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CES Info/Technology Survey 2011

SurveyMonkey

1. Please check which grade you are in:

		Response Percent	Response Count
2		14.6%	19
3		**53.8%**	**70**
4		31.5%	41
		answered question	**130**
		skipped question	**3**

2. How often do you use the Library Media Center (LMC)?

		Response Percent	Response Count
Two or more times a week		**49.2%**	**65**
Once a week		22.0%	29
Once a month		0.0%	0
Only when required for classes		28.8%	38
		answered question	**132**
		skipped question	**1**

3. Do you have enough time to visit the LMC?

	Response Percent	Response Count
Yes	**74.4%**	**99**
No	25.6%	34
	answered question	**133**
	skipped question	**0**

4. Do you think the books and materials in the LMC are up-to-date?

	Response Percent	Response Count
Yes	**64.3%**	**83**
No	35.7%	46
	answered question	**129**
	skipped question	**4**

5. I use the following (O)often (S)sometimes (N) never

	Often	Sometimes	Never	Rating Average	Response Count
Fiction books (not real, made-up)	**54.5% (72)**	37.9% (50)	7.6% (10)	1.53	132
Nonfiction books (informational)	45.1% (60)	**51.1% (68)**	3.8% (5)	1.59	133
Reference books	8.5% (11)	**50.4% (65)**	41.1% (53)	2.33	129
Newspapers	6.2% (8)	17.7% (23)	**76.2% (99)**	2.70	130
Magazines	33.1% (42)	**49.6% (63)**	17.3% (22)	1.84	127
Card catalog	27.9% (36)	**48.1% (62)**	24.0% (31)	1.96	129
Internet	32.3% (41)	**52.8% (67)**	15.0% (19)	1.83	127
Library web page from home	13.1% (17)	37.7% (49)	**49.2% (64)**	2.36	130
Online databases (EBSCO, Badgerlink, etc)	7.0% (9)	45.0% (58)	**48.1% (62)**	2.41	129
			answered question		**133**
			skipped question		**0**

6. Does the LMC usually have the materials you want or need?

		Response Percent	Response Count
Yes		**80.3%**	**106**
No		19.7%	26
	answered question		**132**
	skipped question		**1**

7. Do you ask for help from the LMC staff when you can't find what you need?

	Response Percent	Response Count
Yes	**87.1%**	**115**
No	12.9%	17
	answered question	**132**
	skipped question	**1**

8. Are there enough people working in the LMC, so that you can get help when you need it?

	Response Percent	Response Count
Yes	**55.7%**	**73**
No	44.3%	58
	answered question	**131**
	skipped question	**2**

9. Is the LMC open for you when YOU need it?

	Response Percent	Response Count
Yes	**84.1%**	**111**
No	15.9%	21
	answered question	**132**
	skipped question	**1**

10. If NO, when would you like to see it open?

	Response Count
	33
answered question	**33**
skipped question	**100**

11. I mainly use the LMC for:

		Response Percent	Response Count
research		53.0%	70
reading		60.6%	80
homework		29.5%	39
book checkout (schoolwork)		38.6%	51
book checkout (pleasure)		62.9%	83
Accelerated Reader		**72.0%**	**95**
browse magazines and newspapers		16.7%	22
meet friends		14.4%	19
	answered question	**132**	
	skipped question	**1**	

12. Basic computer use

	Response Percent	Response Count
I do not use a computer.	1.5%	2
I can use programs I know with assistance.	11.5%	15
I can select, open, use and close programs I know on my own.	33.6%	44
I can select, open, use and close new programs that are like programs I already know on my own.	**53.4%**	**70**
	answered question	**131**
	skipped question	**2**

13. Basic computer knowledge

	Response Percent	Response Count
I do not understand the parts of the computer or how they work.	3.1%	4
I can use the mouse, arrows, and menus with assistance.	4.6%	6
I can turn on the computer, log on and use a mouse, keys and menus with assistance.	6.9%	9
I can turn on the computer, log on and use a mouse, keys and menus on my own.	**85.5%**	**112**
	answered question	**131**
	skipped question	**2**

14. Keyboarding

		Response Percent	Response Count
I do not know where all the keys are on the keyboard.		4.6%	6
I can find and use the keys on the keyboard if I look for them.		22.3%	29
I know the correct fingering on the keyboard but I have to look for the keys.		**65.4%**	**85**
I know the correct fingering on the keyboard and can type without looking.		7.7%	10
		answered question	**130**
		skipped question	**3**

15. Word Processing

		Response Percent	Response Count
I do not use a word processor (Word).		17.1%	22
I can use a word processor for simple writing.		27.1%	35
I use the tools of the word processor, such as spell check, grammar check, change fonts, print preview.		20.2%	26
I use the word processor to edit and revise rough drafts to produce a final copy.		**35.7%**	**46**
		answered question	**129**
		skipped question	**4**

16. File Management

	Response Percent	Response Count
I do not save any documents I create using the computer.	24.8%	32
I can select, open and save documents to the network (H drive) or flashdrive.	**53.5%**	**69**
I create my own folders to keep files organized.	16.3%	21
I move files between folders and drives.	5.4%	7
	answered question	**129**
	skipped question	**4**

17. Graphics

	Response Percent	Response Count
I do not use graphics (pictures) with my word processing pieces.	17.3%	22
I use clip art and/or draw pictures.	**64.6%**	**82**
I edit clip art, scan and import graphics from other sources and edit them.	11.0%	14
I create graphics.	7.1%	9
	answered question	**127**
	skipped question	**6**

18. Desktop Publishing

		Response Percent	Response Count
I do not use a publishing program (Publisher).		**70.5%**	**91**
I use ready made cards or signs.		10.1%	13
I create my own signs, card, newsletters, and brochures on a blank page with clip art, words, or columns.		9.3%	12
I create my own publications to show and tell others what I have learned.		10.1%	13
		answered question	**129**
		skipped question	**4**

19. Technology Presentation (Powerpoint)

		Response Percent	Response Count
I do not use technology for presentations.		**78.3%**	**101**
I use templates or wizards to create multimedia presentations.		4.7%	6
I combine text with pictures imported from different sources, to create original multimedia presentations.		13.2%	17
I design multimedia presentations employing audio, video and still graphics to share ideas.		3.9%	5
		answered question	**129**
		skipped question	**4**

20. Graphic Organizers (Kidspiration, Inspiration)

	Response Percent	Response Count
I do not use graphic organizers.	24.8%	32
I use templates or wizards to create charts or timelines.	20.9%	27
I combine text with pictures imported from different sources, to create original charts.	**47.3%**	**61**
I design multimedia presentations employing audio, video and still graphics to share ideas.	7.0%	9
	answered question	**129**
	skipped question	**4**

21. Research/Information searching

	Response Percent	Response Count
I do not use electronic sources to find information.	18.1%	23
I find information from electronic sources (World Book, Internet).	**36.2%**	**46**
I use several electronic sources to find information.	24.4%	31
I analyze and evaluate the information I've gathered.	21.3%	27
	answered question	**127**
	skipped question	**6**

22. Database

		Response Percent	Response Count
I do not use a database.		**45.7%**	**59**
I can find information from a pre-made database such as the card catalog (Destiny) and Badgerlink.		42.6%	55
I create my own database and add or delete information using Access.		2.3%	3
I create reports from a database to answer questions.		9.3%	12
		answered question	**129**
		skipped question	**4**

23. Spreadsheet

		Response Percent	Response Count
I do not use a spreadsheet.		**79.7%**	**102**
I enter data in a spreadsheet and create charts (Excel).		7.8%	10
I choose a chart and make a title and labels.		10.2%	13
I use formulas to help analyze data in a spreadsheet.		2.3%	3
		answered question	**128**
		skipped question	**5**

24. E-mail (at home)

	Response Percent	Response Count
I do not use e-mail.	**45.0%**	**58**
I can write, send and retrieve e-mail with help.	23.3%	30
I can write, send and retrieve e-mail by myself.	29.5%	38
I use e-mail to request and send information for research.	2.3%	3
	answered question	**129**
	skipped question	**4**

25. Internet

	Response Percent	Response Count
I do not use the Internet.	3.9%	5
I visit Internet sites selected by my teacher with help.	21.7%	28
I visit Internet sites selected by my teacher by myself.	28.7%	37
I use search tools to locate information on the Internet.	**45.7%**	**59**
	answered question	**129**
	skipped question	**4**

26. Responsible Use

	Response Percent	Response Count
I do not understand what responsible use of computers and software means.	11.8%	15
I use the computer, printer and software properly.	**37.8%**	**48**
I understand and follow school rules about language, copyright, privacy, etc.	33.9%	43
I model responsible use and teach others.	16.5%	21
answered question		**127**
skipped question		**6**

27. I have my own cellphone.

	Response Percent	Response Count
Yes	25.0%	31
No	**75.0%**	**93**
answered question		**124**
skipped question		**9**

28. I have a computer at home.

	Response Percent	Response Count
Yes	**88.3%**	**113**
No	11.7%	15
answered question		**128**
skipped question		**5**

29. I use the Internet when at home.

	Response Percent	Response Count
Yes	**81.9%**	**104**
No	18.1%	23
answered question		**127**
skipped question		**6**

30. I have my own e-mail account at home.

	Response Percent	Response Count
Yes	30.2%	38
No	**69.8%**	**88**
answered question		**126**
skipped question		**7**

31. I use my computer at home to:

	Response Percent	Response Count
word process (type assignments, letters, etc)	27.8%	35
research on the Internet	50.8%	64
play games	**89.7%**	**113**
e-mail or instant messaging	23.8%	30
chat or blog	25.4%	32
download games/music	51.6%	65
share photographs online	9.5%	12
view YouTube or Facebook	38.1%	48
Play in virtual worlds like Webkinz, Club Penguin, or Whyville	24.6%	31
Check my Grades	13.5%	17
other	35.7%	45
	answered question	**126**
	skipped question	**7**

32. I would like to use school computers to:

	Response Percent	Response Count
Check my grades	52.8%	28
Complete writing assignments	56.6%	30
Create a PowerPoint	22.6%	12
Do online experiments for science	32.1%	17
E-mail, IM, or text message my friends	37.7%	20
E-mail, IM, or text message my teacher	28.3%	15
Listen to books being read aloud	41.5%	22
Play learning games	**73.6%**	**39**
Practice my math	52.8%	28
Send homework to my teacher	20.8%	11
Take tests	50.9%	27
Use the internet to learn about things	60.4%	32
Watch videos	69.8%	37
None of the above	1.9%	1
	answered question	**53**
	skipped question	**80**

Survey of Technology Use 2011-2012

1. Gender

	Response Percent	Response Count
Male	41.4%	159
Female	**58.6%**	**225**
	answered question	**384**
	skipped question	**0**

2. Grade Level:

	Response Percent	Response Count
5th	**22.4%**	**86**
6th	16.7%	64
7th	16.1%	62
8th	9.4%	36
9th	12.2%	47
10th	5.2%	20
11th	14.1%	54
12th	0.5%	2
Parent	3.4%	13
	answered question	**384**
	skipped question	**0**

3. Indicate how often you use the following technology.

	Never	Rarely	Monthly	Weekly	Daily	Response Count
cell phone	13.3% (50)	15.4% (58)	2.9% (11)	10.6% (40)	**57.8% (218)**	377
MP3 or other music player	9.5% (36)	17.0% (64)	7.4% (28)	20.4% (77)	**45.6% (172)**	377
television	1.6% (6)	9.6% (36)	3.2% (12)	17.6% (66)	**68.1% (256)**	376
computer	1.6% (6)	9.2% (35)	3.9% (15)	30.8% (117)	**54.5% (207)**	380
hand-held computer device	**29.8% (111)**	19.6% (73)	12.1% (45)	14.7% (55)	23.9% (89)	373
video games	19.0% (71)	22.7% (85)	13.4% (50)	21.1% (79)	**23.8% (89)**	374
digital camera	15.2% (57)	**35.8% (134)**	21.4% (80)	20.9% (78)	6.7% (25)	374
DVD player	8.6% (32)	24.7% (92)	26.1% (97)	**30.1% (112)**	10.5% (39)	372
other digital technology, please specify below	**64.0% (146)**	11.8% (27)	5.7% (13)	9.2% (21)	9.2% (21)	228
					Other (please specify)	48

answered question	**381**
skipped question	**3**

4. Indicate how much time you spend doing the following:

	Never	Less than 1 hour per day	Up to 1 hour daily	2-4 hours per day	More than 4 hours per day	Response Count
cell phone - calls	17.4% (66)	**62.0% (235)**	10.3% (39)	6.6% (25)	3.7% (14)	379
cell phone - text messaging (incoming and outgoing)	**27.6% (102)**	22.5% (83)	14.4% (53)	12.7% (47)	22.8% (84)	369
MP3 or other music/videoplayer	15.4% (57)	**35.6% (132)**	24.5% (91)	15.4% (57)	9.2% (34)	371
computer: non internet (word, excel, etc.)	23.4% (87)	**48.7% (181)**	17.7% (66)	6.7% (25)	3.5% (13)	372
computer: social networking (Facebook, Twitter, My Space)	**33.4% (125)**	25.1% (94)	20.9% (78)	12.8% (48)	7.8% (29)	374
computer: e-mail	**50.4% (188)**	34.3% (128)	9.4% (35)	3.2% (12)	2.7% (10)	373
computer: instant messaging (MSN, Skype, Yahoo, etc.)	**67.4% (254)**	20.4% (77)	6.1% (23)	4.2% (16)	1.9% (7)	377
video games offline (Wii, Xbox 360, computer, etc.)	26.9% (101)	**34.8% (131)**	17.8% (67)	11.2% (42)	9.3% (35)	376
video games online single player	**53.5% (199)**	21.0% (78)	12.4% (46)	8.3% (31)	4.8% (18)	372
video games online multiplayer	**60.0% (225)**	17.3% (65)	9.3% (35)	7.5% (28)	5.9% (22)	375
computer other internet use (news, video, research)	18.6% (69)	**48.8% (181)**	21.6% (80)	6.5% (24)	4.6% (17)	371
television or other video	5.6% (21)	24.9% (93)	**28.6% (107)**	26.5% (99)	14.4% (54)	374
					answered question	**381**
					skipped question	**3**

5. Have you ever....

	Yes	No	Response Count
Created a profile in a social networking suite?	**60.0% (228)**	40.0% (152)	380
Put personally identifying information on a website (real name, birth date, age, location, etc.)?	49.6% (188)	**50.4% (191)**	379
Posted a picture of yourself on the Web?	**54.7% (208)**	45.3% (172)	380
Chatted with someone you've never met face-to-face?	32.2% (122)	**67.8% (257)**	379
Posted a picture of yourself on the Web that you would not want your parents (or other significant adults) to see?	4.0% (15)	**96.0% (364)**	379
Posted a picture of someone else on the Web that the person would object to?	3.4% (13)	**96.6% (366)**	379
Taken a picture of someone with a cell phone without their knowledge?	21.4% (81)	**78.6% (297)**	378
Created an alternate account on a site to avoid having adults such as your parents see your other account?	6.3% (24)	**93.7% (355)**	379
Posted something you would not want your parents to see?	11.9% (45)	**88.1% (333)**	378
Taken pictures or video at school with a camera or phone?	43.3% (164)	**56.7% (215)**	379
Posted pictures from school on a public site?	13.0% (49)	**87.0% (327)**	376
Lied/misrepresented yourself on the Internet?	14.8% (56)	**85.2% (322)**	378
Denied someone access to your social networking (Facebook,			

Twitter, My Space) account because you did not want them to see what was on there?	24.4% (92)	**75.6% (285)**	377
Made new friends online that you've never met face-to-face?	33.2% (126)	**66.8% (253)**	379
Cheated using technology such as iPod, graphing calculator, cell phones, etc.?	13.5% (51)	**86.5% (328)**	379
Used material from the Internet without citing the source?	34.8% (131)	**65.2% (245)**	376
Met someone in person that you first met on the Internet?	16.4% (62)	**83.6% (315)**	377
Texted a message to someone that you would not say to them face-to-face?	27.5% (102)	**72.5% (269)**	371
		answered question	**381**
		skipped question	**3**

6. Do you feel it is okay to....

	Yes	No	Response Count
Text message during class time?	17.3% (65)	**82.7% (311)**	376
Express your opinions of others on a website?	29.6% (111)	**70.4% (264)**	375
Post pictures or video of others without their permission?	7.4% (28)	**92.6% (348)**	376
Chat with someone you've never met face-to-face?	32.8% (123)	**67.2% (252)**	375
Use a webcam to send pictures of yourself to others that you would not let your parents (or other significant adults) know about?	3.7% (14)	**96.3% (362)**	376
Cheat using technology such as iPod, graphing calculator, cell phones, etc.?	11.0% (41)	**89.0% (333)**	374
Find answers on the Internet to use on homework or tests to avoid doing your own work?	20.6% (77)	**79.4% (297)**	374
Meet someone in person who you first met on the Internet?	24.0% (89)	**76.0% (282)**	371
Text a message to someone because you would not want to say it face-to-face?	30.3% (113)	**69.7% (260)**	373
		answered question	**376**
		skipped question	**8**

7. Do you feel it is okay for.....

	Yes	No	Response Count
Parents to access your e-mail?	**57.6% (217)**	42.4% (160)	377
Parents to access your social networking sites (Facebook, Twitter, My Space, etc.)?	**52.4% (197)**	47.6% (179)	376
Teachers to access your social networking sites?	12.7% (48)	**87.3% (329)**	377
School administrators to access your social networking sites?	14.3% (54)	**85.7% (323)**	377
School administrators to access your school e-mail?	29.2% (110)	**70.8% (267)**	377
Employers to access your social networking sites?	15.2% (57)	**84.8% (318)**	375
Friends to access your social networking sites?	36.3% (137)	**63.7% (240)**	377
College admissions to access your social networking sites?	23.7% (89)	**76.3% (287)**	376
Schools to intervene in social conflicts that arise out of the use of technology outside of school?	28.7% (108)	**71.3% (268)**	376
Do you know of any conflict or situation at school that was caused or made worse by the use of texting, chat, e-mail or social networking sites?	21.5% (79)	**78.5% (289)**	368
		If yes to last item, please explain.	70

answered question	**377**
skipped question	**7**



2011 Speak Up Survey

Speak Up 2011

Grades 3 - 5

District: CHILTON SCHOOL DISTRICT

Results based on 161 survey(s).
Note: Survey responses are based upon the number of individuals that responded to the specific question.

1 What grade are you in?

Response	# of Responses	% of Responses	National %
Grade 3	52	33%	29%
Grade 4	22	14%	34%
Grade 5	84	53%	38%

2 Are you a…

Response	# of Responses	% of Responses	National %
Girl	87	56%	50%
Boy	68	44%	50%

3 Thinking about the other students in your class, do you…

Response	# of Responses	% of Responses	National %
Know more than other students about technology	36	23%	23%
Know about the same as other students about technology	93	60%	61%
Know less than other students about technology	26	17%	16%

4 **Which of these things do you have for your own use? (check all that apply)**

Response	# of Responses	% of Responses	National %
Cell Phone (that does not have Internet access)	47	30%	25%
Smartphone such as iPhone, Droid, Blackberry	18	12%	21%
Computer that is provided to me by my school	44	28%	26%
My own personal computer or laptop	41	26%	40%
Tablet computer (such as: iPad)	15	10%	18%
Digital Reader (such as: Kindle, Nook)	16	10%	9%
MP3 player or iPod	91	58%	52%
Hand-held game like Nintendo DS or GameBoy	121	78%	57%
Video game player like Xbox, Playstation or Wii	125	80%	70%
Other	33	21%	16%

5 **At home, do you have a computer?**

Response	# of Responses	% of Responses	National %
Yes, but it does not have the Internet	14	9%	9%
Yes, and it has slow Internet (dial-up)	40	26%	25%
Yes, and it has fast Internet (such as: DSL, cable, Broadband)	85	55%	56%
No, I only use the Internet at the library or my afterschool program	8	5%	2%
No, I only use a computer or the Internet at school	7	5%	8%

6 **How often do you use the computers at your school?**

Response	# of Responses	% of Responses	National %
Every day	18	12%	15%

A couple of days a week	96	62%	56%
A couple of days a month	22	14%	15%
Never	1	1%	1%
I don't know	19	12%	13%

7 **How do you use technology for schoolwork? (check all that apply)**

Response	# of Responses	% of Responses	National %
Check on my grades	85	55%	26%
Complete writing assignments	81	52%	37%
Create a Powerpoint	30	19%	35%
Do online experiments for science	17	11%	16%
Email, IM or text message my teacher	21	14%	9%
Email, IM or text message other students	35	23%	12%
Get help from an online tutor	5	3%	4%
Listen to a podcast for class	3	2%	6%
Play educational games	112	72%	58%
Post to blogs or wikis (like a journal)	4	3%	8%
Practice math problems	88	57%	49%
Take a class online	6	4%	4%
Take tests online	70	45%	37%
Upload assignments to school portal	6	4%	4%
Use online textbooks	3	2%	12%
Use the Internet for research	89	57%	51%
Watch a video to help with my homework	38	25%	19%
None of the above	7	5%	6%

8 **What keeps you from using technology at your school? (check all that apply)**

Response	# of Responses	% of Responses	National %
Computers are not always available or easy to get to	54	36%	40%
I am unable to access the Internet	5	3%	7%
I cannot access my personal email account	14	9%	12%

I cannot email or IM to classmates	11	7%	13%
I cannot use my own laptop	14	9%	16%
I cannot use my own cell phone, smartphone, tablet computer or MP3 player	22	14%	22%
Internet is not fast enough	16	11%	11%
My school blocks websites I need	26	17%	16%
None of the above	67	44%	28%
Other	17	11%	11%

9 **What could your school do to make it easier to use technology?**

Response	# of Responses	% of Responses	National %
Let me access the school network from home or school	53	35%	28%
Let me access the websites I need	64	42%	32%
Let me recharge my devices at school	25	17%	14%
Let me get to my schoolwork online from home	48	32%	28%
Let me use my own cell phone, smartphone, tablet computer or MP3 player	32	21%	27%
Let me use my own computer at school	32	21%	23%
Let me work with an online tutor	11	7%	8%
Make it easy to get to the Internet	51	34%	25%
Provide me a laptop that I can use at school	45	30%	29%
Provide tools for me to communicate with my teacher(s) at anytime	33	22%	18%
Provide tools for me to organize my work	33	22%	21%
Provide tools so I can email, IM or text my classmates	31	21%	16%
Provide tools to make it easy to work with each other at school	23	15%	19%

Nothing - I like the way things are	29	19%	21%
Other	8	5%	7%

10 **Thinking about how you like to read, which of these is true for you?**

Response	# of Responses	% of Responses	National %
My favorite way to read is to read stories on a computer or iPad	40	26%	31%
My favorite way to read is with printed books	79	52%	47%
I think it is better for the environment to read on the computer	15	10%	12%
Reading a long time on the computer hurts my eyes	72	47%	29%
I sometimes get distracted when I am reading on the computer	57	37%	22%
Reading is more interesting to me when I am reading on a computer	19	12%	16%
I remember more about the story when I read a printed book	53	35%	29%
I am a better reader because I read more on a computer	14	9%	9%
None of these are true for me	18	12%	11%

11 **If you were allowed to use your own mobile devices like a smartphone (iPhone, Droid, Blackberry) or tablet computer (iPad) at school, how would you use it for schoolwork?**

Response	# of Responses	% of Responses	National %
Check my grades	98	66%	48%
Create a video or podcast in my class	41	28%	22%
Email, IM or text message my classmates	39	26%	23%
Email, IM or text message my teacher	25	17%	19%
Find out about things going on at school	78	53%	42%
Go to my teacher’s website or	24	16%	23%

school portal			
Help other students in my class	62	42%	42%
Learn about activities at school	72	49%	42%
Look up information on the internet	84	57%	53%
Play educational games	102	69%	53%
Read my online textbook	46	31%	27%
Receive reminders and alerts	47	32%	29%
Record a lesson so I can listen to it later	61	41%	34%
Take notes in class	81	55%	52%
Use the calendar	67	45%	33%
Work on projects with my classmates	78	53%	45%



Would you like to take an online class for school?

Response	# of Responses	% of Responses	National %
Yes	42	29%	27%
No	27	18%	28%
Maybe	47	32%	24%
Not sure	22	15%	14%
I don't know what that is	9	6%	6%



Do you like taking tests on the computer?

Response	# of Responses	% of Responses	National %
Yes	64	44%	56%
No	35	24%	18%
Maybe	28	19%	15%
Not sure	17	12%	7%
I have never taken a test on the computer	3	2%	4%



How do you use Internet tools outside of school?

Response	# of Responses	% of Responses	National %
Create a list of websites I want to share with others	23	16%	17%
Create videos to post and share with others	18	12%	18%

Do Internet research on things that interest me	63	43%	44%
Download or listen to music	64	43%	44%
Go to websites for TV shows or sports	52	35%	35%
Go to websites to learn about things	60	41%	36%
Play in virtual worlds like Webkinz, Club Penguin or Whyville	64	43%	36%
Play video or online games	82	55%	55%
Send E-mails or Instant Messages	36	24%	22%
Share photos	27	18%	21%
Talk to others through the Internet	41	28%	28%
Update my profile on websites like Webkinz, Club Penguin, or Whyville	42	28%	20%
Watch videos	74	50%	46%
Write for a blog (like a journal, etc.)	8	5%	12%
I don't use the Internet outside of school	9	6%	6%
None of the above	13	9%	7%

15 **When you grow up, would you like a job that uses science, math or computers?**

Response	# of Responses	% of Responses	National %
No, those sound too hard	7	5%	4%
No, I like other things better	24	16%	16%
No, my parents say that other jobs are better	4	3%	2%
Maybe, I would like to know more about them	22	15%	14%
Yes, I am a little interested in a job like that	23	16%	16%
Yes, I am very interested in a job like that	23	16%	21%
No, I'm interested in other jobs	30	20%	15%
Other	14	10%	12%

16 **When you grow up, would you like to have a job as a teacher?**

Response	# of Responses	% of Responses	National %
No, that sounds too hard	14	10%	8%
No, I like other things better	35	26%	24%
No, my parents say other jobs are better	5	4%	2%
Maybe, I would like to know more about that	7	5%	12%
Yes, I am a little interested in a job like that	15	11%	12%
Yes, I am very interested in a job like that	20	15%	16%
No, I am interested in other jobs	29	21%	18%
Other	11	8%	8%

17 **How would you like to learn more about future jobs and careers?**

Response	# of Responses	% of Responses	National %
Attend a summer camp	31	23%	20%
Attend an after school program	26	19%	22%
Find information on a website	55	41%	43%
Have people from those jobs talk to us at school	41	30%	38%
Join a science or math competition (for example, a science fair)	22	16%	20%
Play an online game where I am working in the career	52	39%	35%
Podcasts or videos about the careers	21	16%	17%
Take a virtual tour of the company or an office	25	19%	21%
Take an online class	28	21%	20%
Use a mobile application to explore careers	12	9%	17%
Use the same tools in my classroom that adults use at work	19	14%	17%
Other	10	7%	10%

18 **Which of these would help you do better in math?**

Response	# of Responses	% of	National %

	Responses		
Being able to text or email my teacher with my questions	41	30%	27%
Having a math website that could help me with my homework	79	59%	51%
Having access to an online math tutor	30	22%	21%
Learning from a teacher who is excited about math	28	21%	29%
Playing online or computer based math games	74	55%	47%
Practicing problems from my textbook	36	27%	25%
Solving real-world problems using math	28	21%	27%
Taking an online math class	30	22%	21%
Using an online textbook	20	15%	17%
Using blocks, counters and shapes	17	13%	15%
Watching math videos	40	30%	29%
Working on math problems with my classmates	49	36%	38%
None of the above	16	12%	8%
Other	5	4%	6%

19 **Read these sentences. Check the box if you agree with them. (Check all that apply)**

Response	# of Responses	% of Responses	National %
Homework helps me practice what I have learned	82	61%	63%
I am doing well in school	100	74%	63%
I am having problems with my school work	18	13%	19%
I am worried about my future	19	14%	19%
I don’t like school	22	16%	17%
I feel I am prepared to do well in school	69	51%	50%
I feel safe at school	71	53%	55%
I know how to be safe when using the Internet	76	56%	53%
I like what I'm learning in	62	46%	50%

school			
I think my school cares about me	66	49%	48%
I want to work hard	74	55%	53%
I wish my classes were more interesting	34	25%	26%
My grades don't match what I know	16	12%	13%
My parents are very involved in my education	54	40%	39%
Teachers or my parents want me to do well in school	82	61%	55%
There is at least one adult at school that I can talk to about problems	48	36%	36%



Imagine you are in charge of building a new school. What would you include in that new school for kids to use? (Check all that apply)

Response	# of Responses	% of Responses	National %
Ability to use the Internet anywhere at school	74	57%	58%
Ability to use my own mobile device or computer at school	62	48%	49%
Computer for every student to use at school such as laptop	81	62%	60%
Do webinars or video conferences with people outside of the school	38	29%	27%
Handheld devices for students to answer questions (clickers)	58	45%	47%
High speed color printer	74	57%	50%
Interactive whiteboards (such as Smartboard, Polyvision)	65	50%	50%
Mobile devices such as smartphone or MP3 player	45	35%	38%
Online Classes	63	48%	39%
Online textbooks	60	46%	40%
Online tutors	53	41%	34%
Online, computer or video games	69	53%	45%
School website or portal	52	40%	37%
Software customized to my learning needs	51	39%	34%

Tablet computers (such as: iPads)	64	49%	48%
Tools to communicate with others (Email, IM or text messaging)	51	39%	33%
Tools to create podcasts or videos	51	39%	31%
Tools to help me organize my schoolwork	68	52%	49%
Tools to work with others (like blogs, wikis, GOOGLE Docs, etc)	51	39%	40%
Other	7	5%	10%

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Blackboard K-12 DreamBox Learning hp K12 schoolwires come together SMART Technologies Wireless Reach

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2011 Speak Up Survey

Speak Up 2011

Grades 6 - 8

District: CHILTON SCHOOL DISTRICT

Results based on 112 survey(s).
Note: Survey responses are based upon the number of individuals that responded to the specific question.

1 What grade are you in?

Response	# of Responses	% of Responses	National %
Grade 6	49	45%	35%
Grade 7	61	55%	32%
Grade 8	0	0%	33%

2 Gender

Response	# of Responses	% of Responses	National %
Girl/Female	66	59%	50%
Boy/Male	46	41%	50%

3 Thinking about the other students in your class, do you consider yourself…

Response	# of Responses	% of Responses	National %
An advanced tech user – more expert than most of the students at my school	23	21%	23%
An average tech user – the same as most of the students at my school	80	72%	71%

A beginner – below the skills of most of the students at my school	8	7%	6%

4 **What types of electronic devices do you have access to for your own use? (check all that apply)**

Response	# of Responses	% of Responses	National %
Cell phone (without Internet access)	66	59%	48%
Smartphone (with Internet access, such as Blackberry, Droid, iPhone)	15	13%	37%
Computer that is provided to me by my school	61	54%	48%
Home computer or laptop	98	88%	84%
Tablet computer (such as iPad)	16	14%	26%
Digital reader (such as: Kindle, Nook)	14	13%	17%
Music or video device (such as: MP3 player, iPod or iPod Touch)	92	82%	77%
Hand-held game (such as: a GameBoy, Nintendo DS)	79	71%	60%
Video Gaming System (such as: Xbox, Playstation, Wii)	94	84%	80%
Other	28	25%	19%

5 **When you are outside of school, what access do you have to the Internet?**

Response	# of Responses	% of Responses	National %
My home computer does not have Internet access	11	10%	6%
My home computer has slow or dialup Internet access	17	15%	15%
My home computer has fast Internet access (such as: DSL, Broadband, or cable)	82	75%	67%
I access the Internet at home through a wifi or 3G/4G mobile device	29	26%	45%
I access the Internet at home through a mobile computer or tablet that was provided to me	10	9%	12%

by my school			
My access to the Internet is through computers at the public library, after school program or community recreation center.	11	10%	8%
My only access to the Internet is at school	4	4%	6%

6 **How do you use technology for schoolwork? (check all that apply)**

Response	# of Responses	% of Responses	National %
Access class information (such as: grades, teachers notes or presentations, podcasts)	90	82%	68%
Access online databases or real time data such as from maps	31	28%	32%
Communicate with other students via email, IM or text messaging	45	41%	50%
Communicate with other students via video conference, webcam or skype	15	14%	22%
Communicate with teachers via email, IM or text messaging	11	10%	26%
Complete writing assignments	73	66%	70%
Conduct Internet research	86	78%	74%
Conduct virtual experiments or simulations	20	18%	22%
Create slide shows, videos or web pages for an assignment	69	63%	59%
Get help from an online tutor	7	6%	7%
Listen to a podcast for a class	8	7%	10%
Play educational games	59	54%	51%
Post to blogs or wikis	6	5%	14%
Record or video a teacher lecture or lab	8	7%	5%
Take tests online	46	42%	44%
Turn in papers for plagiarism check (such as: TurnItIn)	2	2%	8%
Upload assignments and homework to school portal	9	8%	23%
Use mobile applications to keep organized	12	11%	16%

Use my social networking site (such as Facebook) to collaborate with classmates on a project	30	27%	30%
Use online textbooks or other online curriculum	22	20%	31%
Use Twitter to communicate or follow others	5	5%	9%
Other	9	8%	10%

7 **In the future, some schools may be required to implement online tests in place of paper-based standardized tests. How comfortable are you with the idea of having your academic achievement measured through an online test?**

Response	# of Responses	% of Responses	National %
Very comfortable	41	38%	38%
Somewhat comfortable	33	30%	30%
No opinion	22	20%	20%
Somewhat uncomfortable	12	11%	7%
Very uncomfortable	1	1%	4%

8 **Besides not having enough time in your school day, what are the major obstacles to using technology in your school? (check all that apply)**

Response	# of Responses	% of Responses	National %
Cannot access Facebook or other social networking sites	49	45%	50%
Cannot communicate with classmates using email, text or IM	49	45%	42%
Cannot use my own cell phone, smartphone, tablet computer or MP3 player	57	53%	57%
Cannot use my own laptop in school	39	36%	41%
My assignments don't require using technology	29	27%	18%
Not enough computers or they don't often work	29	27%	25%
Teachers don't know how to use the technology	11	10%	10%
Teachers limit our technology use	44	41%	40%
The Internet is too slow	39	36%	30%

There are too many rules against using technology at my school	53	49%	43%
Websites that I need are blocked (through school filters or firewalls)	69	64%	49%
Not a big deal. I rarely use the technology at my school	14	13%	15%
Other	6	6%	8%

9 **How could your school make it easier for you to use technology for schoolwork? (check all that apply)**

Response	# of Responses	% of Responses	National %
Allow greater access to the websites I need	84	79%	68%
Let me access the school network from home or school	41	38%	38%
Let me recharge my devices at school	25	23%	34%
Let me use my own cell phone, smartphone, tablet computer or MP3 player	53	50%	56%
Let me use my own laptop or netbook during the school day	41	38%	42%
Provide 24/7 access to my teachers	24	22%	25%
Provide access to an online tutor	22	21%	19%
Provide access to social networking sites (such as Facebook)	47	44%	41%
Provide class work, assignments and resources online	41	38%	42%
Provide me a laptop or other mobile devices that I can use at school	32	30%	38%
Provide me with unlimited Internet or Wi-Fi access throughout the school	48	45%	46%
Provide tools for me to communicate with my classmates	44	41%	41%
Provide tools for me to communicate with my teacher(s)	24	22%	32%

Provide tools for me to organize my schoolwork	42	39%	40%
Provide tools to help me collaborate with my classmates on schoolwork	34	32%	32%
Nothing - I like things the way they are	12	11%	10%
Other	5	5%	5%

10 **How much do you agree with this statement: My school is doing a good job of using technology to enhance my learning. (select one)**

Response	# of Responses	% of Responses	National %
Strongly agree	6	6%	11%
Agree	34	31%	35%
Disagree	21	19%	15%
Strongly disagree	13	12%	10%
No opinion	23	21%	14%
I don't know	11	10%	14%

11 **Many schools are exploring how to leverage mobile devices such as smartphones and tablet computers (iPads) to improve student achievement. How would you like to use a mobile device to help you with your schoolwork? (check all that apply)**

Response	# of Responses	% of Responses	National %
Access online textbooks	59	58%	61%
Access social networking sites (such as Facebook)	44	43%	47%
Access the school network from home or school	52	51%	49%
Check grades	85	83%	76%
Communicate with classmates and teachers	46	45%	59%
Create and share videos or podcasts	22	22%	33%
Learn about school activities	44	43%	48%
Look up information on the Internet	72	71%	70%
Organize my schoolwork assignments	49	48%	53%
Play educational games	66	65%	55%
Receive reminders and alerts about upcoming tests or	58	57%	62%

assignment due dates			
Record or video lectures or labs so that I can review them later	16	16%	33%
Take notes for class	60	59%	67%
Upload or download information from my teacher's website and/or the school's portal	21	21%	36%
Use mobile apps to make me more productive	27	26%	43%
Use the calendar	54	53%	47%
Work on projects with my classmates	57	56%	60%
Write papers or do homework assignments	47	46%	54%
Other	5	5%	6%

12 **What has been your experience with taking an online class where the instruction and content was delivered primarily over the Internet?**

Response	# of Responses	% of Responses	National %
I am in an online school where all of my classes are delivered over the Internet	7	7%	7%
I have taken at least one self-study online class for school credit in addition to taking traditional classes in school	11	11%	10%
I have taken at least one teacher-led online class for school credit in addition to taking traditional classes in school	8	8%	10%
I have taken at least one online class on my own to pursue my own interests	9	9%	9%
I have not taken an online class but would be interested in doing so	45	46%	47%
I am not interested in taking an online class	42	43%	38%

13 **What would be the most significant benefits to you of taking an online class? (check all that apply)**

Response	# of Responses	% of Responses	National %
Class could better fit my schedule	52	52%	50%
I could earn college credit	42	42%	47%
I would be in control of my learning	52	52%	52%
I would be more comfortable asking my teacher questions	37	37%	43%
I would be more motivated to learn	38	38%	40%
I would feel more connected to school	34	34%	35%
I would get extra help in a subject that is hard for me	47	47%	50%
I would graduate early	26	26%	30%
I would have a greater sense of independence	29	29%	37%
I would receive more attention from my teacher(s)	24	24%	29%
It would be easier for me to succeed	42	42%	43%
It would be easier to review class materials as many times as I want	37	37%	44%
It would be easier to share ideas with my classmates	31	31%	34%
My technology skills would improve	44	44%	47%
Take a class not offered at my school	25	25%	34%
To work at my own pace	61	61%	52%
I am not interested in taking an online class	17	17%	17%
I do not know	15	15%	14%
Other	5	5%	4%

14 **In what subject would you be most interested in taking an online class?**

Response	# of Responses	% of Responses	National %
English/Language Arts	28	28%	30%
Science	33	33%	35%

Math	42	42%	43%
Statistics	9	9%	9%
History/Social Studies	34	34%	32%
Computer Science	16	16%	22%
Art History	15	15%	19%
Health	19	19%	22%
Foreign Language	27	27%	37%
Career training	22	22%	28%
I am not interested in taking an online class	16	16%	19%
Other	9	9%	9%

15 **Some schools now require students to take at least one online class as part of their education. Do you agree or disagree with this policy?**

Response	# of Responses	% of Responses	National %
Strongly agree	14	14%	19%
Agree	33	33%	30%
Disagree	14	14%	17%
Strongly disagree	16	16%	12%
No opinion	23	23%	22%

16 **Thinking about one of your math or science classes this year, which of these best describes that class?**

Response	# of Responses	% of Responses	National %
Traditional class with teacher lectures and textbook assignments	16	16%	15%
Traditional class with teacher lectures, textbook assignments and group projects and/or labs	46	47%	28%
Traditional class where teacher uses technology tools such as interactive white boards, powerpoint presentations and projectors to support instruction	12	12%	33%
Traditional class where teacher and students regularly use digital content, virtual labs, simulations and animations within instruction	3	3%	5%
Traditional class where students direct their own learning	5	5%	4%

through the use of laptops, mobile devices and social media tools			
Blended class where some class periods are spent in a traditional format and others involve self-paced online instruction	5	5%	6%
Online class in a special lab at school with Internet-based lessons and onsite teacher	0	0%	2%
Online class taken in a special lab at school with Internet-based lessons and remote online teacher	3	3%	2%
Online class taken at home with Internet-based lessons and an online teacher	1	1%	2%
Online class taken at home with self-study Internet-based lessons	4	4%	2%
I am not taking a math or science class this year	0	0%	1%
Other	3	3%	1%

17 **Now, imagine your ultimate math classroom. Which of these would be most effective in helping you be more successful in that class?**

Response	# of Responses	% of Responses	National %
Being able to text or email my teacher with my questions	30	30%	46%
Collaborating with my classmates on problem solving tasks	48	48%	49%
Having access to an online math tutor	30	30%	32%
Learning from a teacher who I feel a connection with	27	27%	40%
Learning from a teacher who is excited about math	27	27%	38%
Learning math by solving real-world problems	32	32%	33%
Playing online or computer based math games	48	48%	47%
Practicing problems from my textbook	24	24%	29%

Taking an online math class	20	20%	29%
Understanding the context of math through a virtual reality environment	22	22%	23%
Using a class blog or wiki to share ideas with my classmates	14	14%	23%
Using a mobile device to video math lessons to review later	16	16%	33%
Using an online textbook that I can access through a mobile device	24	24%	31%
Using animations or simulations to help me visualize difficult math concepts	21	21%	28%
Using real time data to understand the context for math	14	14%	21%
None of the above	9	9%	7%
Other	2	2%	4%

18 **Internationally there is tremendous interest in having more students pursue careers in science, technology, math or engineering. Right now, are you interested in a job or career in any of these fields? (select one)**

Response	# of Responses	% of Responses	National %
No, those subjects are too hard for me	7	7%	5%
No, my strengths are in other areas	23	24%	16%
No, my parents say that other jobs are better	1	1%	3%
No, those subjects are not interesting to me	11	11%	15%
Maybe, I would like to know more about those jobs or careers	19	20%	27%
Yes, I am somewhat interested in a job or career in those fields	13	14%	17%
Yes, I am very interested in a job or career in those fields	22	23%	19%

19 **Our national leaders would also like to have more students pursue careers in teaching. Right now, are you interested in a job or career in teaching or a related education field?**

Response	# of Responses	% of Responses	National %

No, my strengths are in other areas	23	25%	27%
No, my parents say that other jobs are better	2	2%	4%
No, teaching does not interest me	26	28%	28%
Maybe, I would like to know more about the different kinds of jobs or careers in teaching	19	20%	23%
Yes, I am somewhat interested in a job or career in teaching	13	14%	11%
Yes, I am very interested in a job or career in teaching	10	11%	7%



Which of the following would help increase your interest in a career you might be thinking about? (check all that apply)

Response	# of Responses	% of Responses	National %
Have a program at school about future careers	44	47%	53%
Have a summer or part time job or internship in my field of interest	46	49%	48%
Learn about careers through "Day in the Life" podcasts or videos	16	17%	26%
Learn about the job through volunteer opportunities	38	41%	42%
Learn from teachers who have worked in the professional field I'm interested in	37	40%	36%
Let career professionals teach lessons at school	35	38%	39%
Participate in career exploration programs after school	18	19%	29%
Participate in career exploration programs during the summer	26	28%	24%
Participate in competitions that allow me to assess my skills against other students	20	22%	27%
Participate in virtual tours of companies	20	22%	25%
Provide access to websites with information about careers	27	29%	30%

Take a career technical education class at school to learn about careers	21	23%	25%
Take a field trip to visit companies and meet successful role models	29	31%	42%
Take a self-assessment test to identify my career interests or strengths	20	22%	29%
Use a mobile application to explore careers	26	28%	28%
Use the same tools in my classroom that professionals use at work	20	22%	23%
Work with mentors who can help me with my college and career planning	22	24%	27%
Other	7	8%	8%

21 **Which of these social media tools or applications do you use outside of school? (check all that apply)**

Response	# of Responses	% of Responses	National %
Communicate with others through discussion boards, social networking sites, chat or online communities	34	39%	45%
Communicate with others through email, IM or text message	50	57%	64%
Contribute to a wiki	6	7%	13%
Create videos to post and share with others	8	9%	20%
Participate in 3D virtual reality environments (such as: Second Life, Whyville)	19	22%	20%
Participate in online games	44	51%	45%
Update my social networking profile (such as Facebook)	41	47%	48%
Upload or download videos, podcasts or photos to/from the Internet	18	21%	28%
Use web tools for writing collaboratively with others	24	28%	30%

(such as: GOOGLE docs, writeboard or letterpop)			
Use web tools to create a list of resources I want to share or remember (such as: delicious, digg, diigo, reddit)	10	11%	14%
Use web tools to notify me about things I'm interested in (such as: news or magazine articles or changes to websites)	20	23%	24%
Write or contribute to a blog (my own or someone else's)	14	16%	16%
None of the above	11	13%	10%
Other	5	6%	6%

22 **How do you define success with your schoolwork?**

Response	# of Responses	% of Responses	National %
Achieving your personal learning goals	50	56%	64%
Being looked up to by your classmates	34	38%	36%
Class rank	34	38%	33%
Development of critical thinking and problem solving skills	30	34%	31%
Getting a good job after graduation	40	45%	52%
Getting into a good college	50	56%	62%
Getting special privileges	26	29%	33%
Good grades	63	71%	75%
Knowing more than others about a subject that interests you	31	35%	37%
Learning more than you thought you would	30	34%	42%
Your parents or family are proud of you	42	47%	55%
School honors or recognitions	39	44%	44%
Self - satisfaction of working hard and trying your best	44	49%	49%
Other	4	4%	4%

23 **How much do you agree with this statement: I prefer to do the majority of my reading for my schoolwork online rather than reading from a printed page of text.**

Response	# of Responses	% of Responses	National %
Strongly agree	28	32%	23%
Agree	12	14%	22%
Disagree	12	14%	15%
Strongly disagree	9	10%	11%
No opinion	12	14%	13%
Not sure	14	16%	16%

24 **Thinking about reading to support homework and class assignments, which of these statements are true for you?**

Response	# of Responses	% of Responses	National %
I read longer when I am reading a printed book or article	27	31%	37%
I prefer to read short articles online	30	35%	34%
It is better for me to print long or complex articles to read	15	17%	14%
I would rather study for a test using printed materials	28	33%	32%
I remember more when I read from a printed text	19	22%	30%
I feel like I am making a contribution to protecting the environment when I read online	21	24%	21%
Reading online is a better fit for my learning style	23	27%	25%
Reading a printed text is a better fit for my learning style	26	30%	28%
Too much online reading creates eyestrain for me	23	27%	29%
I get easily distracted when reading an online article	27	31%	30%
I like that I can easily search terms or words when I am reading an online article	26	30%	30%
I prefer to use a printed text because it is easier to make notes on the page	17	20%	24%

I think you need to learn different skills to effectively comprehend information from an online article	15	17%	15%

25 **In the past year, which of these things have you done on your own (not teacher directed) to improve your education? (check all that apply)**

Response	# of Responses	% of Responses	National %
Created my own video or podcast to help me share my knowledge with others	6	7%	11%
Found an online tutor	4	5%	9%
Found information online that helped me better understand a topic we were studying in class	33	38%	41%
Found experts online who could answer my questions	7	8%	13%
Listened to a podcast about a topic I was interested in	11	13%	14%
Posted to a blog or wiki	14	16%	11%
Sought help from other students through my social networking site	15	17%	20%
Took a self-paced tutorial on a subject	12	14%	12%
Took an online class	13	15%	9%
Took an online test or assessment	14	16%	18%
Tutored other students who needed help	8	9%	14%
Used mobile applications to help with my self-organization	15	17%	20%
Used online writing tools to improve my own writing	17	20%	18%
Used Twitter to send a tweet about something I was studying	3	3%	9%
Watched a video to learn something or to help me with my homework	17	20%	25%
None of the above	22	26%	26%
Other	3	3%	7%

26 **Which of these statements do you agree with? (check all that apply)**

Response	# of Responses	% of Responses	National %
Homework helps me practice what I have learned	40	52%	55%
I am having problems with my schoolwork	22	29%	25%
I am interested in what I'm learning in school	27	35%	39%
I am motivated to do well in school because I like school	30	39%	31%
I am motivated to do well in school because I want to please my teachers or parents	33	43%	50%
I am succeeding academically	32	42%	44%
I am worried about my future	22	29%	25%
I believe my school cares about me as a person	25	32%	31%
I don’t like school	29	38%	27%
I feel I am prepared to succeed in school	31	40%	44%
I feel safe at school	35	45%	38%
I know how to be safe and protect myself when I am online	30	39%	46%
I know what subjects I need to do more studying in to be successful	29	38%	44%
I wish my classes were more interesting	32	42%	44%
My parents are very involved in my education	22	29%	36%
My test scores don't match what I know	20	26%	20%
Teachers or my parents expect me to do well in school	31	40%	51%
There is at least one adult at school that I can talk to about school or personal problems	21	27%	28%

27 **Which of these have been problems for kids at your school? (check all that apply)**

Response	# of Responses	% of Responses	National %
Approached by strangers online	10	13%	18%

Being harassed online with hurtful texts or photos	26	34%	29%
Seeing websites with inappropriate content	13	17%	26%
Sharing suggestive text or photos	17	22%	24%
Sharing too much personal information online	22	29%	29%
Spending too much time online	33	43%	36%
Strangers asking to meet in person	12	16%	16%
Students' mobile devices have been stolen	29	38%	36%
Students using mobile devices to cheat	13	17%	23%
Students using others' ideas as their own (plagiarism)	23	30%	28%
None of the above	17	22%	29%
Other	3	4%	7%

28 **Imagine you are designing the ultimate school. Which of these tools would have the greatest positive impact on your learning? (Check all that apply)**

Response	# of Responses	% of Responses	National %
Ability to access the Internet anywhere at school	47	65%	70%
Ability to use my own mobile devices	33	46%	63%
Adaptive learning software which adjusts levels of difficulty and content to address your needs	28	39%	45%
Chat rooms to discuss topics with students while in class	35	49%	55%
Collaboration tools (such as: blogs, social networking sites, wikis, bookmarking)	26	36%	43%
Computer for every student to use at school (such as: laptop, netbook)	33	46%	63%
Digital content (such as: databases, electronic books, animations, videos etc)	28	39%	46%
Digital media creation tools	24	33%	45%

(video, audio)			
Digital reader (such as: Kindle, Nook)	29	40%	49%
Electronic portfolios for students	23	32%	42%
Games or virtual simulations	28	39%	52%
Handheld student response systems	19	26%	41%
High speed color printer	38	53%	53%
Instant messaging or text messaging tools	23	32%	46%
Interactive whiteboards (such as: Smartboards, Polyvision)	27	38%	51%
Learning management systems (such as: Blackboard, Moodle, Angel)	15	21%	32%
Mobile devices such as smartphones or MP3 players	22	31%	46%
Online classes	24	33%	41%
Online tests and assessments	27	38%	46%
Online textbooks	30	42%	48%
Online tutors	22	31%	36%
School website or portal	18	25%	39%
Tablet computer (such as iPad)	33	46%	52%
Tools to help me organize my work (such as: organize my assignments, take notes, organize my ideas)	23	32%	44%
Video conferences and webinars	13	18%	28%
Virtual or online whiteboard	20	28%	37%
Virtual reality games or environments	22	31%	36%
Other	5	7%	7%



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2011 Speak Up Survey

Speak Up 2011

Librarians & Media Specialists

District: CHILTON SCHOOL DISTRICT

Results based on 2 survey(s).
Note: Survey responses are based upon the number of individuals that responded to the specific question.

1 What is your current job responsibility? (select one)

Response	# of Responses	% of Responses	National %
Librarian	0	0%	13%
Librarian Media Specialist	2	100%	36%
Library Assistant	0	0%	8%
Media Specialist	0	0%	6%
Teacher Librarian	0	0%	9%
Instructional Technology Specialist	0	0%	14%
Other	0	0%	15%

2 Where do you primarily work? (select one)

Response	# of Responses	% of Responses	National %
School Site	2	100%	95%
District	0	0%	3%
Public Library	0	0%	1%
Museum (or other public institution)	0	0%	0%
Other	0	0%	1%

3 Thinking about your peers, do you consider yourself..

Response	# of Responses	% of Responses	National %
An advanced tech user – more expert than most of my peers	1	50%	57%
An average tech user – about the same as my peers	1	50%	39%
A beginning tech user – less developed than my peers	0	0%	4%

4 What types of electronic devices do you have access to for your own use? (check all that apply)

Response	# of Responses	% of Responses	National %
Cell phone (without Internet access)	1	50%	48%
Smartphone (with Internet access such as: Blackberry, Droid, iPhone)	1	50%	53%
Computer provided to me by my school or district	1	50%	82%
My own personal laptop or other computer	2	100%	86%
Tablet computer (such as: iPad)	1	50%	37%
Digital reader (such as: Kindle, Nook)	1	50%	38%
Music or video device (such as: MP3 player or iPod)	2	100%	69%
Handheld game (such as: GameBoy, Nintendo DS)	0	0%	21%
Video Gaming System (xBox, Playstation, Wii)	0	0%	43%
Other	0	0%	5%

5 How important is the effective implementation of instructional technology to the success of students in your school/district/community? (select one)

Response	# of Responses	% of Responses	National %
Extremely Important	1	50%	71%
Important	1	50%	25%
Somewhat Important	0	0%	3%
Not Important	0	0%	1%

6 **How do you use technology to support the teachers? (check all that apply)**

Response	# of Responses	% of Responses	National %
Acquire and catalogue resources online	2	100%	73%
Answer questions about how to use various types of technology (software or hardware)	2	100%	81%
Conduct Internet research for teachers	2	100%	71%
Create resource collections	1	50%	65%
Create technology lessons for teachers	0	0%	42%
Create videos, podcasts or multi-media presentations for instructional purposes	1	50%	46%
Evaluate software for instructional use	1	50%	40%
Find digital content (such as: games, animations, simulations, 3D content) for teachers to use in their lessons	1	50%	51%
Find podcasts, videos or presentations that can be used in lessons	0	0%	50%
Help teachers create videos, podcasts or multi-media presentations	1	50%	42%
Identify text-based resources (such as: electronic textbooks, newspapers, magazines, digital archives, digital libraries)	2	100%	63%
Make purchasing recommendations for technology (such as: hardware, software, subscription services, electronic resources, digital content, etc)	2	100%	56%
Manage online subscriptions	2	100%	41%
Manage website or portal	0	0%	56%
Participate with teachers in a professional learning community	1	50%	67%

Provide information about teaching digital citizenship and/or media literacy	2	100%	58%
Publish list of instructional resources	1	50%	50%
Train teachers about how to locate or evaluate digital content	1	50%	46%
Upload resources to library portal (such as: digital content, presentations, podcasts, recommended websites, articles, e-books)	0	0%	44%
This is not part of my current job responsibilities	0	0%	8%
Other	0	0%	4%

7 **Currently who has the primary responsibility for identifying, evaluating and recommending the digital content used in classrooms?**

Response	# of Responses	% of Responses	National %
A district curriculum committee	0	0%	20%
A school based curriculum committee	1	50%	5%
Curriculum Specialist	0	0%	3%
Instructional Technology Specialist or Coordinator	0	0%	17%
Principal	0	0%	5%
Librarian/Media Specialist	0	0%	5%
Teachers identify their own digital content	1	50%	21%
I don't know	0	0%	17%
Other	0	0%	6%

8 **What types of digital content are you currently recommending to teachers? (check all that apply)**

Response	# of Responses	% of Responses	National %
3D Content	0	0%	5%
Animations	0	0%	23%
Electronic book subscriptions	0	0%	36%
Game-based environments	0	0%	19%
Intelligent adaptive software	0	0%	10%
Online curriculum	0	0%	37%
Online databases (such as:	2	100%	54%

census data, education statistics)			
Online periodical, news or journal subscriptions	2	100%	50%
Online subscription service of digital content	1	50%	36%
Online supplemental materials	0	0%	42%
Online textbooks	0	0%	21%
Podcasts or video (such as: iTunes, YouTube, TeacherTube, SchoolTube, etc)	1	50%	47%
Real-time data (such as: population, weather, NASA, GOOGLE earth, GIS, etc.)	1	50%	43%
Simulations	0	0%	16%
Software to help students develop skills (reading, writing, math, foreign language)	1	50%	42%
Teaching aids such as lesson plans, interventions, assessment software	1	50%	44%
Tutorials	2	100%	33%
Virtual field trips	1	50%	35%
Virtual labs	0	0%	13%
This is not part of my current job responsibilities	0	0%	17%
Other	0	0%	3%



What are the most effective ways that you learn about new digital content to recommend to teachers?

Response	# of Responses	% of Responses	National %
Ask other teachers for recommendations	0	0%	43%
Attend conferences	2	100%	60%
Attend webinars or virtual conferences	2	100%	42%
Conduct Internet search	0	0%	64%
Look at the resources students are using	0	0%	37%
Look for resources published by content expert organization (such as: National Science Foundation, universities)	0	0%	35%
Look for resources published by	0	0%	43%

established media or content producer (such as: NBC, Discovery, PBS)			
Review journal articles	1	50%	44%
Review recommendations from education membership associations (or organizations)	1	50%	41%
Review recommendations from State Department of Education or Ministry of Education	0	0%	22%
Review recommendations in education blogs or wikis	1	50%	42%
Through the online communities I'm a member of	1	50%	37%
Use resources recommended by my school district	0	0%	53%
Use Twitter to ask others about the resources they are using	1	50%	9%
This is not part of my current job responsibilities	0	0%	15%
Other	0	0%	3%

10 **Which of these factors would you consider most important when recommending digital content to teachers? (check all that apply)**

Response	# of Responses	% of Responses	National %
Accuracy of the content	2	100%	84%
Alignment to curriculum and standards (district, state, national or province)	1	50%	81%
Cost	1	50%	75%
Credibility of the organization publishing the materials	2	100%	70%
Credibility of the person or organization that referred the resource to me	0	0%	31%
Digital content can be used for basic skills development in a specific subject area	0	0%	39%
Digital content can be used to develop students' higher order thinking skills	1	50%	52%
Digital content is created by practicing teachers	0	0%	17%

Digital content is highly engaging and interactive	1	50%	57%
Ease of use for teacher and student	2	100%	84%
Evidence of demonstrated student achievement as a result of using the materials	1	50%	42%
Flexibility of the digital content to be used in a variety of instructional settings (in class, afterschool, independent study)	0	0%	43%
Students have the ability to use the digital content at school or home	1	50%	50%
Teacher evaluation of digital content	0	0%	28%
Teachers can use the digital content in a variety of ways (such as whole class instruction, group work, individual projects)	1	50%	49%
The resources can be easily integrated into our digital content library or learning management system	0	0%	27%
Other	0	0%	2%

11 **Besides time, what top barriers do you face when helping teachers integrate digital content into their lessons?**

Response	# of Responses	% of Responses	National %
Digital content is not organized in the appropriate scope and sequence	0	0%	17%
Digital content is not provided as part of our textbooks	1	50%	13%
I am unable to locate appropriate digital content aligned to our curriculum or state standards	0	0%	11%
I am unsure about copyright issues	0	0%	10%
I don't know how to evaluate the quality of digital content	0	0%	6%
Internet bandwidth is	0	0%	24%

insufficient to support digital content use			
Lack of computer access at school (or district)	0	0%	29%
Lack of funding to purchase digital content	2	100%	54%
Locating appropriate types of digital content for specific instructional strategies	2	100%	19%
Reliable, consistent access to digital content	1	50%	23%
School filters and firewalls	2	100%	49%
Students do not have access to computers or the Internet outside of school	0	0%	32%
Teachers are not comfortable incorporating digital content into their lessons	1	50%	41%
Teachers are not interested in incorporating digital content into their lessons	1	50%	23%
Using digital content to create meaningful learning experiences	0	0%	13%
Other	0	0%	10%

12 **Which of the following professional development experiences or resources would be most effective in helping teachers better use digital content in their classroom?**

Response	# of Responses	% of Responses	National %
Access to a collection of vetted, grade level, content specific resources	1	50%	62%
Blogs, wikis and chat rooms where teachers can share success stories, struggles and challenges	1	50%	24%
Collection of relevant podcasts	1	50%	21%
Downloadable whitepapers or reports that a teacher can review on their own time	0	0%	12%
Facebook-type environment for sharing best practices and ideas	2	100%	23%
Face-to-face professional	1	50%	57%

development			
Mentoring by an instructional coach on site	1	50%	48%
Online course	0	0%	21%
Online mentoring by a content specific expert	0	0%	15%
Participation in a professional learning community at his/her school	1	50%	45%
Participation in an online community of practice with like-minded teachers	2	100%	27%
Series of webinars about specific kinds of digital content	1	50%	26%
Support from a library media specialist who can help with digital content identification and usage	2	100%	46%
Video clips of teachers demonstrating use of digital content in their content area	0	0%	36%
Other	0	0%	4%

13 **There is a lot of discussion about the value of online text versus printed text. Thinking about the students and teachers in your school or district, which of these statements are true for you?**

Response	# of Responses	% of Responses	National %
Students have better comprehension and retention after reading printed text	0	0%	22%
Students are more likely to look up words/concepts that they are not familiar with when reading an online text	2	100%	37%
I worry that students will get easily distracted when reading online text	1	50%	33%
I think that reading online better suits how students want to learn	0	0%	36%
It is easier for students to take notes when reading a printed text	1	50%	26%
I think you need to learn	1	50%	41%

different skills to effectively comprehend information from an online article			
Teachers are reluctant to assign online reading because some students don't have access to the Internet outside of school	0	0%	61%
I regularly recommend online articles for students to read	0	0%	16%
When I am preparing to work with a teacher, I am more likely to print supporting materials than just rely upon the online versions	1	50%	28%
I read longer when I am reading a printed book or article than an online text	2	100%	41%
Too much online reading creates eyestrain for me	1	50%	32%
I rely more on printed text in my professional tasks than online text	1	50%	20%
My personal preference is to read online text rather than printed text	0	0%	16%

14 **In the past year, which of these things have you done on your own (not district directed or part of a formalized professional development class) to improve your leadership capabilities or professional skills? (check all that apply)**

Response	# of Responses	% of Responses	National %
Attended a face to face conference	2	100%	52%
Created a video or podcast to share with others	0	0%	28%
Found a mentor online	0	0%	6%
Found experts online who could answer my questions	1	50%	39%
Found information on the Internet	1	50%	89%
Listened to podcasts or watched videos about a topic that interested me	1	50%	65%
Participated in a webinar or	2	100%	49%

online conference			
Posted to a blog or wiki	1	50%	39%
Sought help from others through my social networking site	1	50%	32%
Started a wiki or blog to share my ideas and connect me with others	0	0%	16%
Supported teachers (or other colleagues) online	0	0%	38%
Took a self-paced tutorial on a subject	1	50%	32%
Took an online course	2	100%	28%
Took online assessments to test my own knowledge on a subject	0	0%	19%
Took part in an online game or simulation	0	0%	26%
Used a mobile application to learn about a subject that interested me	0	0%	31%
Used mobile applications to help me with my self-organization	0	0%	30%
Used Twitter to communicate or to follow others	1	50%	20%
None of the above	0	0%	4%
Other	0	0%	2%

15 **What is your involvement/interest in online or blended learning environments?**

Response	# of Responses	% of Responses	National %
I have taught an online class where the instruction and content was delivered primarily over the Internet	0	0%	4%
I have taken this kind of an online class for my own professional development	2	100%	33%
I would be interested in teaching an online class	0	0%	8%
I have taught a blended online class where students learned part of the time in a traditional classroom and part of the time	0	0%	3%

through online delivery w			
I have taken a this kind of a blended online class for my own professional development	0	0%	16%
I would be interested in teaching in a blended online class environment	0	0%	10%
No involvement or interest	0	0%	20%
Other	0	0%	5%

16 **How much do you agree with this statement: My school/district is doing a good job of using technology to enhance student achievement.**

Response	# of Responses	% of Responses	National %
Strongly agree	0	0%	19%
Agree	1	50%	61%
Disagree	1	50%	13%
Strongly disagree	0	0%	4%
No opinion	0	0%	2%
I don't know	0	0%	2%

17 **Are you . . .**

Response	# of Responses	% of Responses	National %
Female	1	100%	91%
Male	0	0%	9%

18 **Which of these degrees or certifications do you currently hold?**

Response	# of Responses	% of Responses	National %
Associate degree	0	0%	10%
Bachelor degree	0	0%	51%
Masters degree in Education	0	0%	19%
Masters degree in Education (with specialization in library media)	0	0%	11%
Masters degree in Educational/Instructional Technology	0	0%	10%
Masters degree in Learning Technologies	0	0%	0%
Masters degree in Library	2	100%	35%

Science			
Masters degree in a specialty other than Education	0	0%	5%
Librarian Certification	0	0%	10%
Librarian Media Specialist Certification	1	50%	30%
National Board Certification	0	0%	4%
Teaching Credential	0	0%	18%
Doctorate (PhD, EdD)	0	0%	1%
Other	0	0%	14%

19 **At the end of this school year, how many years of experience will you have as a librarian or media specialist?**

Response	# of Responses	% of Responses	National %
1-3	0	0%	19%
4-10	0	0%	35%
11-15	0	0%	19%
16+	2	100%	27%

20 **What is your race or cultural identity?**

Response	# of Responses	% of Responses	National %
American Indian/Alaskan Native	0	0%	0%
Aboriginal (First Nations, Metis, Inuit)	0	0%	0%
Asian	0	0%	1%
Non-aboriginal	0	0%	0%
Decline to state	0	0%	0%
Black/African-American	0	0%	4%
Caucasian/White (non-Hispanic)	2	100%	78%
Hispanic/Latino	0	0%	4%
Native Hawaiian/Other Pacific Islander	0	0%	0%
Decline to state	0	0%	6%
Other	0	0%	1%

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Blackboard K-12 DreamBox Learning hp k12 schoolwires come together SMART Technologies Wireless Reach

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2011 Speak Up Survey

Speak Up 2011

Teacher Survey

District: CHILTON SCHOOL DISTRICT

Results based on 26 survey(s).
Note: Survey responses are based upon the number of individuals that responded to the specific question.

1 What is your current job responsibility?

Response	# of Responses	% of Responses	National %
Teacher	21	81%	78%
Special education educator	2	8%	9%
Librarian or media specialist	0	0%	0%
School technology coordinator	0	0%	1%
Academic or guidance counselor	0	0%	2%
Curriculum specialist	0	0%	1%
Paraprofessional, instructional aide or paraeducator	1	4%	4%
Coach or Mentor	0	0%	1%
Other	2	8%	4%

2 What grade(s) do you currently teach?

Response	# of Responses	% of Responses	National %
pre-K	0	0%	2%

K-2	6	23%	19%
3-5	8	31%	21%
6-8	6	23%	21%
9-12	5	19%	27%
Ungraded	0	0%	2%
All grades	1	4%	8%

3 **What subject(s) do you currently teach primarily? (Select one)**

Response	# of Responses	% of Responses	National %
General Elementary (all subjects)	12	46%	32%
Business	0	0%	1%
Career Technical Education (includes vocational education, ROTC)	0	0%	2%
Computer Science	0	0%	0%
English	3	12%	9%
English as a second language	0	0%	1%
Foreign language	0	0%	2%
Health	1	4%	1%
Math	4	15%	10%
Physical education	0	0%	3%
Science	0	0%	7%
Social Studies or History	1	4%	6%
Special education	2	8%	8%
Technology (includes computer lab, information technology, media arts)	0	0%	3%
Visual and performing arts	1	4%	4%
Yearbook or Journalism	0	0%	0%
Other	2	8%	10%

4 **Thinking about your peers, do you consider yourself..**

Response	# of Responses	% of Responses	National %
An advanced tech user – more expert than most of my peers	6	23%	29%
An average tech user – about the same as my peers	19	73%	62%
A beginning tech user – less developed than my peers	1	4%	9%

5 **What types of electronic devices do you have access to for your own use? (check all that apply)**

Response	# of Responses	% of Responses	National %
Cell phone (without Internet access)	18	69%	49%
Smartphone (with Internet access such as: Blackberry, Droid, iPhone)	8	31%	54%
Computer provided to me by my school	17	65%	81%
My own personal laptop or other computer	23	88%	87%
Tablet Computer (such as iPad)	4	15%	26%
Digital reader (such as: Kindle, Nook)	6	23%	24%
Music or video device (such as: MP3 player, iPod, or iPod Touch)	18	69%	66%
Handheld game (such as: GameBoy, Nintendo DS)	5	19%	21%
Video Gaming System (xBox, Playstation, Wii)	12	46%	44%
Other	0	0%	4%

6 **Which of these activities do you regularly do using technology for professional tasks? (check all that apply)**

Response	# of Responses	% of Responses	National %
Communicate with peers or parents using email, IM or text messaging	23	96%	96%
Communicate with students using email, IM or text messaging	4	17%	35%
Conduct Internet research	22	92%	90%
Create and upload videos, music or pictures	14	58%	65%
Create multi-media presentations	7	29%	54%
Create or listen to podcasts	2	8%	25%
Learn how to do something from an online video	15	63%	59%

Manage electronic portfolios for students	1	4%	15%
Participate in professional online communities	3	13%	38%
Participate in video conferences or webinars	0	0%	28%
Read or post blog or wiki entries	6	25%	34%
Read online texts such as from newspapers, magazines, digital archives, digital libraries	18	75%	70%
Take an online class	8	33%	38%
Update my social networking profile (Facebook, LinkedIn)	9	38%	45%
Upload class information (such as: grades, homework assignments, teachers notes or presentations, podcasts, turn in assignments)	14	58%	70%
Use desktop widgets	1	4%	12%
Use Twitter to communicate or to follow others	0	0%	8%
Other	0	0%	3%



How do you use technology to facilitate student learning? (check all that apply)

Response	# of Responses	% of Responses	National %
Conduct investigations	9	38%	47%
Create cues, questions or advanced organizers	2	8%	41%
Create graphic organizers for comparing, classifying, creating metaphors and analogies	10	42%	52%
Create physical models or use pictures to represent knowledge	8	33%	41%
Facilitate group collaboration and structure	4	17%	32%
Homework and practice	12	50%	59%
Note taking and synthesis of information	3	13%	36%
Provide feedback to students	2	8%	37%
Set student objectives	3	13%	34%
Share exemplary student work	3	13%	28%

in classroom, school or with parents			
Students create movies or animation projects	2	8%	19%
Track the relationship between effort and achievement	0	0%	15%
None of the above	4	17%	8%

8 **How important is the effective implementation of instructional technology to your students' success?**

Response	# of Responses	% of Responses	National %
Extremely Important	5	21%	36%
Important	13	54%	43%
Somewhat Important	3	13%	17%
Not Important	1	4%	3%
No Opinion	2	8%	1%

9 **Many schools are exploring how to leverage mobile devices such as smartphones and tablet computers (such as iPads) to improve student achievement. What do you think would be the primary benefits of incorporating such devices into instruction? (check all that apply)**

Response	# of Responses	% of Responses	National %
Access to online textbooks	15	63%	68%
Helps teachers improve their technology skills	12	50%	55%
Improves teacher-parent-student communications	11	46%	55%
Increases student engagement in school and learning	19	79%	79%
Increases teacher productivity	8	33%	44%
Provides a way for instruction to be personalized for each student	12	50%	61%
Provides a way for me to create a learning centered environment	10	42%	48%
Provides a way for students to review classroom material afterschool	13	54%	58%
Provides opportunities for informal remediation	11	46%	51%
Students develop collaboration and teamwork skills	7	29%	40%

Students develop critical thinking and problem solving skills	9	38%	50%
Students develop stronger communications skills	4	17%	39%
These devices help to extend learning beyond the school day	15	63%	58%
I don't think these devices will positively impact learning	1	4%	4%
No significant benefit	2	8%	3%
Other	0	0%	2%



What is your biggest concern about students using mobile devices in your classroom? (check all that apply)

Response	# of Responses	% of Responses	National %
I am concerned students will cheat on tests	7	29%	35%
I am concerned that students will be distracted doing other things such as texting, playing games, research	17	71%	75%
I am worried that I might lose control of the class	1	4%	12%
I don't have curriculum to support their use	11	46%	26%
I don't know how to effectively integrate mobile devices into my instruction	10	42%	27%
I don't know which features I could use for instruction	8	33%	22%
I don’t see the value of using mobile devices within instruction	0	0%	6%
Not all of my students have mobile devices	17	71%	66%
Not appropriate for the ages of my students	8	33%	20%
Parents will not support the use of mobile devices	3	13%	9%
Teaching my students how to use mobile devices responsibly	6	25%	31%
Our school does not allow students to use mobile devices	2	8%	26%

in class			
Other	3	13%	5%

11 **What is your involvement/interest in online or blended learning environments?**

Response	# of Responses	% of Responses	National %
I have taught an online class where the instruction and content was delivered primarily over the Internet	0	0%	6%
I have taken this kind of an online class for my own professional development	11	50%	52%
I would be interested in teaching an online class	4	18%	21%
I have taught a blended online class where students learned part of the time in a traditional classroom and part of the time through online delivery w	3	14%	5%
I have taken this kind of blended online class environment	6	27%	18%
I would be interested in teaching in a blended online class environment	3	14%	20%
No involvement or interest	7	32%	31%
Other	1	5%	3%

12 **What are your preferred methods for professional development?**

Response	# of Responses	% of Responses	National %
Conference workshops or sessions led by experts in the field	19	86%	76%
I find my own training resources when i need them	5	23%	23%
In-school mentoring program	8	36%	26%
Online course- where instruction and content is delivered online	9	41%	30%
Online course- blended format with some instruction online	9	41%	20%

and some face-to-face			
Participating in a professional learning community or community of practice	7	32%	36%
Peer-to-peer or school study teams	5	23%	35%
Podcasts or webcasts	1	5%	15%
School or district provided trainings	12	55%	50%
Summer institutes (sponsored by my local university/college, museums, professional associations etc)	5	23%	31%
University or college course	9	41%	28%
Workshops from the County Office of Education or educational services offices	3	14%	21%
Workshops provided by textbook publishers, vendors or technology providers	4	18%	16%
None of the above	1	5%	1%
Other	1	5%	1%

13 **What would be the benefits of taking an online professional development course?**

Response	# of Responses	% of Responses	National %
Ability to customize my learning to meet my needs	8	36%	44%
Fits my schedule	19	86%	79%
I am better organized	4	18%	15%
I am more accountable for my own learning	6	27%	26%
I am part of a professional learning community	7	32%	22%
I can review materials as I need them	14	64%	47%
I feel more connected with my profession	2	9%	10%
I have more opportunities to collaborate with my peers	2	9%	13%
Just-in-time -- when I need it	6	27%	20%
Less expensive than alternatives	7	32%	29%
Provides access to experts	1	5%	16%

Saves time	5	23%	37%
Supports my learning style	3	14%	19%
I have not participated in any online professional development	1	5%	13%
None of the above	2	9%	3%
Other	0	0%	1%

14 **How would you like your district to use technology to create a professional learning community or community of practice?**

Response	# of Responses	% of Responses	National %
Partner with universities to provide graduate level courses	13	59%	40%
Provide a centralized repository of teaching resources	7	32%	38%
Provide easy access to student data that I can use to inform my teaching	8	36%	39%
Provide online courses	10	45%	42%
Provide tools that enable me to collaborate with other teachers outside of my school	11	50%	42%
Provide tools that enable me to collaborate with teachers at my school	10	45%	43%
Share documents and note taking for collaborative professional work	5	23%	29%
Use blogs or wikis to share 'best-practice'	4	18%	21%
Use digital readers (such as Kindle) to share books on best practices	5	23%	24%
Use podcasts or webcasts to share teaching topics	2	9%	19%
Use webinars and video conferencing to connect me with experts in my field	8	36%	21%
Other	1	5%	2%

15 **In the past year, which of these things have you done on your own (not district directed or part of a formalized professional development class) to improve your teaching effectiveness?**

Response	# of Responses	% of	National %

	Responses		
Attend a face to face conference	10	45%	47%
Created my own video or podcast to help me share my knowledge with others	1	5%	7%
Found a mentor online	0	0%	3%
Found experts online who could answer my questions	3	14%	23%
Found information on the Internet to help me prepare/deliver a lesson	19	86%	70%
Listened to podcasts or watched videos about a topic I was interested in	4	18%	38%
Participated in a webinar or online conference	1	5%	18%
Posted to a blog or wiki	3	14%	18%
Provided online support to other teachers	1	5%	16%
Sought help from other teachers through my social networking site	5	23%	17%
Started a wiki or blog to share my ideas and connect me with others	1	5%	5%
Took a self-paced tutorial on a subject	3	14%	15%
Took an online course	4	18%	22%
Took online assessments to test my own knowledge on a subject	1	5%	13%
Took part in an online game or simulation	5	23%	17%
Used a mobile application to learn about a subject that interested me	7	32%	21%
Used a mobile application to help me with my self-organization	5	23%	17%
Used Twitter to communicate or to follow others	0	0%	7%
None of the above	1	5%	7%
Other	0	0%	1%

16 **What types of digital content are you currently using in your classroom?**

Response	# of Responses	% of Responses	National %
3D content	0	0%	4%
Animations	1	6%	21%
Electronic book subscriptions	4	22%	10%
Game-based environments	7	39%	24%
Intelligent adaptive software	2	11%	6%
Online curriculum	3	17%	29%
Online databases (such as census data, education statistics)	0	0%	15%
Online periodical, news or journal subscriptions	5	28%	16%
Online subscription service of digital resources	4	22%	11%
Online supplemental materials	5	28%	34%
Online textbooks	1	6%	24%
Podcasts or Video (such as: iTunes, YouTube, TeacherTube, SchoolTube etc.)	4	22%	32%
Real-time data (such as: population, weather, NASA, GOOGLE Earth, GIS etc)	3	17%	23%
Simulations	1	6%	10%
Software to help students develop skills (reading, writing, math, foreign language)	12	67%	34%
Teaching aids such as lesson plans, interventions, assessment software	7	39%	46%
Tutorials	1	6%	15%
Virtual field trips	1	6%	15%
Virtual labs	0	0%	6%
None of the above	2	11%	11%
Other	1	6%	3%

17 **Thinking about the use of game based software and applications for instructional purposes, what would be the primary reason you would be interested in using digital or online games with your students?**

Response	# of Responses	% of Responses	National %
Address the different learning	12	67%	66%

styles in my classroom			
As a student engagement and motivation tool	15	83%	77%
As a vehicle for introducing new concepts	4	22%	42%
Collect assessment data on student proficiency	3	17%	30%
Create a learning centric classroom	3	17%	22%
Create an experiential environment for trial and error type activities	3	17%	17%
Facilitate student collaborative projects	2	11%	21%
Increase the real world context of my curriculum	3	17%	30%
Provide a way for students to visualize difficult concepts	6	33%	44%
Provide opportunities for students to practice skills or knowledge	6	33%	50%
Reinforce understanding and skill knowledge	7	39%	51%
To differentiate instruction	5	28%	54%
I don't see the value of using games within my classroom	1	6%	4%
Other	0	0%	1%

18 **Which of the following professional development experiences or resources would be most effective in helping you better use digital content in your classroom? (check all that apply)**

Response	# of Responses	% of Responses	National %
Access to a collection of vetted, grade level, content specific resources	9	53%	56%
Blogs, wikis and chat rooms where teachers can share success stories, struggles and challenges	3	18%	18%
Collection of relevant podcasts	2	12%	23%
Downloadable whitepapers or reports that I can review on my own time	1	6%	16%

Facebook-type environment for sharing best practices and ideas	2	12%	19%
Face-to-face professional development	9	53%	38%
Mentoring by an instructional coach on site	6	35%	23%
Online course	4	24%	26%
Online mentoring by a content specific expert	0	0%	11%
Participation in a professional learning community at my school	7	41%	32%
Participation in an online community of practice with like-minded teachers	3	18%	20%
Series of webinars about specific kinds of digital content	4	24%	14%
Support from a library media specialist who can help with digital content identification and usage	2	12%	20%
Video clips of teachers demonstrating use of digital content in my content area	3	18%	33%
Other	1	6%	2%

19 **Which of these factors would you consider most important when evaluating the quality of digital content to use in your classroom? (check all that apply)**

Response	# of Responses	% of Responses	National %
Certified by education membership associations and organizations	4	24%	37%
Compiled on a list by our State Department of Education or Ministry of Education	4	24%	23%
Content is fee-based	1	6%	3%
Content is free	5	29%	53%
It is an "Open Education Resource"	0	0%	24%
Learn about it on a webinar or virtual conference	1	6%	9%
Learned about the resource through a demonstration at a	2	12%	21%

conference			
Materials are created by practicing teachers	7	41%	55%
Recommended on education blogs and websites	6	35%	22%
Referred by a colleague	9	53%	50%
Source is a content expert organization (such as: National Science Foundation, universities)	5	29%	29%
Source is an established media or content producer (such as: NBC, Discovery, PBS)	4	24%	26%
Source is an online curriculum company or organization	1	6%	11%
Student achievement with the materials	10	59%	38%
Teacher evaluation of the materials	9	53%	42%
Textbook publisher recommendations	1	6%	8%
Other	0	0%	2%



How much do you agree with this statement: My school is doing a good job of using technology to enhance student achievement.

Response	# of Responses	% of Responses	National %
Strongly agree	0	0%	20%
Agree	11	61%	58%
Disagree	2	11%	12%
Strongly disagree	1	6%	4%
No opinion	2	11%	4%
I don't know	2	11%	2%



There is a lot of discussion about the value of online text verses printed text. Thinking about your classroom and students, which of these statements are true for you? (check all that apply)

Response	# of Responses	% of Responses	National %
My students have better comprehension and retention after reading printed text	6	33%	29%
My students are more likely to look up words/concepts that	1	6%	25%

they are not familiar with when reading online text			
I worry that my students will get easily distracted when reading online text	3	17%	35%
I think that reading online better suits how my students want to learn	0	0%	22%
It is easier for my students to take notes when reading a printed text	4	22%	26%
I think you need to learn different skills to effectively comprehend information from an online article	3	17%	27%
I am reluctant to assign online reading because my students don't have access to the internet outside of school	9	50%	38%
I regularly assign online articles for my students to read	0	0%	6%
When I am preparing for a lesson, I am more likely to print supporting materials than just rely upon the online versions	7	39%	35%
I read longer when I am reading a printed book or article than an online text	7	39%	27%
Too much online reading creates eyestrain for me	10	56%	28%
I rely more on printed text in my classroom than online text	10	56%	47%
My personal preference is to read printed text rather than online text	11	61%	38%

22 **Which of these have been problems for students at your school? (check all that apply)**

Response	# of Responses	% of Responses	National %
Approached by strangers online	1	6%	6%
Cyberbullying	4	24%	32%
Personal information shared with others online	4	24%	23%

Seeing websites with inappropriate content	4	24%	32%
Sharing suggestive texts or photos (sexting)	3	18%	18%
Spending too much time online	4	24%	39%
Strangers asking to meet in person	1	6%	3%
Students' mobile devices have been stolen	2	12%	25%
Students using mobile devices to cheat in class	1	6%	17%
Students using others' ideas as their own (plagiarism)	7	41%	33%
None of the above	9	53%	29%
Other	0	0%	5%



Which of these social media tools and applications do you use for your personal interests?

Response	# of Responses	% of Responses	National %
Communicate with others through discussion boards, social networking sites, chat or online communities	10	53%	50%
Communicate with others through email, IM or text message	16	84%	88%
Contribute to a wiki	1	5%	8%
Create a list of resources I want to share or remember (such as: delicious, digg, diigo, reddit)	1	5%	13%
Create videos to post and share with others	3	16%	13%
Participate in online games or 3D virtual reality worlds (such as: Second Life)	2	11%	10%
Participate in an online community around a topic that I am interested in	1	5%	14%
Take an online class	8	42%	33%
Update my social networking profile (Facebook, LinkedIn)	11	58%	55%
Upload or download videos, podcasts or photos to/from the	8	42%	44%

Internet			
Use Twitter to communicate or to follow others	1	5%	10%
Use web tools that notify me about things I'm interested in (such as: news or magazine articles, changes to websites)	7	37%	28%
Write collaboratively with others (such as: GOOGLE docs, writeboard or letterpop)	2	11%	16%
Write or contribute to a blog (my own or someone else's)	1	5%	11%
None of the above	2	11%	4%
Other	0	0%	1%



How has your use of technology within instruction enhanced your students' academic success?

Response	# of Responses	% of Responses	National %
More students are participating in discussions or group activities	2	11%	25%
Students are applying their knowledge to practical problems	3	17%	26%
Students are creating models and testing their assumptions	0	0%	7%
Students are demonstrating higher levels of proficiency on standardized tests	1	6%	11%
Students are developing their creativity	1	6%	35%
Students are developing their problem-solving and critical thinking skills	3	17%	28%
Students are gaining a better understanding of the class material through "trial and error"	1	6%	20%
Students are more deeply exploring their ideas	0	0%	17%
Students are more motivated to learn	9	50%	50%
Students are spending more time on drill and practice	3	17%	18%

Students are taking ownership for their learning	3	17%	22%
Students are working together more often	3	17%	22%
Students have a better understanding of abstract concepts	0	0%	13%
Students learn that failure is an opportunity to learn	1	6%	11%
I don't know	7	39%	21%
Other	0	0%	3%

25 **How has the use of technology improved your effectiveness as a teacher?**

Response	# of Responses	% of Responses	National %
I am better organized	4	21%	47%
I am creating more interactive lessons	11	58%	51%
I am creating more relevant lessons	5	26%	38%
I am facilitating student centered learning	10	53%	37%
I am managing my class more effectively	3	16%	28%
I am more connected to my students	1	5%	23%
I am more productive	2	11%	33%
I encourage students to be more self-directed	6	32%	30%
I facilitate collaboration between students	2	11%	20%
I give my students more personalized attention	2	11%	17%
I have a better understanding of what my students are learning	2	11%	19%
I have time to differentiate instruction	4	21%	25%
I know when students are having problems with the content	1	5%	19%
I spend more time with individual students to help them understand the content	2	11%	15%

It's easier to assess how my students are doing	4	21%	22%
None of the above	4	21%	10%
Other	0	0%	2%



Imagine you are designing the ultimate school for 21st century learners. Which of these tools or strategies do you think holds the greatest potential for increasing student achievement and success? (check all that apply)

Response	# of Responses	% of Responses	National %
Ability for students to use their own mobile devices	5	28%	39%
Ability to access the Internet anywhere at school and in my classroom	11	61%	71%
Adaptive learning software which adjusts levels of difficulty and content to address student needs	10	56%	63%
Chat rooms to discuss topics with students while in class	1	6%	17%
Collaboration tools (such as: blogs, social networking sites, wikis, bookmarking)	4	22%	28%
Computer for every student to use at school (such as: laptop, netbook)	11	61%	71%
Digital content (such as: databases, electronic books, animations, videos etc)	7	39%	45%
Digital media creation tools (such as: video, audio)	4	22%	42%
Digital reader (such as: Kindle, Nook)	6	33%	40%
Electronic portfolios for students	2	11%	38%
Games or virtual simulations	7	39%	35%
Handheld student response systems	5	28%	42%
High speed color printers	4	22%	35%
Instant messaging and text messaging	1	6%	15%
Interactive whiteboards (such as: Smartboard, Polyvision)	8	44%	59%

Learning management systems (such as: Blackboard, Moodle, Angel)	4	22%	26%
Mobile devices such as smartphone or MP3 players	1	6%	18%
Online classes	4	22%	25%
Online textbooks	6	33%	48%
Online tutors	3	17%	36%
School portal or website	3	17%	31%
Simulations	3	17%	23%
Tablet computer (such as iPad)	9	50%	42%
Tools that help students organize their work (such as: communication, organize my assignments, take notes, organize my ideas)	8	44%	38%
Video conferences and webinars	1	6%	18%
Virtual or online whiteboard	3	17%	23%
Virtual reality games or environments	2	11%	14%
Other	1	6%	2%



Are you . . .

Response	# of Responses	% of Responses	National %
Female	16	84%	82%
Male	3	16%	18%



Highest level of educational attainment

Response	# of Responses	% of Responses	National %
Some College	0	0%	2%
Bachelor's degree	9	50%	39%
Early Childhood Development Certificate	2	11%	2%
Paraprofessional certificate	1	6%	1%
Masters degree in education	6	33%	44%
Masters degree other than education	2	11%	9%
Teaching certificate - elementary/multiple subject	6	33%	16%
Teaching certificate - single	1	6%	8%

subject			
Doctorate (PhD, EdD)	0	0%	1%
Other	1	6%	6%

29 At the end of this school year, how many years of teaching experience will you have?

Response	# of Responses	% of Responses	National %
1-3	2	11%	10%
4-10	8	42%	31%
11-15	5	26%	21%
16+	4	21%	38%

30 What is your race or cultural identity?

Response	# of Responses	% of Responses	National %
American Indian/Alaskan Native	0	0%	1%
Aboriginal (First Nations, Metis, Inuit)	0	0%	0%
Non-aboriginal	0	0%	0%
Asian	0	0%	1%
Black/African-American	0	0%	4%
Decline to state	0	0%	0%
Caucasian/White (non-Hispanic)	15	75%	61%
Hispanic/Latino	0	0%	4%
Native Hawaiian/Other Pacific Islander	0	0%	0%
Decline to state	3	15%	5%
Other	0	0%	1%

31 Are you a member of ISTE (the International Society for Technology in Education) or one of the ISTE state affiliates?

Response	# of Responses	% of Responses	National %
Yes	0	0%	3%
No	17	89%	86%
I am not familiar with this organization, but would like to be	1	5%	7%
I don't know if I am a member	0	0%	2%
None of the above	1	5%	2%

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What is your current job responsibility?

Response	*Position*
CHILTON HIGH	
teacher assisant	Other
CHILTON MIDDLE	
School Counselor	Other

What subject(s) do you currently teach primarily? (Select one)

Response	*Position*
CHILTON MIDDLE	
Guidance	
functional academics	Special education educator

What types of digital content are you currently using in your classroom?

Response	*Position*
CHILTON ELEMENTARY	
ipod touches	Teacher

Highest level of educational attainment

Response	*Position*
CHILTON ELEMENTARY	
Reading 316 Certification	Teacher

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What is your biggest concern about students using mobile devices in your classroom? (check all that apply)

Response	*Position*
CHILTON ELEMENTARY	
working with peers; social skills	
CHILTON MIDDLE	
Need lots of TIME to research how to most effectively implement their use	Teacher
I'm concerned about the time it takes to preview all that is out there.	Teacher

What are your preferred methods for professional development?

Response	*Position*
CHILTON MIDDLE	
Again, mostly need TIME to learn about what's available/possible	

Technology has transformed the way students approach school today, and the way they interact with their friends and their parents. But how has technology changed your professional and school interactions? How is your relationship with your students different today because of technology? What about your interactions with your students' parents? And how about your relationships with your teaching colleagues – both at your school or maybe the ones you are tap into only virtually? Tell us about the qualities of these new tech-enabled interactions and how you think technology and social media tools could enhance your effectiveness and productivity as a teacher today (or not).

Response	*Position*
CHILTON ELEMENTARY	
Learning today in my classroom is collaborative and comfortable. Technology allows students to work together or individually based on their own needs. Social media tools and technology will allow students to become more in charge of their own learning with teachers taking on more of a facilitator approach.	Teacher
With busy schedules all around, it is easier to communicate with other teachers/colleagues through e-mail to address student concerns/progress. It allows the teachers the ability to respond when they have the appropriate amount of time to think about a student in question and respond to questions/comments.	Special education educator

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Technology has transformed the way students approach school today, and the way they interact with their friends and their parents. But how has technology changed your professional and school interactions? How is your relationship with your students different today because of technology? What about your interactions with your students' parents? And how about your relationships with your teaching colleagues – both at your school or maybe the ones you are tap into only virtually? Tell us about the qualities of these new tech-enabled interactions and how you think technology and social media tools could enhance your effectiveness and productivity as a teacher today (or not).

Response	*Position*

CHILTON ELEMENTARY

Do not have much availability to technology.

CHILTON MIDDLE

do not rely on report cards to communicate with P's. Info is realtime and up to date.

Technology has helped make parent-teacher communication easier and more convenient. I can imagine posting online assignments and tutorials for students to work on at home, but that would only work well if every student had internet access at home.

There seems to be less face-to-face interaction between all people. It helps to assign two people to one computer. Or give group projects to keep verbal skills strong. "Moderation in all things....." The Roman writer Petronius.

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2011 Speak Up Survey

Speak Up 2011

District Administrator

District: CHILTON SCHOOL DISTRICT

Results based on 1 survey(s).
Note: Survey responses are based upon the number of individuals that responded to the specific question.

1 What is your current job responsibility?

Response	# of Responses	% of Responses	National %
Superintendent (District Executive, CEO)	1	100%	10%
Assistant/Deputy Superintendent	0	0%	6%
CTO/CIO/Technology Supervisor	0	0%	16%
Curriculum & Instruction Supervisor	0	0%	14%
Instructional Technology Specialists	0	0%	7%
Technology Support Staff (such as: network, hardware, software)	0	0%	6%
Title I Director/Coordinator	0	0%	2%
Administrative or Support Staff	0	0%	18%
School Board Member	0	0%	1%
Other	0	0%	21%

2 What types of electronic devices do you have access to for your own use? (check all that apply)

Response	# of Responses	% of Responses	National %
Cell phone (without Internet access)	0	0%	31%
Smartphone with Internet access such as: Blackberry, Droid or iPhone	1	100%	70%
Computer provided to me by my district	1	100%	93%
My own personal laptop or other computer	1	100%	73%
Tablet Computer (such as iPad)	1	100%	55%
Digital reader (such as: Kindle, Sony Digital Reader)	1	100%	23%
Music or video device (such as: MP3 player, iPod or iPod Touch)	0	0%	56%
Hand-held game (such as: GameBoy, Nintendo DS)	0	0%	13%
Video Gaming System (such as: xBox, Playstation, Wii)	0	0%	31%
Other	0	0%	4%

3 **Thinking about your peers, do you consider yourself..**

Response	# of Responses	% of Responses	National %
An advanced tech user – more expert than most of my peers	0	0%	50%
An average tech user – about the same as my peers	1	100%	46%
A beginner tech user – less developed than my peers	0	0%	4%

4 **As a district leader you are faced with many challenges. Which of these challenges qualify as your top challenges - the ones most likely to "wake you up" in the middle of the night?**

Response	# of Responses	% of Responses	National %
Achievement measured by standardized test scores	0	0%	32%
Adequate funding	1	100%	64%
Adequate school facilities	0	0%	17%
Adequate technology	0	0%	44%

Adherence to curriculum standards (e.g. state, national, provincial)	0	0%	20%
Closing the achievement gap	0	0%	35%
Communications with parents	0	0%	21%
District public image in the community	1	100%	26%
High school graduation rates	0	0%	15%
Incorporation of 21st century skill development into curriculum	0	0%	35%
Recruitment and retention of highly qualified teachers	1	100%	17%
School safety	1	100%	20%
Serving diverse student populations	0	0%	20%
Special education issues and legal compliance	0	0%	20%
Staff morale/motivation	1	100%	43%
Students' behavior/attendance issues	0	0%	18%
Students' health including substance abuse, teen pregnancy, family issues	1	100%	10%
Use of technology within instruction	0	0%	44%
Using data to assess student achievement	0	0%	33%
Using student data to evaluate teacher performance	0	0%	24%
Other	0	0%	6%

5 **There is an increased demand to improve student outcomes especially in terms of increasing college matriculation and career readiness. Which of the following do you believe has the greatest potential to enhance student achievement in your district?**

Response	# of Responses	% of Responses	National %
Aligning local curriculum to the national Common Core standards	1	100%	34%
Creating academies focused on career technical education and exploration	0	0%	24%

Developing an "individualized education plan" for every student	0	0%	28%
Developing enhanced leadership skills for our administrators	0	0%	33%
Engaging parents as co-teachers	0	0%	31%
Enhancing teacher effectiveness through professional development or professional learning communities	1	100%	59%
Improving pre-service teacher preparation programs	1	100%	22%
Increasing career exploration opportunities for students in science, technology, engineering and math	1	100%	33%
Increasing student access in Advanced Placement courses in high school	1	100%	20%
Increasing the length of the school day or year	0	0%	15%
Integrating 21st century skills into the curriculum	0	0%	55%
Leveraging technology more effectively such as through online learning, digital textbooks and/or mobile devices	1	100%	52%
Utilizing assessments for measuring 21st century competencies	0	0%	27%
Utilizing longitudinal data systems to better track student learning performance and college/career readiness.	0	0%	30%
Other	0	0%	4%

6 **How important is the effective implementation of instructional technology to your district's (or school's) core mission?**

Response	# of Responses	% of Responses	National %
Extremely Important	0	0%	53%
Important	1	100%	37%
Somewhat Important	0	0%	8%
Not Important	0	0%	1%

No Opinion	0	0%	0%

7 **Specific to the use of technology within instruction, besides funding which of these issues are the most challenging for you and your district right now?**

Response	# of Responses	% of Responses	National %
Assessment of students' technology skills	0	0%	19%
Availability of technology for students' use at school	1	100%	51%
Communication tools for connecting with parents	0	0%	17%
Creating a technology vision for our district	1	100%	24%
Determining appropriate applications for cloud computing	0	0%	19%
Developing acceptable use policies for students and teachers	0	0%	16%
Digital equity issues (student access to technology & Internet at home)	1	100%	50%
Evaluating emerging technologies for classroom use	0	0%	36%
Evaluating quality of digital content or online courses	0	0%	24%
Implementation of a learning management system	0	0%	13%
Incorporating students' mobile devices into instruction	1	100%	38%
Incorporating student owned mobile devices into our network	1	100%	28%
Internet capacity and bandwidth to accommodate multi-media and digital content	0	0%	32%
Preparing for online assessments	0	0%	23%
Providing data plans for mobile devices	0	0%	6%
Providing online courses for students	0	0%	20%
School or district filters or firewalls	0	0%	19%

Speed and accessibility of the school/district network	1	100%	23%
Staff professional development	1	100%	54%
Student safety online	1	100%	25%
Technology support	1	100%	36%
Using social media effectively	0	0%	23%
Other	0	0%	3%

8 **How does your district's overall budget for education technology initiatives and projects compare this year with your budget in the 2008/2009 school year?**

Response	# of Responses	% of Responses	National %
Significantly increased	0	0%	8%
Slightly increased	0	0%	11%
About the same	1	100%	21%
Slightly less	0	0%	15%
Significantly less	0	0%	25%
I don't know that information	0	0%	20%

9 **If your ed tech budget is less than desirable this year, how are you dealing with that situation?**

Response	# of Responses	% of Responses	National %
Applying for eRate funds	0	0%	39%
Asking parents for donations or to pay fees	0	0%	8%
Competing for new federal grant programs	0	0%	30%
Cutting back on district technology staff	0	0%	16%
Cutting back on the scope of projects	0	0%	24%
Maintaining the status quo with current infrastructure and projects	0	0%	34%
Putting projects on hold until the budget situation improves	0	0%	31%
Repurposing other budgeted line items (such as textbook funds for digital textbooks)	1	100%	22%
Seeking private and corporate foundation support	0	0%	18%
Tapping into new technology solutions to decrease district	1	100%	24%

costs or increase revenue			
Using IDEA funds to support technology investments as allowed	0	0%	16%
Using Title 1 funds to support technology investments as allowed	0	0%	25%
Not applicable to us	0	0%	13%
Other	0	0%	7%

10 Which if any of these technology solutions are you considering for your district to at least partially help your budget situation?

Response	# of Responses	% of Responses	National %
Building your own online courses	0	0%	24%
Cloud computing applications	0	0%	35%
Digital textbooks	1	100%	43%
Fee based online summer school	0	0%	11%
Free online digital resources (Open Education Resources)	0	0%	31%
Online classes	0	0%	30%
Online curriculum guides	0	0%	15%
Online teacher professional development	0	0%	37%
Parental online and phone based notification systems	0	0%	26%
Students using their own mobile device in class (BYOT)	1	100%	27%
Tablet computers (iPads) or netbooks instead of laptops	0	0%	39%
Using students to provide school based tech support	1	100%	11%
Using Twitter to send district wide messages	0	0%	9%
Virtual conferences and webinars	1	100%	29%
Virtual interactive white boards	0	0%	16%
We are not looking at any tech solutions in this way	0	0%	9%
Other	0	0%	6%

11 Increasingly administrators are being asked to justify their technology investments. Which of these outcomes have proven to be good justifications for

technology investments in your district?

Response	# of Responses	% of Responses	National %
Alignment with Common Core Standards	0	0%	38%
Better leveraging of current technology in our schools	0	0%	41%
Closed achievement gaps in the district	0	0%	30%
Complied with state or federal policy mandates	0	0%	20%
Created new revenue streams	0	0%	7%
Environmentally appropriate	1	100%	9%
Generated cost savings	1	100%	22%
Improved home to school communications	1	100%	40%
Improved public image of our district	1	100%	28%
Increased student achievement levels	1	100%	53%
Increased teacher productivity	0	0%	49%
Necessary to be competitive with other school choices	1	100%	31%
Reduced staffing	0	0%	6%
Repurposed other budget line items	0	0%	10%
School safety	1	100%	9%
Other	0	0%	5%



How do you use technology to assist you with professional tasks? (check all that apply)

Response	# of Responses	% of Responses	National %
Communicate with others with email, IM or text messaging	1	100%	97%
Conduct Internet research	1	100%	92%
Create and upload videos, music or pictures	0	0%	55%
Create multi-media presentations	0	0%	71%
Listen to podcasts, watch videos or view presentations	1	100%	75%
Participate in professional	0	0%	65%

online communities			
Participate in webinars or video conferences	1	100%	85%
Read or post blog or wiki entries	1	100%	43%
Read text-based resources (such as: electronic textbooks, newspapers, magazines, digital archives, digital libraries)	1	100%	71%
Share information with other administrators and staff via district portal	0	0%	61%
Take an online class	0	0%	40%
Update my profile on a social networking site (LinkedIn or Facebook)	0	0%	35%
Use desktop widgets	0	0%	20%
Use Twitter to communicate or follow others	0	0%	20%
None of the above	0	0%	0%

13 **Thinking about your professional use of technology, how much do you agree with this statement? I prefer to do the majority of my reading online rather than reading from a printed page of text.**

Response	# of Responses	% of Responses	National %
Strongly agree	0	0%	16%
Agree	0	0%	39%
Disagree	1	100%	27%
Strongly disagree	0	0%	8%
No opinion	0	0%	7%
Not sure	0	0%	3%

14 **Some districts are considering adopting a Bring Your Own Technology (BYOT) to School program which would enable students to use their own mobile devices within instruction. What is your current policy on the use of student owned mobile devices (smartphones, tablet computers, MP3 players) within class?**

Response	# of Responses	% of Responses	National %
We do not allow students to use their own mobile devices within class	0	0%	52%
Use of student owned devices is at the discretion of the building	1	100%	16%

administrator			
Use of student owned devices is at the discretion of the classroom teacher	1	100%	21%
We currently provide students with school owned mobile devices for use in class	0	0%	13%
We are currently evaluating a BYOT approach	1	100%	19%
We are piloting a BYOT program in one or more of our schools	1	100%	7%
We have adopted a BYOT approach but we are not providing any network access for student owned devices	0	0%	1%
We have adopted a BYOT approach but we are stipulating the type of device that can have access to our network	1	100%	2%
We have adopted a BYOT approach and we are accommodating any student owned device on our network	0	0%	7%
We are not interested at this time in a BYOT approach	0	0%	6%
Other	0	0%	6%

15 **Regardless of your current policy, what would be some potential advantages of allowing students to use their own mobile devices within instruction?**

Response	# of Responses	% of Responses	National %
Ability to extend learning beyond the school day	1	100%	76%
Catalyst for changing teacher practice in the classroom	1	100%	57%
Demonstrate responsiveness to student needs	1	100%	55%
Enhance teacher-student connectivity	1	100%	56%
Increased Internet access for the students	1	100%	50%
Increased personal ownership of the learning process by the	1	100%	61%

students			
Increased student engagement in learning	1	100%	70%
Provides 1:1 computing access without traditional district costs	1	100%	58%
Opportunity to teach students digital citizenship skills	1	100%	48%
Provide opportunities for informal remediation	0	0%	35%
Repurpose part of tech budget for other items	0	0%	30%
Responsibility for safety would be with the parents	0	0%	16%
I don't see any benefits to the use of student owned mobile devices within instruction	0	0%	5%
Other	0	0%	3%

16 **What are the most significant potential challenges associated with implementing a BYOT approach?**

Response	# of Responses	% of Responses	National %
Ability to provide network connectivity	1	100%	49%
Concerns over student Internet safety and district liability	1	100%	77%
Concerns over students cheating using these devices	0	0%	50%
Costs to provide network access for the devices	1	100%	37%
Dealing with a mix of different devices and apps	1	100%	65%
Determining responsibility for device theft	0	0%	46%
Digital equity accommodations for students that don't have a device	1	100%	71%
Digital equity accommodations for students that have a device with low functionality	0	0%	52%
Gaining parental support and willingness to purchase devices	1	100%	41%
Implementing effective responsible use policies	1	100%	39%

Keeping up with the ever changing mix of products	0	0%	48%
Managing student and parent expectations for after hours access to teachers	0	0%	27%
Network security issues	1	100%	55%
Potential for increased cyber-bullying	1	100%	40%
Training teachers on how to effectively use the devices within instruction	1	100%	59%
Other	0	0%	2%

17 **More and more districts are implementing online classes where instruction and content is delivered primarily over the Internet. Who are your primary audiences (if any) for online classes in your district?**

Response	# of Responses	% of Responses	National %
Administrators	0	0%	24%
At-risk students in traditional school settings	0	0%	30%
Classified staff	0	0%	8%
Classroom teachers/Paraprofessionals	0	0%	29%
Librarians/Media Specialists	0	0%	12%
Students	0	0%	43%
Students in continuation or alternative high schools	0	0%	36%
Students schooled at home	0	0%	20%
We are not offering online classes at this time	1	100%	22%
Other	0	0%	5%

18 **Some schools and districts now require students to take at least one online class as part of their education. Do you agree or disagree with this policy?**

Response	# of Responses	% of Responses	National %
Strongly agree	1	100%	30%
Somewhat agree	0	0%	39%
Somewhat disagree	0	0%	14%
Strongly disagree	0	0%	5%
No opinion	0	0%	13%

19 **Which of these factors would you consider most important when evaluating the**

quality of online courses to use in your district? (check all that apply)

Response	# of Responses	% of Responses	National %
Aligned to content standards (state, national, provincial)	1	100%	83%
Aligned to iNACOL National Standards of Quality for Online Courses	1	100%	26%
Cost	1	100%	58%
Developed by an organization with expertise in the field	1	100%	37%
Developed by classroom teacher(s) or curriculum specialists	0	0%	46%
Developed by instructional designers	0	0%	17%
Developed by online curriculum company	0	0%	5%
Ease of use for students and teachers	1	100%	72%
Includes embedded assessments	1	100%	47%
Integrates digital content	1	100%	34%
Online course used by schools/districts similar to my own	0	0%	17%
Online course used by virtual school	0	0%	9%
Recommended by my colleagues	0	0%	17%
Recommended by professional organizations, State Department of Education or Ministry of Education	0	0%	27%
Student achievement results after taking the course	1	100%	66%
Student completion rates for the course	1	100%	47%
Students can use a variety of hardware/software platforms	1	100%	31%
Other	0	0%	2%

20 **What has been your personal involvement/interest with online or blended learning environments?**

Response	# of Responses	% of Responses	National %
I have taken an online class for my own professional development where the instruction and content was delivered primarily over the Internet	0	0%	65%
I would be interested in taking more online professional development courses	0	0%	34%
I have taught an online class	0	0%	14%
I have taken a blended online class for my own professional development where part of the instruction was face-to-face and part of it was online	1	100%	30%
I would be interested in taking more blended online professional development courses	0	0%	20%
I have taught a blended online class	0	0%	9%
No involvement to date	0	0%	17%
No interest at this time	0	0%	3%

21 **To support the Common Core Standards, the US federal government has funded the development of next generation assessments for deployment in the 2014-2015 school year. These assessments will be online. What are your school's most significant challenges to implementing online assessments with all of your students?**

Response	# of Responses	% of Responses	National %
Ability to provide adaptive or assistive technology for some students	0	0%	35%
Costs to modernize infrastructure	0	0%	43%
Creating safeguards for the privacy of the data records	0	0%	21%
Determining technology infrastructure needs	0	0%	34%
How to prevent cheating	0	0%	21%
Lack of backup alternative in	0	0%	27%

case of system failure			
Limitations on testing windows	0	0%	26%
Limited facility space to accommodate a testing lab	0	0%	36%
Need to increase technology support staff	0	0%	37%
Need to train teachers and students	0	0%	50%
Not enough bandwidth	0	0%	30%
Not enough computers	0	0%	50%
Not enough time to do this by 2014-15	0	0%	14%
Parents' uneasiness with online testing	0	0%	6%
Students' unpreparedness due to digital equity issues	0	0%	16%
Other	1	100%	8%

22 **What could be the most significant potential benefits of online assessments?**

Response	# of Responses	% of Responses	National %
Cost savings	0	0%	51%
Creates rationale for improving technology infrastructure	0	0%	29%
Decrease in staffing	0	0%	6%
Environmental sensitivity	0	0%	13%
Greater flexibility in testing windows	1	100%	30%
Increased parental engagement in student achievement results	0	0%	15%
Increased security of test content	1	100%	18%
Increased student motivation or engagement	0	0%	43%
Prepares students for college and career assessments	1	100%	44%
Reduced handling of secure paper materials	1	100%	56%
Reduction in test administration errors	0	0%	46%
Reduction in time to report testing results	1	100%	65%
Reduction is amount of printed	1	100%	58%

materials			
Other	0	0%	3%

23 **What if you had to implement the new online assessments for all of your students this year? What percentage of your students including those that require special technology or assistance could you accommodate with online tests right now? (approximate your percentage assuming your same testing window)**

Response	# of Responses	% of Responses	National %
Less than 10%	0	0%	4%
20%	0	0%	8%
33%	0	0%	9%
50%	0	0%	12%
66%	0	0%	7%
75%	0	0%	8%
More than 90%	1	100%	26%
I have no idea	0	0%	23%
Other	0	0%	3%

24 **An emerging trend in educational software is called intelligent adaptive learning. This kind of software dynamically adapts the learning path for each student based upon demonstrated comprehension and sophistication of strategy, and provides real time reporting to teachers and administrators. Which of the following aspects of this new trend would be most important within your district? (select one)**

Response	# of Responses	% of Responses	National %
Engages students in self-directed independent learning	0	0%	15%
Increases the effectiveness of our teachers through the use of technology	0	0%	8%
Provides a way to differentiate instruction with larger class sizes	0	0%	18%
Provides instruction at the "just right" level for each individual student	1	100%	31%
Real time reporting on student comprehension by concept back to the teacher	0	0%	13%
Real time reporting on student progress against standards for	0	0%	11%

administrators			
This does not sound like something that would be valuable for our district	0	0%	2%
Other	0	0%	2%

25 **Which of these factors would you consider most important when evaluating the quality of digital content to use in your district?**

Response	# of Responses	% of Responses	National %
Certified by education membership associations and organizations	0	0%	32%
Compiled on a list by our State Department of Education or Ministry of Education	1	100%	26%
Content is fee-based	0	0%	4%
Content is free	0	0%	27%
It is an "Open Education Resource"	0	0%	21%
Learn about it on a webinar or virtual conference	0	0%	8%
Materials are created by practicing teachers	0	0%	33%
Recommended on education blogs and websites	0	0%	15%
Referred by a colleague	0	0%	16%
See a demonstration at a face to face conference	1	100%	28%
Source is a professional digital resource company or organization	0	0%	12%
Sources are established media/content producers (such as: NBC, Discovery, PBS)	0	0%	14%
Source is a content expert organization (such as: National Science Foundation, universities)	0	0%	32%
Student achievement with the materials	1	100%	57%
Teacher evaluation of the materials	1	100%	49%
Textbook publisher	0	0%	4%

recommendations			
Other	0	0%	3%

26 Which of these social media tools or applications do you use for your personal interests?

Response	# of Responses	% of Responses	National %
Communicate with others through discussion boards, social networking sites or chat	1	100%	60%
Communicate with others through email, IM or text messaging	1	100%	97%
Contribute to a wiki (such as Wikipedia)	0	0%	19%
Create a list of resources I want to remember or share (such as delicious, digg, diigo, reddit)	0	0%	22%
Create videos to post and share with others	0	0%	24%
Participate in online games or 3D virtual reality environments (such as Second Life)	0	0%	13%
Participate in an online community around a topic that I am interested in	0	0%	35%
Take an online class	0	0%	48%
Update my social networking profile (Facebook, LinkedIn)	1	100%	60%
Upload or download videos, podcasts or photos to/from the Internet	0	0%	54%
Use Twitter to communicate or follow others	0	0%	24%
Use web tools that notify me about things I'm interested in (such as: news or magazine articles, changes to websites)	1	100%	51%
Write collaboratively with others (such as: GOOGLE docs, writeboard or letterpop)	0	0%	36%
Write or contribute to a blog (my own or someone else's)	0	0%	20%
None of the above	0	0%	1%

Other	0	0%	0%

27 **How much do you agree with this statement: Our district is doing a good job of using technology to enhance student achievement.**

Response	# of Responses	% of Responses	National %
Strongly agree	0	0%	14%
Agree	0	0%	62%
Disagree	1	100%	17%
Strongly disagree	0	0%	3%
No opinion	0	0%	2%
I don't know	0	0%	2%

28 **Imagine you are designing the ultimate school for 21st century learners. Which of these tools or strategies do you think holds the greatest potential for increasing student achievement and success? (check all that apply)**

Response	# of Responses	% of Responses	National %
Ability to access the Internet anywhere at school	1	100%	72%
Adaptive learning software which adjusts levels of difficulty and content to address student needs	1	100%	74%
Chat rooms to discuss topics with students while in class	0	0%	21%
Collaboration tools (such as: blogs, social networking sites, wikis, bookmarking, etc.)	0	0%	48%
Computer for every student to use at school (such as: laptop, netbook)	1	100%	73%
Digital content (such as: databases, animations, videos, etc.)	1	100%	50%
Digital media creation tools (such as: video, audio)	1	100%	47%
Digital readers (such as: Kindle, Nook)	1	100%	36%
Electronic portfolios for students	0	0%	53%
Games or virtual simulations	1	100%	22%
Handheld student response systems	0	0%	42%

High speed color printers	0	0%	16%
Instant messaging and text messaging tools	0	0%	19%
Interactive whiteboards (such as Smartboard, Polyvision)	0	0%	57%
Learning management systems (such as: Blackboard, Moodle, Angel)	1	100%	48%
Mobile devices such as smartphones and MP3 players	1	100%	27%
Online classes	1	100%	52%
Online textbooks	1	100%	62%
Online tutors	1	100%	44%
Providing students the ability to use their own mobile devices	1	100%	40%
School portal or website	0	0%	39%
Tablet computer (such as iPad)	1	100%	50%
Tools to help students and teachers organize their work (such as: communication, organize assignments, take notes)	1	100%	51%
Video conferences or webinars	1	100%	38%
Virtual or online whiteboard	0	0%	24%
Virtual reality games or environments	1	100%	12%
Other	0	0%	1%

29 **At the end of this school year, how many years of leadership/administrative experience will you have?**

Response	# of Responses	% of Responses	National %
1-3	0	0%	12%
4-10	0	0%	34%
11-15	1	100%	21%
16+	0	0%	33%

30 **What is your race or cultural identity?**

Response	# of Responses	% of Responses	National %
Aboriginal (First Nations, Metis, Inuit)	0	0%	0%
American Indian/Alaskan	0	0%	1%

Native			
Asian	0	0%	0%
Non-aboriginal	0	0%	0%
Decline to state	0	0%	0%
Black/African-American	0	0%	4%
Caucasian/White (non-Hispanic)	1	100%	78%
Hispanic/Latino	0	0%	4%
Native Hawaiian/Other Pacific Islander	0	0%	1%
Decline to state	0	0%	5%
Other	0	0%	1%

31 **Highest level of educational attainment**

Response	# of Responses	% of Responses	National %
Bachelor's degree	0	0%	15%
Master's degree in education	0	0%	41%
Master's degree other than education	0	0%	11%
Teaching certificate - elementary/multiple subject	0	0%	1%
Teaching certificate - single subject	0	0%	1%
Doctorate degree (EdD, PhD)	1	100%	16%
Other	0	0%	15%

32 **Are you a member of any of these education professional associations or their state affiliates?**

Response	# of Responses	% of Responses	National %
AASA	1	100%	12%
CoSN	0	0%	10%
ISTE	0	0%	23%
NAESP	0	0%	5%
NASSP	0	0%	7%
None of the above	0	0%	58%

Speak Up 2011 is generously underwritten this year by the following innovative companies:
Blackboard K-12 DreamBox Learning hp K12 schoolwires come together SMART Technologies Wireless Reach



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2011 Speak Up Survey

Speak Up 2011

Parent Survey

District: CHILTON SCHOOL DISTRICT

Results based on 90 survey(s).
Note: Survey responses are based upon the number of individuals that responded to the specific question.

1 Are you a..

Response	# of Responses	% of Responses	National %
Mom	75	83%	79%
Dad	14	16%	18%
Grandparent	0	0%	1%
Other relative or guardian	1	1%	1%

2 Please select any grades that your child(ren) attend.

Response	# of Responses	% of Responses	National %
Preschool	5	6%	5%
Kindergarten - Grade 1 - Grade 2	19	21%	32%
Grade 3 - Grade 4 - Grade 5	59	66%	36%
Grade 6 - Grade 7 - Grade 8	51	57%	35%
Grade 9 - Grade 10 - Grade 11 - Grade 12	21	24%	36%
Other	2	2%	2%

3 How would you describe your own technology skills?

Response	# of Responses	% of Responses	National %
An advanced tech user – My skills are more advanced than most adults I know	17	19%	36%
An average tech user – My skills are the same as most adults I know	50	56%	59%
A beginner tech user -- I am still learning how to use most technology tools	23	26%	5%

4 **What types of electronic devices do you have access to for your own use? (check all that apply)**

Response	# of Responses	% of Responses	National %
Cell phone (without Internet access)	65	73%	47%
Smartphone (with Internet access such as: Blackberry, Droid, iPhone)	32	36%	67%
Home computer	82	92%	97%
Tablet computer (such as iPad)	16	18%	36%
Digital reader (such as: Kindle, Nook)	10	11%	29%
Music or video device (such as: MP3 player, iPod or iPod Touch)	61	69%	76%
Hand-held game (such as: GameBoy, Nintendo DS)	49	55%	46%
Video Gaming System (such as: xBox, Playstation, Wii)	67	75%	67%
Other	2	2%	3%

5 **What kind of computer and Internet access do you have at home?**

Response	# of Responses	% of Responses	National %
A computer with no Internet access	2	2%	1%
A computer with "dial-up" or slow Internet access	6	7%	1%
A computer with fast Internet access (such as: DSL,	71	81%	92%

Broadband, or cable)			
I access the Internet through a wifi or 3G/4G mobile device like a smartphone or tablet computer.	17	19%	45%
No computer at home. My primary access to technology is at public libraries, community centers, etc.	4	5%	1%
No computer at home. My primary access to technology is where I work	0	0%	1%

6 **Beside not enough funding, what are your top three concerns regarding your child's school right now? (check all that apply)**

Response	# of Responses	% of Responses	National %
Classes are too big	24	32%	41%
I don't feel a connection with the school	9	12%	11%
My child is not engaged in the curriculum or coursework	12	16%	12%
Not enough emphasis is put on preparing my child for a future job	11	15%	14%
School day is too short	1	1%	8%
School does not offer the classes my child needs or wants to take	2	3%	9%
School safety	8	11%	10%
Teacher or administrator quality	7	9%	19%
Teachers don't work with parents to address child's academic or behavioral issues	9	12%	11%
Technology is not used to support learning	8	11%	14%
The school does not effectively communicate with me	5	7%	10%
Too many discipline problems that take away from learning	10	13%	11%
Too many extracurricular programs have been cancelled	12	16%	12%
Too much emphasis on tests	17	23%	27%
Too much homework	25	33%	16%

Other	7	9%	28%

7 **How important is the effective implementation of technology within instruction to your child(ren)'s success?**

Response	# of Responses	% of Responses	National %
Extremely Important	46	53%	50%
Important	36	42%	37%
Somewhat Important	3	3%	11%
Not Important	1	1%	2%
No Opinion	0	0%	0%

8 **Many schools are exploring how to leverage mobile devices such as smartphones (Blackberry, Droid, iPhone) and tablet computers (iPads) to improve student achievement. What do you think would be the primary benefits of incorporating such devices into the classroom instruction? (check all that apply)**

Response	# of Responses	% of Responses	National %
Access to online textbooks	47	55%	59%
Improves teacher-parent-student communications	33	39%	43%
Increases student engagement in school and learning	43	51%	55%
Increases teacher productivity	16	19%	27%
Provides a way for instruction to be personalized for each student	42	49%	46%
Provides a way for students to review classroom material after school	50	59%	57%
Provides a way to help students who are struggling	44	52%	38%
Students develop collaboration and teamwork skills	17	20%	23%
Students develop critical thinking and problem solving skills	31	36%	32%
Students develop stronger communications skills	26	31%	23%
These devices help to extend learning beyond the school day	45	53%	48%
Use of these devices will help improve the teacher's	20	24%	23%

technology skills			
I don't think these devices will positively impact learning	7	8%	11%
No significant benefit	1	1%	7%
Other	7	8%	9%

9 If your child's school allowed the use of mobile devices for educational purposes, how likely would you be to provide one for your child?

Response	# of Responses	% of Responses	National %
Very likely	22	26%	37%
Likely	36	42%	25%
Not likely	4	5%	9%
Very unlikely	4	5%	6%
No opinion	1	1%	1%
Unsure	9	11%	8%
I think it is the responsibility of the school to provide technology for my child to use for educational purposes.	9	11%	13%

10 If your child's school allowed the use of mobile devices for educational purposes, how likely would you be to purchase a data plan (such as the fee for Internet access through the device) for your child to use the mobile device?

Response	# of Responses	% of Responses	National %
Very likely	16	19%	29%
Likely	31	36%	23%
Not likely	12	14%	12%
Very unlikely	2	2%	8%
No opinion	0	0%	1%
Unsure	13	15%	8%
I think it is the responsibility of the school to provide Internet access for my child to use for educational purposes.	12	14%	17%

11 Many schools are now providing online classes for their students where the instruction and content is delivered primarily over the Internet. Based upon what you know about online classes, what would be the most important benefits to your child of taking an online class as part of their education? (check all that apply)

Response	# of Responses	% of Responses	National %

Ability to review the material as many times as he/she wanted	52	62%	54%
Ability to work at his/her pace	56	67%	57%
Better fit for how my child wants to learn	34	40%	19%
Get college credit for an advance class	37	44%	38%
Get more individualized attention from the teacher	26	31%	17%
Increase my child's motivation or engagement in the course material	31	37%	26%
Keep my child in school and on track to graduate	18	21%	13%
Make class scheduling easier	23	27%	19%
Take a class not offered at his/her school	44	52%	49%
This would not be good for my child	8	10%	17%
No opinion	2	2%	4%
Other	4	5%	9%

12 **Some schools now require students to take at least one online class as part of their education. Do you agree or disagree with this policy?**

Response	# of Responses	% of Responses	National %
Strongly agree	15	18%	16%
Agree	33	40%	30%
Disagree	24	29%	25%
Strongly disagree	2	2%	12%
No opinion	9	11%	17%

13 **In the future, schools may be required to implement online tests in place of paper-based standardized tests. How comfortable are you with the idea of having your child's annual academic achievement measured through an online test?**

Response	# of Responses	% of Responses	National %
Very comfortable	27	33%	29%
Somewhat comfortable	39	47%	39%
No opinion	9	11%	7%
Somewhat uncomfortable	6	7%	16%
Very uncomfortable	2	2%	8%

14 **Which of these social media tools or applications do you use for your own personal interests? (check all that apply)**

Response	# of Responses	% of Responses	National %
Communicate with others through discussion boards, social networking sites or chat	37	45%	57%
Communicate with others through email, IM or text messaging	77	93%	95%
Contribute to a wiki (such as wikipedia)	4	5%	8%
Create a list of resources I want to remember or share (such as: delicious, digg, diigo, reddit etc.)	3	4%	8%
Create videos to post and share with others	11	13%	19%
Take online classes	20	24%	30%
Update my social networking profile (Facebook or LinkedIn)	35	42%	63%
Upload or download videos, podcasts or photos to/from the Internet	30	36%	51%
Use Twitter to communicate or follow others	6	7%	12%
Use web tools that notify me about things I'm interested in (such as: news or magazine articles, changes to websites)	29	35%	42%
Write collaboratively with others (such as: GOOGLE docs, writeboard or letterpop)	12	14%	15%
Write or contribute to a blog (my own or someone else's)	7	8%	12%
None of the above	2	2%	2%
Other	1	1%	2%

15 **What concerns you the most about your child(ren)'s Internet use at school or home? (check all that apply)**

Response	# of Responses	% of Responses	National %
Advertising and spam	50	60%	58%

Cheating on tests by using mobile devices to look up information	24	29%	32%
Copyright issues/illegal file sharing	18	21%	23%
Cyberbullying	47	56%	57%
Difficulty evaluating the credibility of an online resource	27	32%	45%
Ineffective Internet filters and firewalls	28	33%	47%
Meeting strangers online	66	79%	65%
Online predators	69	82%	69%
Plagiarism by copying and pasting online content	17	20%	32%
Privacy of records and information	37	44%	44%
Sharing too much personal information online	68	81%	72%
Too much time spent using technology	35	42%	51%
Violent or inappropriate video or online games	38	45%	47%
Websites that are inappropriate for my child's age	51	61%	65%
I don't have any concerns	0	0%	2%
Other	1	1%	5%

16 **What do you think is the best way for your child(ren) to learn about digital citizenship and being safe on the Internet? (check all that apply)**

Response	# of Responses	% of Responses	National %
From a teacher	69	83%	75%
From me or other family members	68	82%	90%
From their friends	13	16%	11%
Learn by using technology as part of their regular classes	39	47%	49%
Learn on their own just by using technology	6	7%	6%
Learn on their own (or from other's) mistakes	2	2%	6%
Learn through a special class at school	38	46%	42%
Learn through activities at	42	51%	59%

school (Internet safety assembly, presentations, guest speakers)			
Learn through activities outside of school (such as an afterschool program, church, library, club)	16	19%	18%
Learn through an online class	15	18%	15%
Listen to podcasts or watch videos about Internet safety	19	23%	20%
Other	0	0%	2%

17 **Internationally, there is an interest in encouraging students to pursue careers in science, math, engineering, and technology. Which of these areas are you likely to encourage your child to pursue a career? (check all that apply)**

Response	# of Responses	% of Responses	National %
Science	41	49%	61%
Math	32	39%	45%
Engineering	34	41%	52%
Technology	44	53%	56%
None of the above	4	5%	6%
Not sure	21	25%	16%

18 **How does your school or district currently communicate information with you? (check all that apply)**

Response	# of Responses	% of Responses	National %
Automated phone messages about my child's academic performance	8	10%	12%
Automated phone messages about my child's attendance	8	10%	39%
Broadcast or announcement messages to my home phone	28	34%	51%
Face-to-face meetings	58	71%	52%
Hard copy flyers or newsletters that are sent home with my child or mailed to us	37	45%	51%
Listserv messages or newsletters	4	5%	24%
Local newspaper or public TV announcements	22	27%	9%
Parent association meetings or school board meetings	22	27%	38%

Personal emails	61	74%	65%
Personal phone calls	34	41%	29%
School blog postings	3	4%	7%
School or district Facebook account	12	15%	8%
School portal or website	35	43%	56%
Text message to my cell phone	3	4%	8%
Use Twitter to send updates	0	0%	1%
Other	0	0%	5%

19 **How would you rate the effectiveness of your school or district's communications with you?**

Response	# of Responses	% of Responses	National %
Very Effective	19	23%	27%
Effective	54	65%	57%
Ineffective	6	7%	9%
Very ineffective	1	1%	3%
No opinion/unsure	3	4%	3%

20 **Which of these statements best represents any concerns you have about your child's future? (check all that apply)**

Response	# of Responses	% of Responses	National %
My child learning the right skills in school to be successful in the future	67	82%	73%
My child staying in school and graduating from high school	21	26%	17%
My child getting into a good college	44	54%	53%
My child having to get additional education beyond college to get a good job	38	46%	34%
My child being able to afford a home in our community	23	28%	28%
My child's ability to do better financially than I have done	44	54%	39%
My child having to compete with better educated workers across the globe for jobs	35	43%	38%
No concerns	0	0%	5%
Other	0	0%	6%

21 **If you were on a technology committee for a new school, which of these would you recommend as a good investment to enhance student achievement? (check all that apply)**

Response	# of Responses	% of Responses	National %
Ability for students to use their own mobile devices at school	21	26%	24%
Ability to access the Internet anywhere at school	36	44%	41%
Adaptive learning software which adjusts levels of difficulty and content to address student needs	43	52%	68%
Chat rooms for students to discuss topics while in class	12	15%	11%
Collaboration tools (such as: blogs, social networking sites, wikis, bookmarking)	10	12%	17%
Computer for every student to use at school such as laptop or netbook	40	49%	59%
Digital content (such as: databases, animations, videos etc)	23	28%	30%
Digital media creation tools (video, audio)	22	27%	36%
Digital reader (such as: Kindle, Nook)	29	35%	35%
Electronic portfolios for students	21	26%	29%
Games or virtual simulations	7	9%	12%
Handheld student response systems	16	20%	19%
High speed color printer	21	26%	20%
Instant messaging or text messaging tools	7	9%	8%
Interactive whiteboards (such as: Smartboard, Polyvision)	30	37%	53%
Learning management systems (such as: Blackboard, Moodle, Angel)	18	22%	32%
Mobile devices such as smartphones and MP3 players	11	13%	10%

Online classes	32	39%	36%
Online tests and assessments	28	34%	38%
Online textbooks	40	49%	54%
Online tutors	34	41%	46%
School portal or website	21	26%	47%
Tablet Computer (such as iPad)	28	34%	36%
Tools that help my child(ren) organize their work (such as: organize my assignments, take notes, organize my ideas)	33	40%	54%
Video conferences and webinars	17	21%	23%
Virtual or online whiteboard	18	22%	23%
Virtual reality games or environments	6	7%	6%
Other	3	4%	4%



How much do you agree with this statement: My child(ren)'s school is doing a good job of using technology to enhance student achievement.

Response	# of Responses	% of Responses	National %
Strongly agree	9	11%	12%
Agree	61	74%	52%
Disagree	5	6%	16%
Strongly disagree	0	0%	4%
No opinion	2	2%	7%
Unsure	5	6%	8%



Gender

Response	# of Responses	% of Responses	National %
Female	68	82%	80%
Male	15	18%	20%



Age

Response	# of Responses	% of Responses	National %
Under 29	3	4%	3%
30-39	36	44%	29%
40-49	40	49%	51%
50-59	3	4%	16%
60-69	0	0%	1%
70 +	0	0%	0%

25 Race or Cultural Identity

Response	# of Responses	% of Responses	National %
American Indian/Alaskan Native	1	1%	1%
Aboriginal (First Nations, Metis, Inuit)	0	0%	0%
Non-aboriginal	0	0%	0%
Asian	0	0%	5%
Black/African-American	0	0%	4%
Decline to state	0	0%	0%
Caucasian/White (non-Hispanic)	73	87%	68%
Hispanic/Latino	0	0%	6%
Native Hawaiian/Other Pacific Islander	0	0%	1%
Decline to state	1	1%	5%
Other	1	1%	2%

26 Highest level of educational attainment

Response	# of Responses	% of Responses	National %
Less than high school diploma	0	0%	1%
High school diploma	17	23%	6%
Some College	38	51%	24%
Bachelor's degree	14	19%	36%
Graduate Education	5	7%	33%

27 Household Income

Response	# of Responses	% of Responses	National %
Less than $15,000	5	7%	2%
$15,000 - $24,999	1	1%	3%
$25,000-$49,999	15	20%	10%
$50,000 - $74,999	21	28%	15%
$75,000 - $99,999	23	30%	17%
$100,000 - $149,999	9	12%	26%
$150,000-$200,000	2	3%	14%
Over $200,000	0	0%	13%

28 Are you a member of any organized parent support groups for your child's school? (check all that apply)

Response	# of Responses	% of Responses	National %
Parent-Teacher Association (PTA - part of the national PTA organization)	10	13%	33%
Parent-Teacher Organization or similar local organization	1	1%	18%
Extracurricular parent booster organization (for sports teams, for band, for field trips etc.)	11	15%	23%
School education foundation	1	1%	3%
School site advisory council	0	0%	3%
Technology advisory group for the school or district	1	1%	1%
Room parent	4	5%	14%
None of the above	46	61%	36%
Other	7	9%	8%

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Blackboard K-12 DreamBox Learning hp K12 schoolwires come together SMART Technologies Wireless Reach

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2011 Speak Up Survey

Speak Up 2011

Encuesta para Padres de Familia

District: CHILTON SCHOOL DISTRICT

Results based on 3 survey(s).
Note: Survey responses are based upon the number of individuals that responded to the specific question.

1 Es Ud. el/la...

Response	# of Responses	% of Responses	National %
Madre	2	67%	75%
Padre	1	33%	18%
Abuelo/a	0	0%	2%
Otro pariente/guardián	0	0%	5%

2 Favor de seleccionar el grado que su(s) niño/a(s) cursan

Response	# of Responses	% of Responses	National %
Pre-escolar	0	0%	6%
Kindergarten - Grado 1 - Grado 2	1	33%	37%
Grado 3 - Grado 4 - Grado 5	1	33%	34%
Grado 6 - Grado 7 - Grado 8	3	100%	21%
Grado 9 - Grado 10 - Grado 11 - Grado 12	1	33%	27%
Otro	0	0%	3%

3 Cómo describiría su habilidad tecnológica?

Response	# of Responses	% of Responses	National %
Avanzada – Mis habilidades son más avanzadas que la mayoría de los adultos que yo conozco	1	33%	15%
Promedio – Mis habilidades son similares a las de los adultos que yo conozco	1	33%	38%
Principiante – Recién estoy aprendiendo a utilizar las herramientas tecnológicas	1	33%	47%

4 **Qué tipo de aparatos electrónicos posee o tiene acceso para su uso? (Marque todas las que apliquen)**

Response	# of Responses	% of Responses	National %
Teléfono celular (sin acceso al Internet)	2	67%	64%
Teléfono inteligente (con acceso al Internet, tales como Blackberry, Driod, iPhone)	2	67%	36%
Computadora en casa	1	33%	75%
Computadora tipo tableta (tal como: iPad)	0	0%	12%
Lector digital (como Kindle, Nook)	0	0%	4%
Aparato de música (tocador de MP3, iPod o iPod Touch)	2	67%	44%
Sistema de juegos de mano (como el GameBoy)	1	33%	25%
Sistema de juegos (xBox, Playstation, Wii)	2	67%	43%
Otros	0	0%	4%

5 **Qué tipo de acceso a la Internet tiene Ud. en su casa?**

Response	# of Responses	% of Responses	National %
Tengo una computadora sin acceso a la Internet	0	0%	8%
Tengo una computadora con acceso lento a la Internet vía un modem	0	0%	17%
Tengo una computadora con	0	0%	46%

acceso veloz a la Internet (DSL, Broadband, o cable)			
Accedo al Internet a través de un dispositivo Wi-Fi o un aparato móvil 3G/4G, tal como un teléfono inteligente o computadora tipo tablet.	1	33%	13%
No tengo una computadora en casa. Mi principal acceso a la tecnología es en las bibliotecas públicas, centros comunitarios, etc.	1	33%	11%
No tengo una computadora en casa. Mi principal acceso a la tecnología es mi centro de trabajo.	1	33%	5%

6 **Fuera de la parte económica ¿cuáles son sus tres principales preocupaciones en relación con la escuela de su(s) niño/a(s) en este momento?**

Response	# of Responses	% of Responses	National %
Dan demasiada tarea	1	50%	9%
Demasiado enfasis en el valor de las pruebas	0	0%	8%
Demasiados estudiantes en las aulas	1	50%	35%
El día escolar es muy corto	2	100%	6%
Han eliminado demasiados programas extra-curriculares	0	0%	30%
Hay muchos problemas de disciplina que le restan al aprendizaje	1	50%	17%
La calidad de los profesores o de los administradores	0	0%	8%
La escuela no ofrece las clases que mi(s) niño/a(s) necesita(n) o quiere(n) tomar	0	0%	10%
Los profesores no trabajan con los padres de familia para correjir asuntos académicos o de comportamiento de mi(s) niño/a(s)	0	0%	14%
Mi niño/a(s) no está interesado con el plan de estudios o con el curso	0	0%	4%

No le ponen suficiente énfasis en prepar a mi niño/a(s) para un futuro trabajo	0	0%	9%
No me siento conectado/a a la escuela	0	0%	16%
No se utiliza la tecnología en el aprendizaje	0	0%	8%
No tiene una comunicación efectiva conmigo	0	0%	11%
Seguridad en la escuela	0	0%	25%
Otra razón	0	0%	16%

7 **Que tan importante es la implementación efectiva de la tecnología dentro de la instrucción para el éxito de sus niño/a(s)?**

Response	# of Responses	% of Responses	National %
Extremadamente importante	1	33%	45%
Importante	2	67%	49%
Algo importante	0	0%	4%
No es importante	0	0%	1%
Sin opinión	0	0%	2%

8 **Muchas escuelas están considerando los dispositivos móviles como smartphones (Blackberry, Droid, iPhone) y computadoras tipo tableta (iPads) para mejorar el rendimiento estudiantil. ¿Cuales cree Ud. que serían los beneficios de incorporar estos dispositivos en los salones de clase? (marque todas las que crea)**

Response	# of Responses	% of Responses	National %
Acceso a libros en la Internet	1	33%	53%
Estos aparatos ayudarían a los profesores a que mejoren sus destrezas tecnológicas	0	0%	32%
Estos aparatos ayudarían al aprendizaje fuera de las horas escolares	0	0%	44%
Los estudientes desarrollarían sus habilidades de comunicación	0	0%	38%
Los estudiantes desarrollarían sus habilidades de pensamiento crítico y resolución de problemas	1	33%	29%
Los estudiantes desarrollarían	0	0%	30%

sus habilidades de trabajo en equipo y de colaboración			
Mejoraría el compromiso del estudiante con la escuela y su aprendizaje	0	0%	29%
Mejoraría la comunicación entre el maestro, los padres, y el estudiante	0	0%	40%
Mejoraría la productividad de los maestros	1	33%	23%
Proveería una manera para que los estudiantes repasen el material después de las clases	2	67%	41%
Proveería una manera para que los estudiantes repasen el material de clase después de la escuela	1	33%	39%
Proveería una manera para que la instrucción sea personalizada para cada estudiante	1	33%	24%
No creo que estos aparatos mejoren la enseñanza	0	0%	13%
No creo que sean un beneficio significativo	1	33%	9%
Otra razón	0	0%	5%

9 **Si a su(s) niño/a(s) les permitirían utilizar aparatos móviles para su educación, cual sería la posibilidad que Ud. le pudiera comprar uno?**

Response	# of Responses	% of Responses	National %
Muy posible	0	0%	14%
Posible	2	67%	37%
Dudoso	0	0%	16%
Imposible	1	33%	5%
Sin opinión	0	0%	4%
No estoy muy seguro/a	0	0%	12%
Creo que es responsabilidad de la escuela de proveer tecnología para mi(s) niño/a(s) para usos educativos	0	0%	11%

10 **Si la escuela de su niño/a(s) le permite el uso de aparatos móviles con una finalidad educacional, cuán probable sería que Ud. compre un plan (el costo para el acceso al internet) para que lo utilice su(s) niño/a(s) con el aparato?**

Response	# of Responses	% of Responses	National %
Muy possible	0	0%	11%
Posible	1	33%	40%
Dudoso	0	0%	14%
Imposible	1	33%	4%
Sin opinión	0	0%	6%
No estoy muy seguro/a	1	33%	11%
Creo que es responsabilidad de la escuela de proveer tecnología para mi(s) niño/a(s) para usos educativos	0	0%	14%

11 **Muchas escuelas ahora ofrecen clases a través del Internet para ciertos estudiantes. Basado en lo que sabe acerca de la educación de este tipo ¿Cuáles serían los beneficios más importantes para su(s) niño/a(s) de tomar una clase a través del Internet como parte de su educación? (marque todas las que apliquen)**

Response	# of Responses	% of Responses	National %
Posibilita revisar el material tantas veces como él/ella quisiera	0	0%	57%
Capacidad de trabajar a su ritmo	0	0%	40%
Se ajusta a la manera de aprender de mi(s) niño/a(s)	0	0%	28%
Obtener crédito para clases transferibles a la universidad	0	0%	43%
Obtener la atención más individualizada por parte del profesor	0	0%	26%
Aumentar la motivación o participación de mi(s) niño/a(s) en el curso	0	0%	37%
Mantener a mi(s) niño/a(s) en la escuela y en camino a graduarse	0	0%	37%
Facilita la programación de las clases	0	0%	29%
Tomar una clase que la escuela de mi(s) niño/a(s) no ofrece	0	0%	34%
Esto no sería bueno para mi hijo	2	100%	9%
Sin opinión	0	0%	9%
Otros	0	0%	2%

12 **Algunas escuelas ahora requieren que los estudiantes tomen al menos una clase a través del Internet como parte de su educación. ¿Está Ud. de acuerdo o en desacuerdo con esta política?**

Response	# of Responses	% of Responses	National %
Totalmente de acuerdo	0	0%	29%
De acuerdo	1	50%	48%
En desacuerdo	0	0%	11%
Totalmente en desacuerdo	1	50%	4%
No opino	0	0%	8%

13 **En el futuro las escuelas pudieran implementar pruebas a través del Internet en lugar de pruebas estandarizadas en papel. ¿Cuan cómodo estaría Ud. que a su(s) niño/a(s) les midan su logro académico anual con una prueba a través del Internet?**

Response	# of Responses	% of Responses	National %
Muy cómodo	1	50%	30%
Algo cómodo	1	50%	37%
No opino	0	0%	19%
Algo incómodo	0	0%	12%
Muy incómodo	0	0%	2%

14 **¿Cuáles de estas herramientas de medios sociales o sus aplicaciones utiliza Ud. para sus propios intereses personales?**

Response	# of Responses	% of Responses	National %
Actualizo mi perfil de redes sociales (Facebook o LinkedIn)	1	50%	39%
Colaboro con otros (en: GOOGLE docs, writeboard or letterpop)	1	50%	13%
Contribuyo a un wiki (como wikipedia)	1	50%	4%
Creo videos que publico y comparto con otros	1	50%	4%
Creo una lista de recursos que deseo recordar o compartir en un futuro (tales como: delicious, digg, diigo etc.)	1	50%	4%
Escribo o colaboro en un blog (el mío o de otros)	1	50%	5%
Me comunico con otros a través	1	50%	11%

de pizarras de discusión, sitios de intercambio social o chat			
Me comunico con otros a través del correo electrónico, IM o mensajes de texto	1	50%	49%
Subo o descargo videos, podcasts o fotos al/del Internet	1	50%	19%
Tomo clases en el Internet	1	50%	13%
Utilizo herramientas del Internet que me notifican sobre temas que me interesan, tales como: noticias o artículos, cambios de dirección en la Internet	1	50%	32%
Utilizo Twitter para comunicarme o seguir a otros	1	50%	4%
Ninguna de estas	1	50%	29%
Otro	0	0%	3%

15 **Qué le preocupa más sobre el uso de la Internet por parte de su(s) niños/a(s) en la escuela o en casa?**

Response	# of Responses	% of Responses	National %
Demasiado tiempo dedicado al uso de la tecnología	1	33%	44%
El compartir demasiada información personal	2	67%	62%
El conocer a extraños a través de la Internet	0	0%	80%
El plagio, al copiar y pegar material del Internet	1	33%	37%
Copiándose durante los exámenes utilizando dispositivos móviles para buscar información	1	33%	34%
Intimidación cibernética	1	33%	46%
La dificultad de determinar la credibilidad de un recurso encontrado en la Internet	0	0%	22%
La inefectividad de los filtros y los sistemas de protección contra las infecciones de la Internet	1	33%	30%
La privacidad de los registros y de la información	1	33%	39%

La propaganda y el spam	0	0%	28%
Los asuntos de derechos de autor y el compartir archivos ilegalmente	1	33%	19%
Los depredadores en la Internet	1	33%	60%
Sitios de la Internet que son inapropiados para la edad de mi(s) niño/a(s)	0	0%	57%
Videos y juegos muy violentos e inapropiados	2	67%	62%
No tengo ninguna preocupación	0	0%	4%
Otros	0	0%	1%

16 **Cuál cree Ud. que sería la mejor manera para que sus niño/a(s) aprendan sobre la ciudadanía digital y mantenerse a salvo en el internet?**

Response	# of Responses	% of Responses	National %
Que lo aprendan a través de las actividades en la escuela (reunión de seguridad en internet, presentaciones, oradores invitados)	1	33%	66%
Que lo aprendan a través de las actividades fuera de la escuela (tales como actividades post-académicas, iglesia, biblioteca, club, etc.)	1	33%	14%
Que lo aprendan de los padres/familiares	0	0%	52%
Que lo aprendan de los profesores	0	0%	56%
Que lo aprendan de sus amigos	0	0%	4%
Que lo aprendan en una clase en la Internet	0	0%	18%
Que lo aprendan en una clase especial en la escuela	1	33%	42%
Que lo aprendan mientras utilizan la tecnología como parte de una clase regular	2	67%	23%
Que lo aprendan por su cuenta o de sus errores	0	0%	3%
Que lo aprendan por su propia cuenta mientras utilizan la tecnología	0	0%	3%

Que escuchen a podcasts o que vean videos sobre la seguridad en el internet	1	33%	10%
Otra razón	0	0%	2%

17 **Internacionalmente, existe un interés de fomentar que los estudiantes sigan carreras en las ciencias, matemáticas, ingeniería, y tecnología. Cuáles de estas áreas animaría Ud. a su(s) niño/a(s) a que siga como carrera? (Marque todas las que crea)**

Response	# of Responses	% of Responses	National %
Ciencias	2	67%	56%
Matemáticas	3	100%	57%
Ingeniería	1	33%	47%
Tecnología	2	67%	57%
Ninguna de estas	0	0%	3%
No estoy seguro/a	0	0%	8%

18 **De qué manera la escuela o el distrito le comunica a Ud. la información?**

Response	# of Responses	% of Responses	National %
Anuncios en el periódico local o el canal de TV público	0	0%	8%
Anuncios o boletines enviados a mi casa a través de mi(s) niño/a(s) o por correo	1	33%	61%
Anuncios o difusiones de mensajes al teléfono de mi casa	1	33%	47%
Emails personales	2	67%	27%
Facebook de la escuela o del distrito	0	0%	3%
Llamadas por teléfono personales	0	0%	41%
Mensajes de texto a mi celular	0	0%	5%
Mensajes por el blog de la escuela	0	0%	4%
Mensajes por el sitio web de la escuela	0	0%	15%
Mensajes por twitter	0	0%	1%
Mensajes telefónicos automatizados sobre el rendimiento académico de mi(s) niño/a(s)	0	0%	10%

Mensajes telefónicos automatizados sobre la asistencia de mi(s) niño/a(s)	0	0%	20%
Mensajes tipo listserv o boletines informativos	0	0%	6%
Reuniones de asociación de padres de familia o de la junta de la escuela	0	0%	33%
Reuniones personales	1	33%	17%
Otros	0	0%	0%

19 **Cómo clasificaría la eficacia de la comunicación de su escuela o distrito con Ud?**

Response	# of Responses	% of Responses	National %
Muy efectiva	0	0%	32%
Efectiva	3	100%	53%
Inefectiva	0	0%	6%
Muy inefectiva	0	0%	2%
No tengo una opinión/no estoy seguro(a)	0	0%	8%

20 **¿Cuáles de las siguientes afirmaciones representan su preocupación sobre el futuro de su(s) hijo/a(s)? (Marque todas las que crea)**

Response	# of Responses	% of Responses	National %
Que mi(s) niño/a(s) aprenda(n) en la escuela las habilidades necesarias para tener éxito en el futuro	2	67%	72%
Que mi(s) niño/a(s) permanezca(n) en la escuela y se gradúe(n)	1	33%	62%
Que mi(s) niño/a(s) continúe(n) en una buena universidad	3	100%	69%
Que mi(s) niño/a(s) necesite(n) más educación fuera de la universidad para obtener un buen trabajo	0	0%	34%
Que mi(s) niño/a(s) sea(n) capaz(ces) de comprar una casa en nuestra comunidad	2	67%	17%
Que mi(s) niño/a(s) tenga(n) mejor solvencia económica que yo	3	100%	37%

Que mi(s) niño/a(s) tenga(n) que competir en el trabajo con empleados internacionales mejor educados	0	0%	26%
No tengo ninguna preocupación	0	0%	8%
Otros	0	0%	1%

21 **Si Ud. estuviera en un comité de tecnología para una escuela nueva, cuál sería su recomendación como una buena inversión para mejorar el logro de los estudiantes?**

Response	# of Responses	% of Responses	National %
Impresoras a color de alta capacidad	0	0%	19%
Aparatos móviles tales como smartphones y tocadores de MP2	1	50%	11%
Clases en la Internet	0	0%	36%
Computadora para cada estudiante para su uso en la escuela, tales como las laptop o netbook	1	50%	56%
Computadoras tipo tabla (como las iPad)	0	0%	28%
Contenido digitales (tales como: base de datos, animaciones, videos ect.)	0	0%	21%
Herramientas de colaboración (tales como: blogs, sitios sociales de intercambio, wikis, marcadores de páginas web)	1	50%	15%
Hwerramientas de creación del medio digital (video, audio)	1	50%	16%
Herramientas que ayudarían a su(s) niño/a(s) a que organicen su trabajo (tales como: organizar las asignaturas, tomar notas, organizar las ideas)	1	50%	50%
Juegos o ambientes de realidad virtuales	0	0%	8%
Juegos/Simuladores virtuales	0	0%	6%
La habilidad de entrar a la Internet en cualquier lugar de la escuela	1	50%	20%

La habilidad de usar sus propios equipos móviles en la escuela	1	50%	16%
La página web o portal de la escuela	0	0%	21%
Leedor digital (tales como: Kindle, Nook)	0	0%	12%
Mensajería instantánea o herramientas de mensajería textual	0	0%	9%
Paquete de software de aprendizaje adaptativo que ajusta el nivel de dificultad y contenido de acuerdo a la capacidad del estudiante	0	0%	28%
Pizarras virtuales o en el Internet	0	0%	19%
Pizarras interactivas (tales como: Smartboard, Polyvision)	0	0%	16%
Portafolios electrónicos para estudiantes	1	50%	13%
Pruebas y evaluaciones en el Internet	0	0%	17%
Sistemas de manejo del aprendizaje (tales como: Blackboard, Moodle, Angel)	1	50%	13%
Sistemas de mano para dar respuestas a preguntas	0	0%	14%
Sitios de chateo para que los estudiantes discutan los tópicos durante la clase	1	50%	5%
Textos en la Internet	1	50%	13%
Tutores en la internet	0	0%	20%
Videoconferencias y seminarios en el Internet	0	0%	17%
Otros	0	0%	3%

22 **Cuánto está Ud. de acuerdo con esta declaración: La escuela de mi(s) niño/a(s) hace una buena labor para mejorar los logros académicos usando la tecnología.**

Response	# of Responses	% of Responses	National %
Totalmente de acuerdo	1	33%	29%
De acuerdo	2	67%	53%
En desacuerdo	0	0%	3%
Totalmente en desacuerdo	0	0%	2%

No opino	0	0%	6%
No estoy seguro	0	0%	8%
No creo que esto sea responsabilidad de las escuelas	0	0%	1%

23 Género

Response	# of Responses	% of Responses	National %
Femenino	2	67%	79%
Masculino	1	33%	21%

24 Edad

Response	# of Responses	% of Responses	National %
Menos de 29	0	0%	15%
30-39	2	67%	45%
40-49	1	33%	32%
50-59	0	0%	7%
60-69	0	0%	1%
Más de 70	0	0%	0%

25 Raza o Identidad Cultural

Response	# of Responses	% of Responses	National %
Indio Americano/Nativo de Alaska	0	0%	0%
Asiático	0	0%	0%
Negro/Africano-Americano	0	0%	0%
Caucasio/Blanco (no-Hispanico)	0	0%	0%
Hispano/Latino	2	100%	97%
Nativo Hawaiano/de las islas del Pacífico	0	0%	1%
Reuso contestar	0	0%	1%
Ninguna de las anteriores	0	0%	1%

26 Cual es su más alto grado académico?

Response	# of Responses	% of Responses	National %
Sin diploma escolar	0	0%	25%
Diploma escolar	1	50%	44%

Algunos estudios universitarios	0	0%	13%
Graduado de la universidad	0	0%	14%
Estudios de post-grado	1	50%	4%

27 **Ingresos del hogar**

Response	# of Responses	% of Responses	National %
Menos de $15,000	0	0%	29%
$15,000 - $24,999	1	50%	30%
$25,000-$49,999	1	50%	26%
$50,000 - $74,999	0	0%	8%
$75,000 - $99,999	0	0%	5%
$100,000 - $149,999	0	0%	2%
$150,000-$200,000	0	0%	1%
Más de $200,000	0	0%	0%

28 **¿Es Ud. miembro de algún grupo de apoyo organizado para los padres de familia de la escuela de su(s) hijo/a(s)?**

Response	# of Responses	% of Responses	National %
Asociación de Padres y Maestros (PTA - parte de la organización nacional PTA)	0	0%	6%
Organización de Padres y Maestros o una organización local similar	0	0%	5%
Organización de padres para actividades extracurriculares (deportes en equipos, banda musical, viajes de campo, etc)	0	0%	7%
Fundación escolar de educación	0	0%	1%
Consejo de asesoramiento escolar	0	0%	1%
Grupo de asesoramiento tecnológico para la escuela o el distrito	0	0%	1%
Padre de habitación	0	0%	3%
Ninguna de las anteriores	1	100%	73%
Otros	0	0%	7%

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REPORT - CHILTON

Chilton

Assessment: MS Pretest 10/11 - TechLiteracy Assessment

Report Date: 6/08/2012

Reporting Group:

PRELIMINARY REPORT: This report was generated before the end of the overall assessment window. Assessment-wide aggregate data represents scores for all students who have been scored up to the time of generation but not for all students for this assessment.

DISTRICT SUMMARY STATISTICS

Testing Period: 4/29/2011 - 5/02/2011

Schools Tested: 1

Classes Tested: 1

Student Completions: 87

Students Scored: 87

Students with Considerations: 0

Scale Score Range: 105 - 286

Scale Score Standard Error: ±14

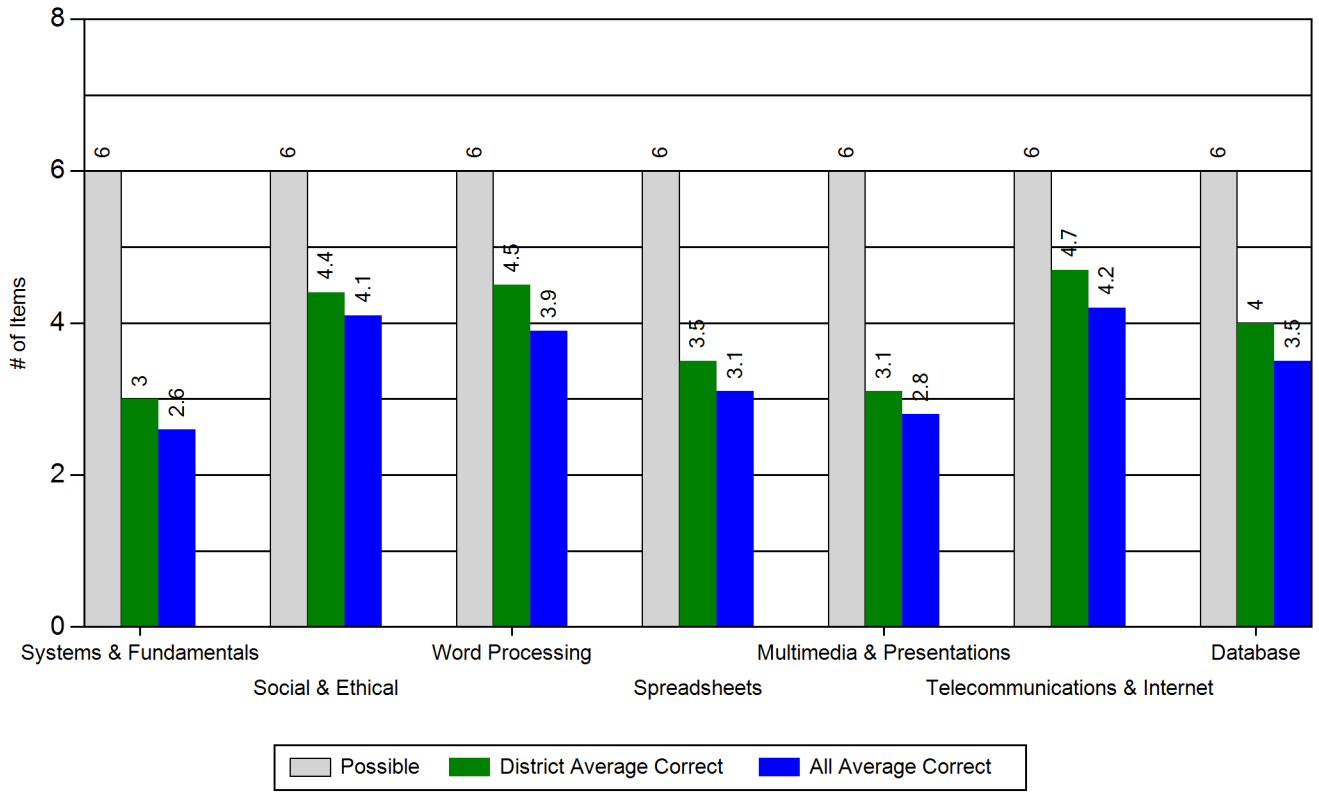
Average Scale Score: 233

Standard Deviation Scale Score: 37

% Students Met Proficiency Standard: 74% (64 / 87)

% Students Below Proficiency Standard: 26% (23 / 87)

SKILL MODULE RESULTS

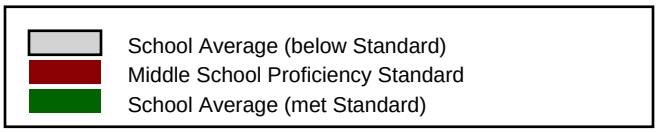


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SCHOOL RESULTS

64 out of 87 (74%) students met the Middle School Proficiency Standard.

School Name	Scaled Score
Chilton Middle	232
-PROFICIENCY STANDARD-	220



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CHILTON ELEM/MDL SCHOOL
Spring 2012

Analysis Overview

Collection Information

Date of Analysis:	28-Apr-2012 12:50:02
Circulation System:	Follett Destiny
Data Integrity:	Good: 99.98% holdings recognized
# of Records:	23227
# of Holdings:	25149
Recognized Call Numbers:	25145
Average Age:	1990
Enrollment:	802
Items per Student:	31.35

School Information

CHILTON ELEM/MDL SCHOOL
421 COURT ST
CHILTON, WI 53014

Contact Information

Name:	Sue E. Salzsieder
Phone:	920 849-3176
Phone (alt):	
Fax:	
Email:	sues@chilton.k12.wi.us
Email (alt):	

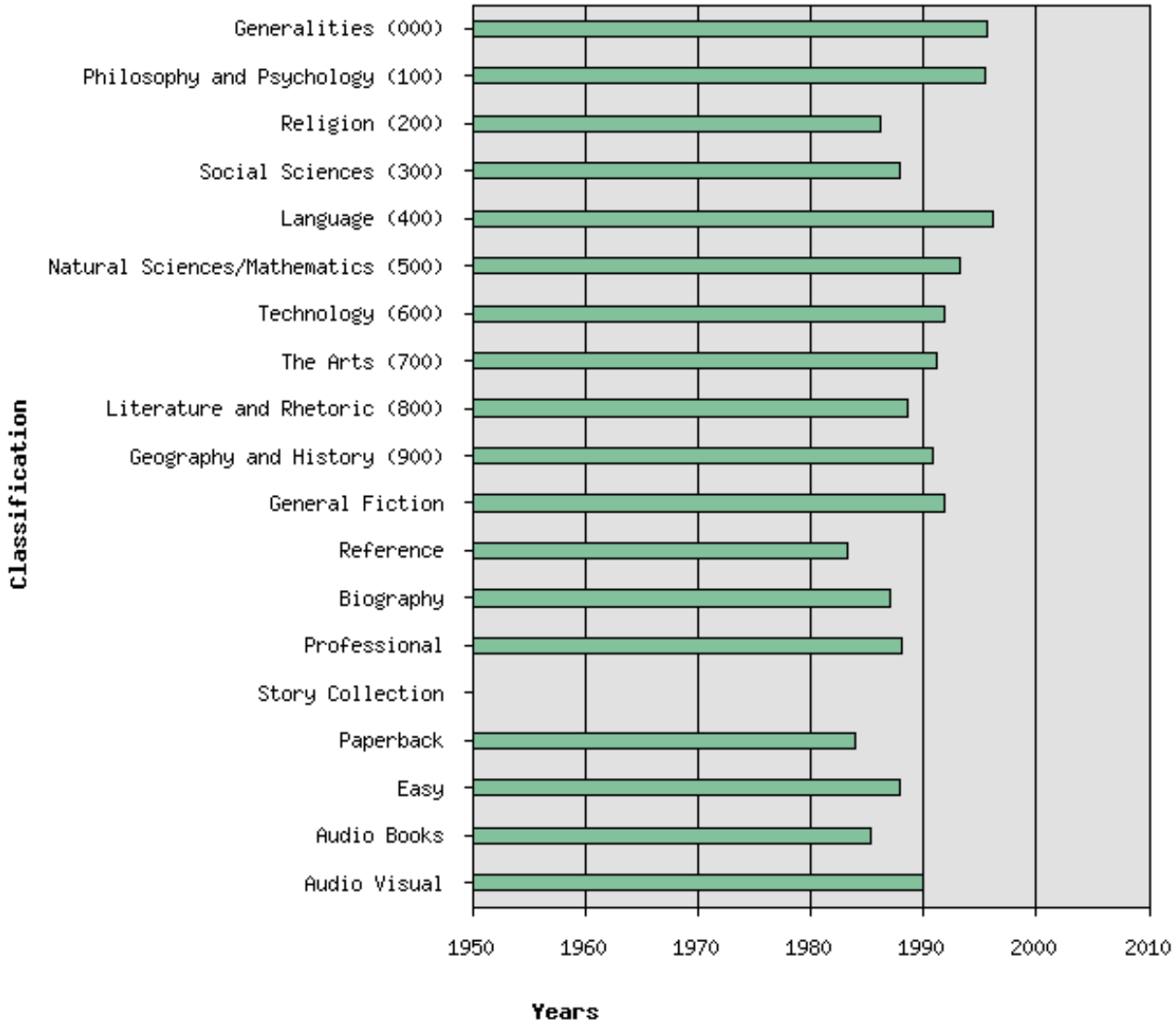
Collection Analysis (by 100s)

	The Hundred Divisions	Average Age	Items	% of Collection
000	Generalities	1996	111	0.44%
100	Philosophy and Psychology	1995	155	0.62%
200	Religion	1986	84	0.33%
300	Social Sciences	1988	1313	5.22%
400	Language	1996	382	1.52%
500	Natural Sciences/Mathematics	1993	1981	7.88%
600	Technology	1992	1116	4.44%
700	The Arts	1991	1076	4.28%
800	Literature and Rhetoric	1989	507	2.02%
900	Geography and History	1991	1792	7.13%
	Hundred Divisions Totals	**1991**	**8517**	**33.87%**

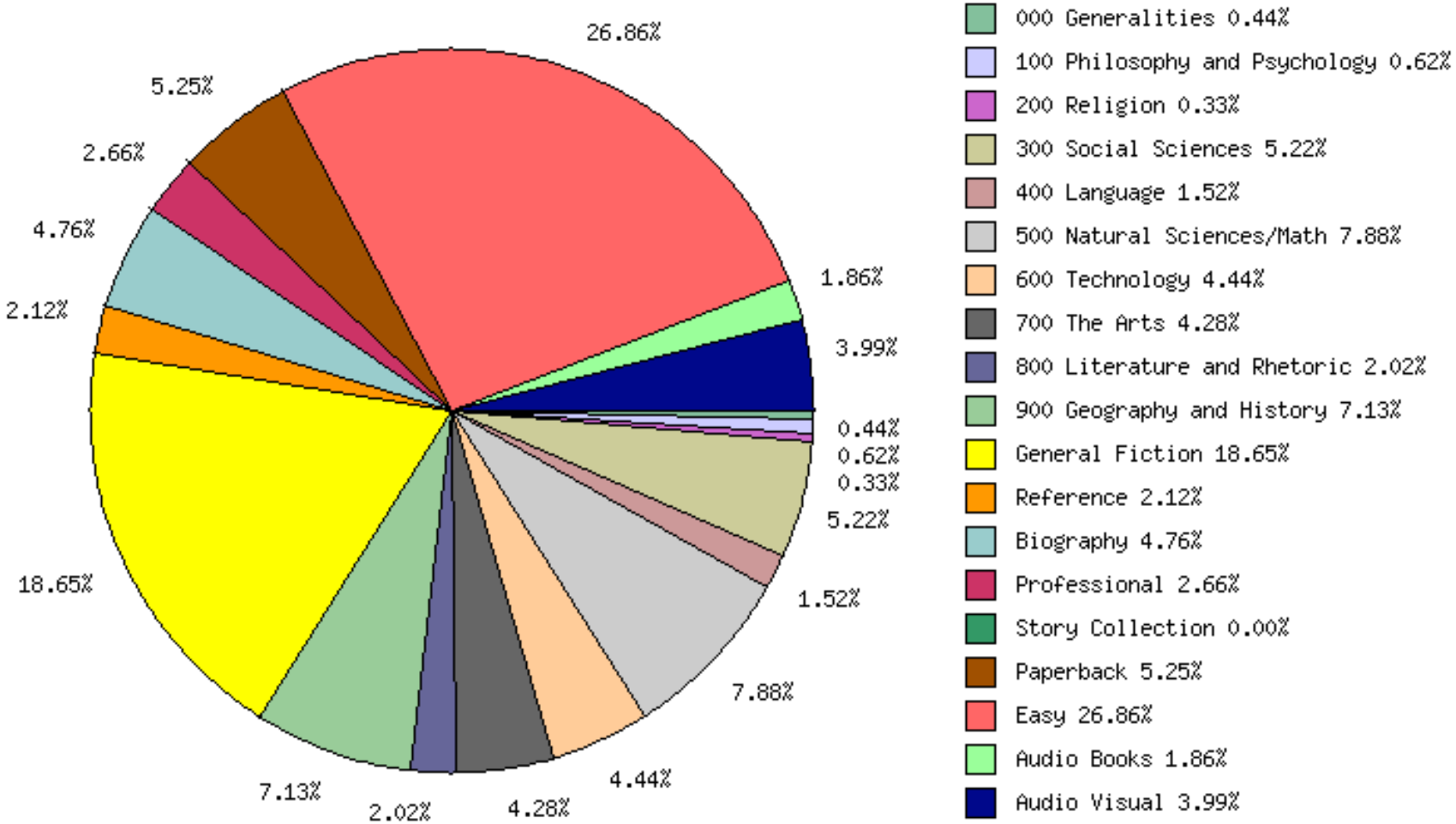
	Additional Category Listings			
	General Fiction	1992	4689	18.65%
	Reference	1983	532	2.12%
	Biography	1987	1197	4.76%
	Professional	1988	668	2.66%
	Story Collection	n/a	0	0.00%
	Paperback	1984	1319	5.25%
	Easy	1988	6753	26.86%
	Audio Books	1985	467	1.86%
	Audio Visual	1990	1003	3.99%
	Additional Category Listings Totals	**1989**	**16628**	**66.13%**

	Totals	**1990**	**25145**	

Collection Analysis (by 100s) - Average Age



Collection Analysis (by 100s) - Main Classification Percentages



Collection Analysis (by 10s)

The Hundreds Divisions

		Age	Items	% of Collection
000	Generalities	1993	43	0.17%
010	Bibliography	1975	1	0.00%
020	Library and Information Sciences	1995	29	0.12%
030	General Encyclopedic Works	2004	26	0.10%
040	n/a	n/a	0	0.00%
050	General Serial Publications	2005	1	0.00%
060	General Organizations and Museology	1984	2	0.01%
070	News Media, Journalism, Publishing	1991	9	0.04%
080	General Collections	n/a	0	0.00%
090	Manuscripts and Rare Books	n/a	0	0.00%
	Generalities Totals	**1996**	**111**	**0.44%**
100	Philosophy and Psychology	n/a	0	0.00%
110	Metaphysics	n/a	0	0.00%
120	Epistemology, Causation, Humankind	n/a	0	0.00%
130	Paranormal Phenomena	1995	27	0.11%
140	Specific Philosophical Schools	n/a	0	0.00%
150	Psychology	1995	90	0.36%
160	Logic	n/a	0	0.00%
170	Ethics	1997	38	0.15%
180	Ancient, Medieval, Oriental Philosophy	n/a	0	0.00%
190	Modern Western Philosophy	n/a	0	0.00%
	Philosophy and Psychology Totals	**1995**	**155**	**0.62%**
200	Religion	2005	1	0.00%
210	Philosophy and Theory of Religion	n/a	0	0.00%
220	Bible	1987	17	0.07%
230	Christianity/Christian Theology	1990	8	0.03%
240	Christian Moral & Devotional Theology	1990	1	0.00%
250	Christian Orders & Local Church	n/a	0	0.00%
260	Social and Ecclesiastical Theology	n/a	0	0.00%
270	History of Christianity	n/a	0	0.00%
280	Christian Denominations & Sects	2002	2	0.01%
290	Comparative and Other Religions	1984	55	0.22%
	Religion Totals	**1986**	**84**	**0.33%**

Collection Analysis (by 10s)

The Hundreds Divisions

		Age	Items	% of Collection
300	Social Sciences	1996	83	0.33%
310	Collections of General Statistics	n/a	0	0.00%
320	Political Science	1998	48	0.19%
330	Economics	1995	79	0.31%
340	Law	1996	45	0.18%
350	Public Admin and Military Science	1999	51	0.20%
360	Social Problems and Services	1996	148	0.59%
370	Education	1996	38	0.15%
380	Commerce, Commun., Transportation	1990	54	0.21%
390	Customs, Etiquette, Folklore	1982	767	3.05%
	Social Sciences Totals	**1988**	**1313**	**5.22%**
400	Language	1983	1	0.00%
410	Linguistics	1988	11	0.04%
420	English and Old English	1998	126	0.50%
430	Germanic Languages, German	1988	5	0.02%
440	Romance Languages, French	1968	16	0.06%
450	Italian, Romanian, Rhaeto-Romanic	1987	4	0.02%
460	Spanish and Portuguese Languages	1999	205	0.82%
470	Italic Languages, Latin	2005	3	0.01%
480	Hellenic Languages, Classical Greek	n/a	0	0.00%
490	Other Languages	1983	11	0.04%
	Language Totals	**1996**	**382**	**1.52%**
500	Natural Sciences/Mathematics	1991	50	0.20%
510	Mathematics	1994	96	0.38%
520	Astronomy and Allied Sciences	1994	139	0.55%
530	Physics	1990	122	0.49%
540	Chemistry and Allied Sciences	1999	38	0.15%
550	Earth Sciences	1992	207	0.82%
560	Paleontology, Paleozoology	1990	175	0.70%
570	Life Sciences, Biology	1995	179	0.71%
580	Plants	1983	71	0.28%
590	Animals	1995	904	3.60%
	Natural Sciences/Mathematics Totals	**1993**	**1981**	**7.88%**

Collection Analysis (by 10s)

The Hundreds Divisions

		Age	Items	% of Collection
600	Technology	1993	22	0.09%
610	Medical Sciences, Medicine	1994	263	1.05%
620	Engineering and Allied Operations	1992	288	1.15%
630	Agriculture	1991	360	1.43%
640	Home Economics and Family Living	1990	105	0.42%
650	Management Auxiliary Services	1985	10	0.04%
660	Chemical Engineering	1995	19	0.08%
670	Manufacturing	1996	5	0.02%
680	Manufacture for Specific Uses	1990	26	0.10%
690	Buildings	1985	18	0.07%
	Technology Totals	**1992**	**1116**	**4.44%**
700	The Arts	1979	39	0.16%
710	Civic and Landscape Art	1988	3	0.01%
720	Architecture	1987	43	0.17%
730	Plastic Arts, Sculpture	1987	26	0.10%
740	Drawing and Decorative Arts	1997	269	1.07%
750	Painting and Paintings	1989	29	0.12%
760	Graphic Arts, Print Making	1986	8	0.03%
770	Photography and Photographs	1991	10	0.04%
780	Music	1987	128	0.51%
790	Recreational and Performing Arts	1991	521	2.07%
	The Arts Totals	**1991**	**1076**	**4.28%**
800	Literature and Rhetoric	1992	63	0.25%
810	American Literature in English	1990	374	1.49%
820	English and Old English Literatures	1981	57	0.23%
830	Literatures of Germanic Languages	1988	2	0.01%
840	Literatures of Romance Languages	1972	1	0.00%
850	Italian, Romanian, Rhaeto-Romanic	n/a	0	0.00%
860	Spanish and Portuguese Literatures	n/a	0	0.00%
870	Italic Literatures, Latin	n/a	0	0.00%
880	Hellenic Literatures, Classical Greek	1975	3	0.01%
890	Literatures of Other Languages	1967	7	0.03%
	Literature and Rhetoric Totals	**1989**	**507**	**2.02%**

Collection Analysis (by 10s)

The Hundreds Divisions

		Age	Items	% of Collection
900	Geography and History	1992	29	0.12%
910	Geography and Travel	1990	139	0.55%
920	Biography, Genealogy, Insignia	1992	108	0.43%
930	History of Ancient World	1993	110	0.44%
940	General History of Europe	1991	224	0.89%
950	General History of Asia	1995	149	0.59%
960	General History of Africa	1993	41	0.16%
970	General History of North America	1990	918	3.65%
980	General History of South America	1995	49	0.19%
990	General History of Other Areas	1993	25	0.10%
	Geography and History Totals	**1991**	**1792**	**7.13%**

Additional Category Listings

	General Fiction	1992	4689	18.65%
	Reference	1983	532	2.12%
	Biography	1987	1197	4.76%
	Professional	1988	668	2.66%
	Story Collection	n/a	0	0.00%
	Paperback	1984	1319	5.25%
	Easy	1988	6753	26.86%
	Audio Books	1985	467	1.86%
	Audio Visual	1990	1003	3.99%
	Additional Category Listings Totals	**1989**	**16628**	**66.13%**

	Totals	**1990**	**25145**	

Balanced Dewey Comparisons

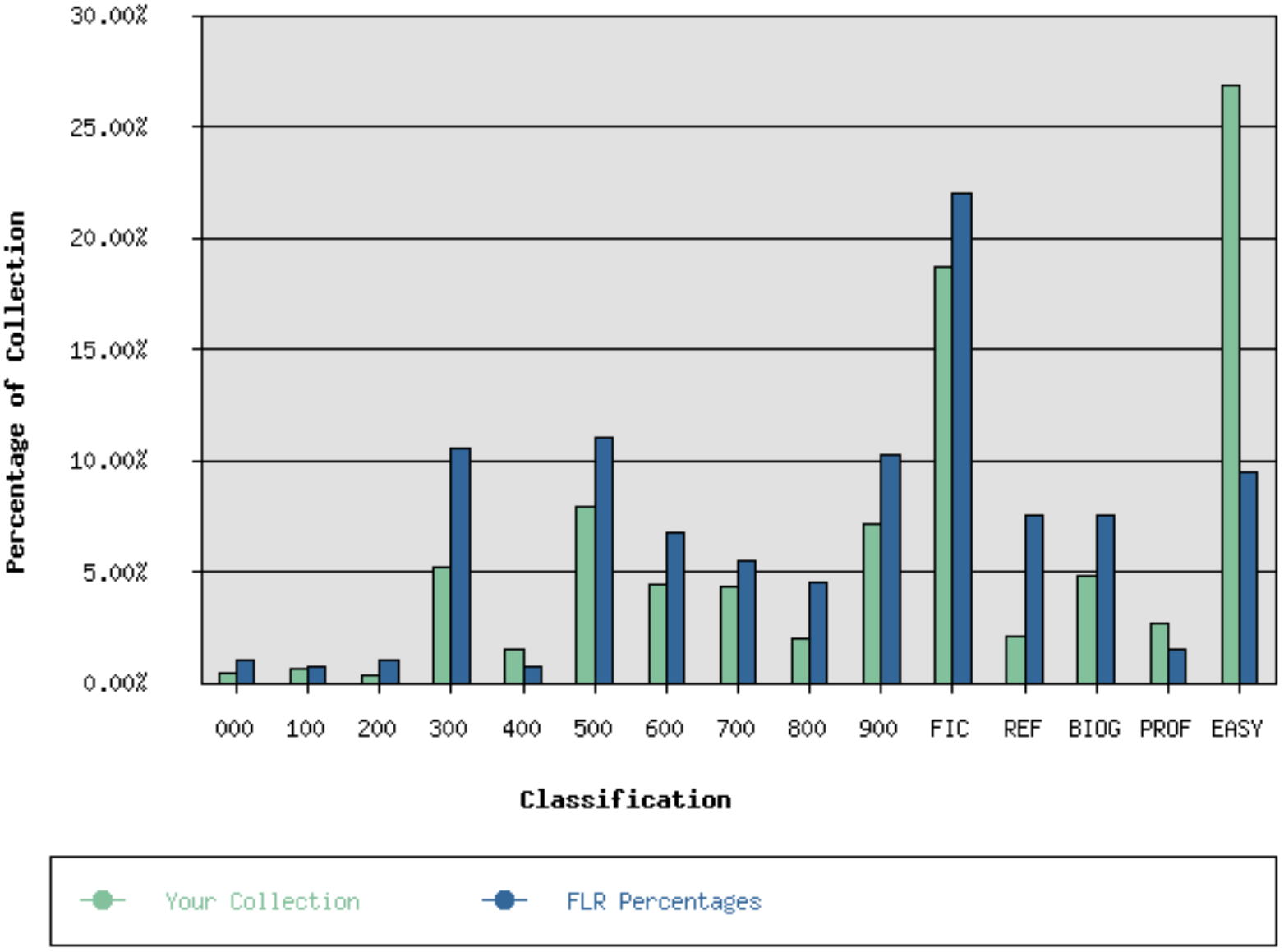
Hundreds Divisions

		Avg Age	Items	% of Collection	FLR Bal. Dewey	Difference
000	Generalities	1996	111	0.44%	1.00%	-0.56%
100	Philosophy and Psychology	1995	155	0.62%	0.75%	-0.13%
200	Religion	1986	84	0.33%	1.00%	-0.67%
300	Social Sciences	1988	1313	5.22%	10.50%	-5.28%
400	Language	1996	382	1.52%	0.75%	0.77%
500	Natural Sciences/Mathematics	1993	1981	7.88%	11.00%	-3.12%
600	Technology	1992	1116	4.44%	6.75%	-2.31%
700	The Arts	1991	1076	4.28%	5.50%	-1.22%
800	Literature and Rhetoric	1989	507	2.02%	4.50%	-2.48%
900	Geography and History	1991	1792	7.13%	10.25%	-3.12%

Additional Category Listings

	General Fiction	1992	4689	18.65%	22.00%	-3.35%
	Reference	1983	532	2.12%	7.50%	-5.38%
	Biography	1987	1197	4.76%	7.50%	-2.74%
	Professional	1988	668	2.66%	1.50%	1.16%
	Story Collection	n/a	0	0.00%	n/a	n/a
	Paperback	1984	1319	5.25%	n/a	n/a
	Easy	1988	6753	26.86%	9.50%	17.36%
	Audio Books	1985	467	1.86%	n/a	n/a
	Audio Visual	1990	1003	3.99%	n/a	n/a
	Totals	**1990**	**25145**			

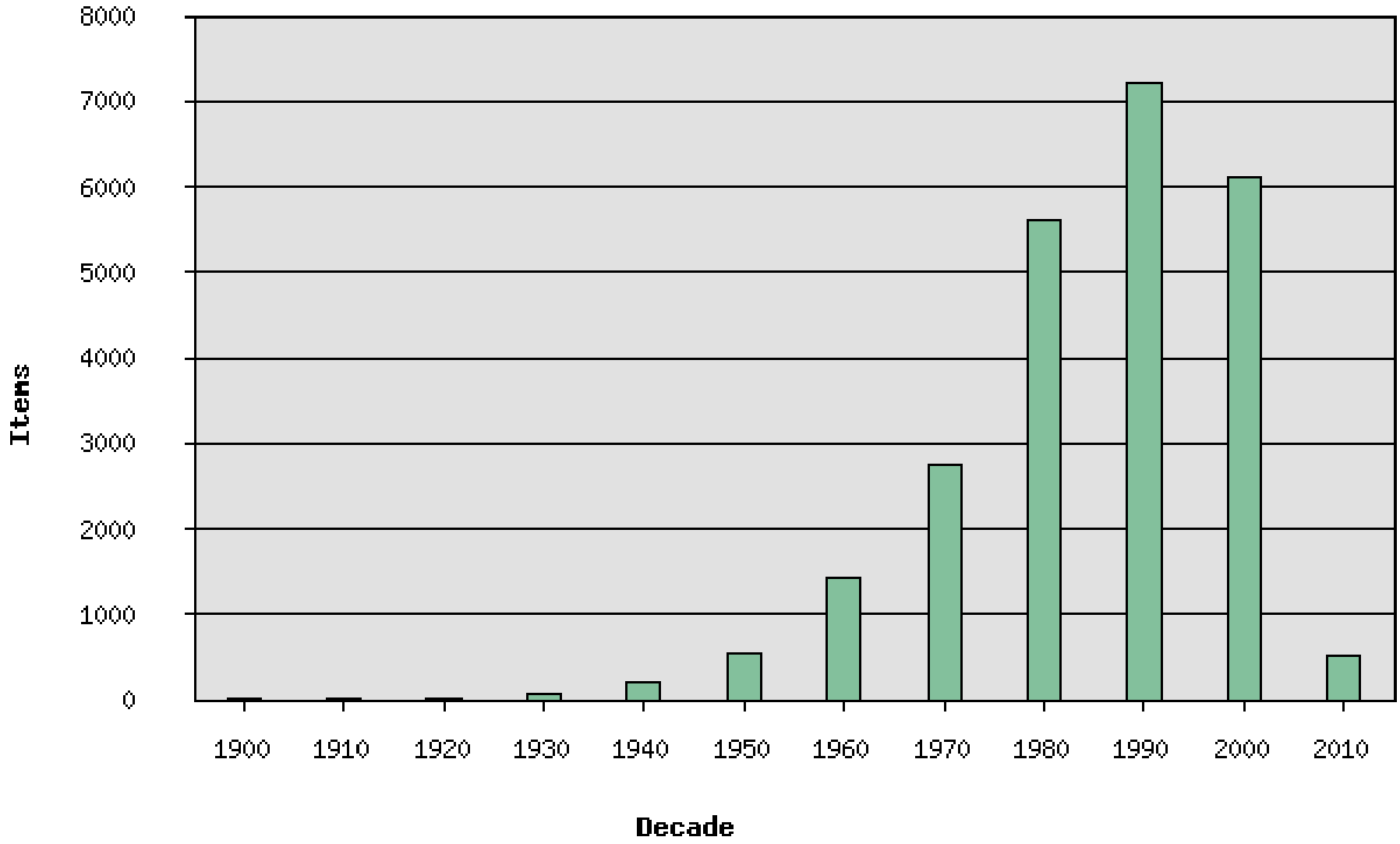
Balanced Dewey Comparisons



Collection By Year

Decade	# of Books
1900	3
1910	8
1920	25
1930	82
1940	200
1950	551
1960	1427
1970	2743
1980	5607
1990	7209
2000	6119
2010	506
No year given/out of range	669
Total	25149

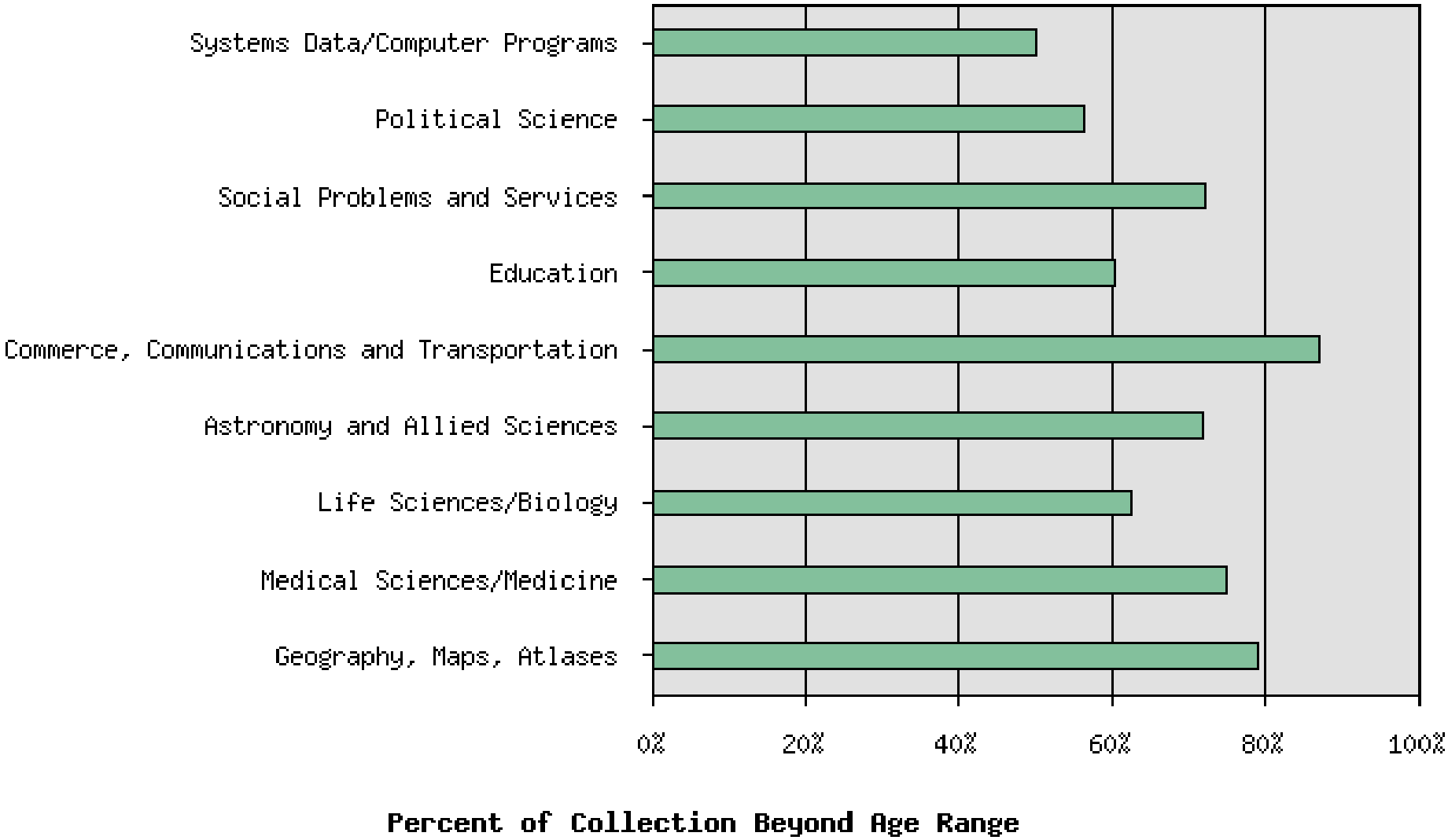
Collection By Year



Age Sensitivity

	Dewey Ranges	Acceptable Age (Years)	Items in Collection	Aged	
003-007	Systems Data/Computer Programs	5	4	2	50.00%
320-329	Political Science	10	48	27	56.25%
361-369	Social Problems and Services	10	148	107	72.30%
370-379	Education	10	38	23	60.53%
380-389	Commerce, Communications and Transportation	10	54	47	87.04%
520-529	Astronomy and Allied Sciences	10	139	100	71.94%
570-579	Life Sciences/Biology	10	179	112	62.57%
610-619	Medical Sciences/Medicine	10	259	194	74.90%
910-919	Geography, Maps, Atlases	10	139	110	79.14%

Age Sensitivity



The Hundred Divisions (Summary)

000 Generalities
010 Bibliography
020 Library and Information Sciences
030 General Encyclopedic Works
040 n/a
050 General Serial Publications
060 General Organizations and Museology
070 News Media, Journalism, Publishing
080 General Collections
090 Manuscripts and Rare Books

100 Philosophy and Psychology
110 Metaphysics
120 Epistemology, Causation, Humankind
130 Paranormal Phenomena
140 Specific Philosophical Schools
150 Psychology
160 Logic
170 Ethics
180 Ancient, Medieval, Oriental Philosophy
190 Modern Western Philosophy

200 Religion
210 Philosophy and Theory of Religion
220 Bible
230 Christianity/Christian Theology
240 Christian Moral & Devotional Theology
250 Christian Orders & Local Church
260 Social and Ecclesiastical Theology
270 History of Christianity
280 Christian Denominations & Sects
290 Comparative and Other Religions

300 Social Sciences
310 Collections of General Statistics
320 Political Science
330 Economics
340 Law
350 Public Admin and Military Science
360 Social Problems and Services
370 Education
380 Commerce, Commun., Transportation
390 Customs, Etiquette, Folklore

400 Language
410 Linguistics
420 English and Old English
430 Germanic Languages, German
440 Romance Languages, French
450 Italian, Romanian, Rhaeto-Romanic
460 Spanish and Portuguese Languages
470 Italic Languages, Latin
480 Hellenic Languages, Classical Greek
490 Other Languages

500 Natural Sciences/Mathematics
510 Mathematics
520 Astronomy and Allied Sciences
530 Physics
540 Chemistry and Allied Sciences
550 Earth Sciences
560 Paleontology, Paleozoology
570 Life Sciences, Biology
580 Plants
590 Animals

600 Technology
610 Medical Sciences, Medicine
620 Engineering and Allied Operations
630 Agriculture
640 Home Economics and Family Living
650 Management Auxiliary Services
660 Chemical Engineering
670 Manufacturing
680 Manufacture for Specific Uses
690 Buildings

700 The Arts
710 Civic and Landscape Art
720 Architecture
730 Plastic Arts, Sculpture
740 Drawing and Decorative Arts
750 Painting and Paintings
760 Graphic Arts, Print Making
770 Photography and Photographs
780 Music
790 Recreational and Performing Arts

800 Literature and Rhetoric
810 American Literature in English
820 English and Old English Literatures
830 Literatures of Germanic Languages
840 Literatures of Romance Languages
850 Italian, Romanian, Rhaeto-Romanic
860 Spanish and Portuguese Literatures
870 Italic Literatures, Latin
880 Hellenic Literatures, Classical Greek
890 Literatures of Other Languages

900 Geography and History
910 Geography and Travel
920 Biography, Genealogy, Insignia
930 History of Ancient World
940 General History of Europe
950 General History of Asia
960 General History of Africa
970 General History of North America
980 General History of South America
990 General History of Other Areas



CHILTON HIGH SCHOOL
Spring 2012

Analysis Overview

Collection Information

Date of Analysis:	30-Apr-2012 13:33:24
Circulation System:	Follett Destiny
Data Integrity:	Good: 99.38% holdings recognized
# of Records:	10098
# of Holdings:	10805
Recognized Call Numbers:	10738
Average Age:	1990
Enrollment:	372
Items per Student:	28.87

School Information

CHILTON HIGH SCHOOL
530 W MAIN STREET
CHILTON, WI 53014

Contact Information

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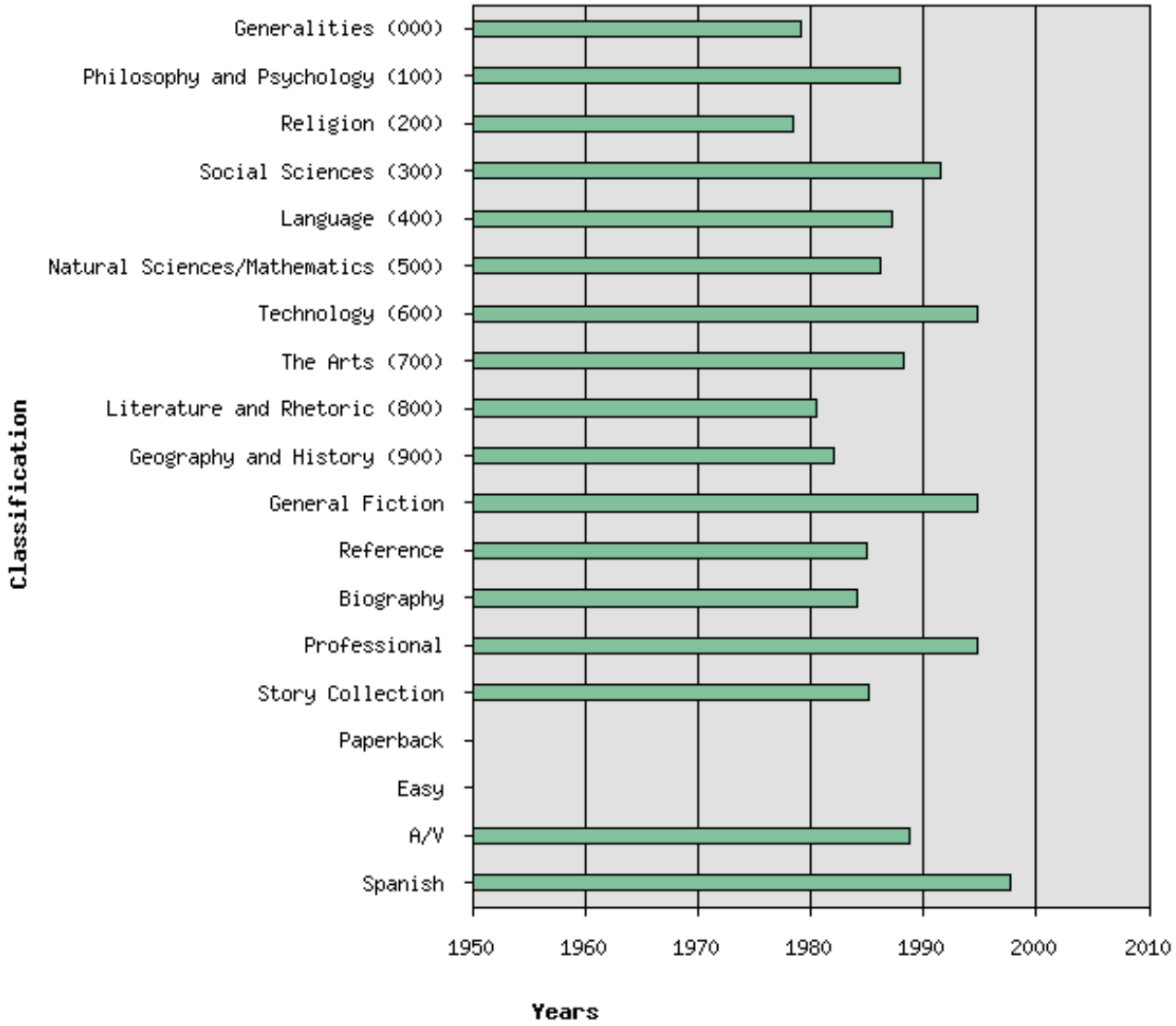
Collection Analysis (by 100s)

	The Hundred Divisions	Average Age	Items	% of Collection
000	Generalities	1979	130	1.21%
100	Philosophy and Psychology	1988	196	1.83%
200	Religion	1978	115	1.07%
300	Social Sciences	1992	1137	10.59%
400	Language	1987	30	0.28%
500	Natural Sciences/Mathematics	1986	361	3.36%
600	Technology	1995	625	5.82%
700	The Arts	1988	722	6.72%
800	Literature and Rhetoric	1980	435	4.05%
900	Geography and History	1982	1284	11.96%
	Hundred Divisions Totals	**1987**	**5035**	**46.89%**

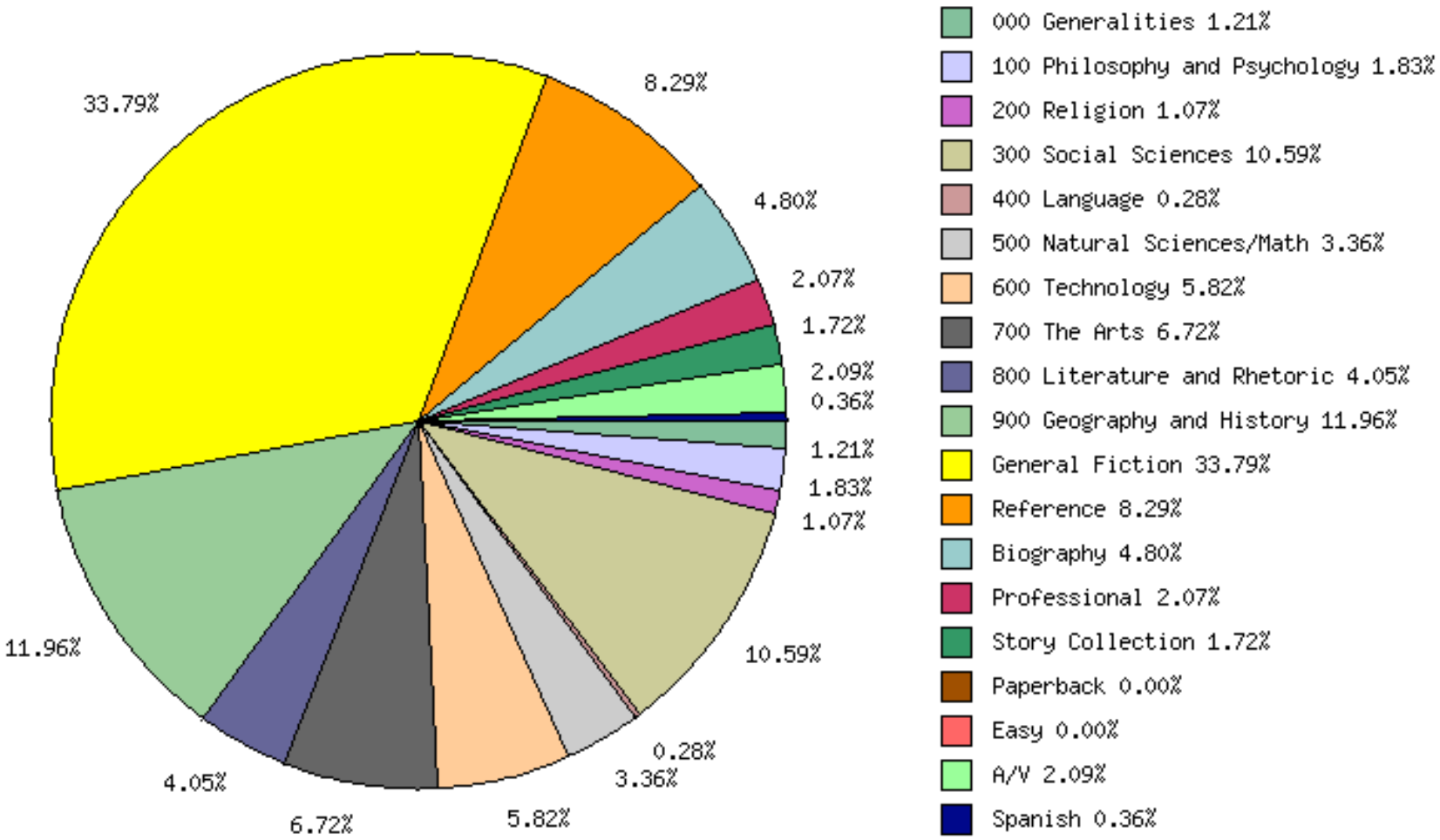
	Additional Category Listings			
	General Fiction	1995	3628	33.79%
	Reference	1985	890	8.29%
	Biography	1984	515	4.80%
	Professional	1995	222	2.07%
	Story Collection	1985	185	1.72%
	Paperback	n/a	0	0.00%
	Easy	n/a	0	0.00%
	A/V	1989	224	2.09%
	Spanish	1998	39	0.36%
	Additional Category Listings Totals	**1992**	**5703**	**53.11%**

	Totals	**1990**	**10738**	

Collection Analysis (by 100s) - Average Age



Collection Analysis (by 100s) - Main Classification Percentages



Collection Analysis (by 10s)

The Hundreds Divisions

		Age	Items	% of Collection
000	Generalities	1995	50	0.47%
010	Bibliography	1999	1	0.01%
020	Library and Information Sciences	2001	14	0.13%
030	General Encyclopedic Works	1956	55	0.51%
040	n/a	n/a	0	0.00%
050	General Serial Publications	n/a	0	0.00%
060	General Organizations and Museology	n/a	0	0.00%
070	News Media, Journalism, Publishing	1994	8	0.07%
080	General Collections	1990	2	0.02%
090	Manuscripts and Rare Books	n/a	0	0.00%
	Generalities Totals	**1979**	**130**	**1.21%**
100	Philosophy and Psychology	1997	2	0.02%
110	Metaphysics	n/a	0	0.00%
120	Epistemology, Causation, Humankind	1967	1	0.01%
130	Paranormal Phenomena	1981	60	0.56%
140	Specific Philosophical Schools	n/a	0	0.00%
150	Psychology	1989	84	0.78%
160	Logic	n/a	0	0.00%
170	Ethics	1994	48	0.45%
180	Ancient, Medieval, Oriental Philosophy	n/a	0	0.00%
190	Modern Western Philosophy	2004	1	0.01%
	Philosophy and Psychology Totals	**1988**	**196**	**1.83%**
200	Religion	1987	13	0.12%
210	Philosophy and Theory of Religion	1983	2	0.02%
220	Bible	1975	11	0.10%
230	Christianity/Christian Theology	1988	5	0.05%
240	Christian Moral & Devotional Theology	1979	2	0.02%
250	Christian Orders & Local Church	n/a	0	0.00%
260	Social and Ecclesiastical Theology	2005	2	0.02%
270	History of Christianity	1980	6	0.06%
280	Christian Denominations & Sects	1984	8	0.07%
290	Comparative and Other Religions	1975	66	0.61%
	Religion Totals	**1978**	**115**	**1.07%**

Collection Analysis (by 10s)

The Hundreds Divisions

		Age	Items	% of Collection
300	Social Sciences	1993	227	2.11%
310	Collections of General Statistics	1989	1	0.01%
320	Political Science	1989	126	1.17%
330	Economics	1995	105	0.98%
340	Law	1994	79	0.74%
350	Public Admin and Military Science	1991	34	0.32%
360	Social Problems and Services	1996	312	2.91%
370	Education	1997	53	0.49%
380	Commerce, Commun., Transportation	1987	25	0.23%
390	Customs, Etiquette, Folklore	1979	175	1.63%
	Social Sciences Totals	**1992**	**1137**	**10.59%**
400	Language	n/a	0	0.00%
410	Linguistics	1974	5	0.05%
420	English and Old English	1988	9	0.08%
430	Germanic Languages, German	n/a	0	0.00%
440	Romance Languages, French	2001	1	0.01%
450	Italian, Romanian, Rhaeto-Romanic	n/a	0	0.00%
460	Spanish and Portuguese Languages	1994	12	0.11%
470	Italic Languages, Latin	n/a	0	0.00%
480	Hellenic Languages, Classical Greek	n/a	0	0.00%
490	Other Languages	1975	3	0.03%
	Language Totals	**1987**	**30**	**0.28%**
500	Natural Sciences/Mathematics	1996	38	0.35%
510	Mathematics	1983	20	0.19%
520	Astronomy and Allied Sciences	1998	25	0.23%
530	Physics	1995	7	0.07%
540	Chemistry and Allied Sciences	1985	9	0.08%
550	Earth Sciences	1990	36	0.34%
560	Paleontology, Paleozoology	1990	8	0.07%
570	Life Sciences, Biology	1987	68	0.63%
580	Plants	1973	21	0.20%
590	Animals	1982	129	1.20%
	Natural Sciences/Mathematics Totals	**1986**	**361**	**3.36%**

Collection Analysis (by 10s)

The Hundreds Divisions

		Age	Items	% of Collection
600	Technology	1982	15	0.14%
610	Medical Sciences, Medicine	2000	327	3.05%
620	Engineering and Allied Operations	1995	65	0.61%
630	Agriculture	1988	50	0.47%
640	Home Economics and Family Living	1983	121	1.13%
650	Management Auxiliary Services	2005	18	0.17%
660	Chemical Engineering	1999	6	0.06%
670	Manufacturing	1982	4	0.04%
680	Manufacture for Specific Uses	1992	17	0.16%
690	Buildings	1986	2	0.02%
	Technology Totals	**1995**	**625**	**5.82%**
700	The Arts	1977	81	0.75%
710	Civic and Landscape Art	1984	2	0.02%
720	Architecture	1987	15	0.14%
730	Plastic Arts, Sculpture	1974	37	0.34%
740	Drawing and Decorative Arts	1994	262	2.44%
750	Painting and Paintings	1985	61	0.57%
760	Graphic Arts, Print Making	1983	12	0.11%
770	Photography and Photographs	1983	25	0.23%
780	Music	1988	29	0.27%
790	Recreational and Performing Arts	1989	198	1.84%
	The Arts Totals	**1988**	**722**	**6.72%**
800	Literature and Rhetoric	1982	100	0.93%
810	American Literature in English	1982	205	1.91%
820	English and Old English Literatures	1980	105	0.98%
830	Literatures of Germanic Languages	1967	2	0.02%
840	Literatures of Romance Languages	1965	3	0.03%
850	Italian, Romanian, Rhaeto-Romanic	1946	1	0.01%
860	Spanish and Portuguese Literatures	2003	1	0.01%
870	Italic Literatures, Latin	1965	1	0.01%
880	Hellenic Literatures, Classical Greek	1959	9	0.08%
890	Literatures of Other Languages	1971	8	0.07%
	Literature and Rhetoric Totals	**1980**	**435**	**4.05%**

Collection Analysis (by 10s)

The Hundreds Divisions

		Age	Items	% of Collection
900	Geography and History	1990	30	0.28%
910	Geography and Travel	1978	136	1.27%
920	Biography, Genealogy, Insignia	1986	119	1.11%
930	History of Ancient World	1971	32	0.30%
940	General History of Europe	1979	273	2.54%
950	General History of Asia	1989	127	1.18%
960	General History of Africa	1984	12	0.11%
970	General History of North America	1982	542	5.05%
980	General History of South America	1977	8	0.07%
990	General History of Other Areas	1987	5	0.05%
	Geography and History Totals	**1982**	**1284**	**11.96%**

Additional Category Listings

	General Fiction	1995	3628	33.79%
	Reference	1985	890	8.29%
	Biography	1984	515	4.80%
	Professional	1995	222	2.07%
	Story Collection	1985	185	1.72%
	Paperback	n/a	0	0.00%
	Easy	n/a	0	0.00%
	A/V	1989	224	2.09%
	Spanish	1998	39	0.36%
	Additional Category Listings Totals	**1992**	**5703**	**53.11%**

Totals	**1990**	**10738**	

Balanced Dewey Comparisons

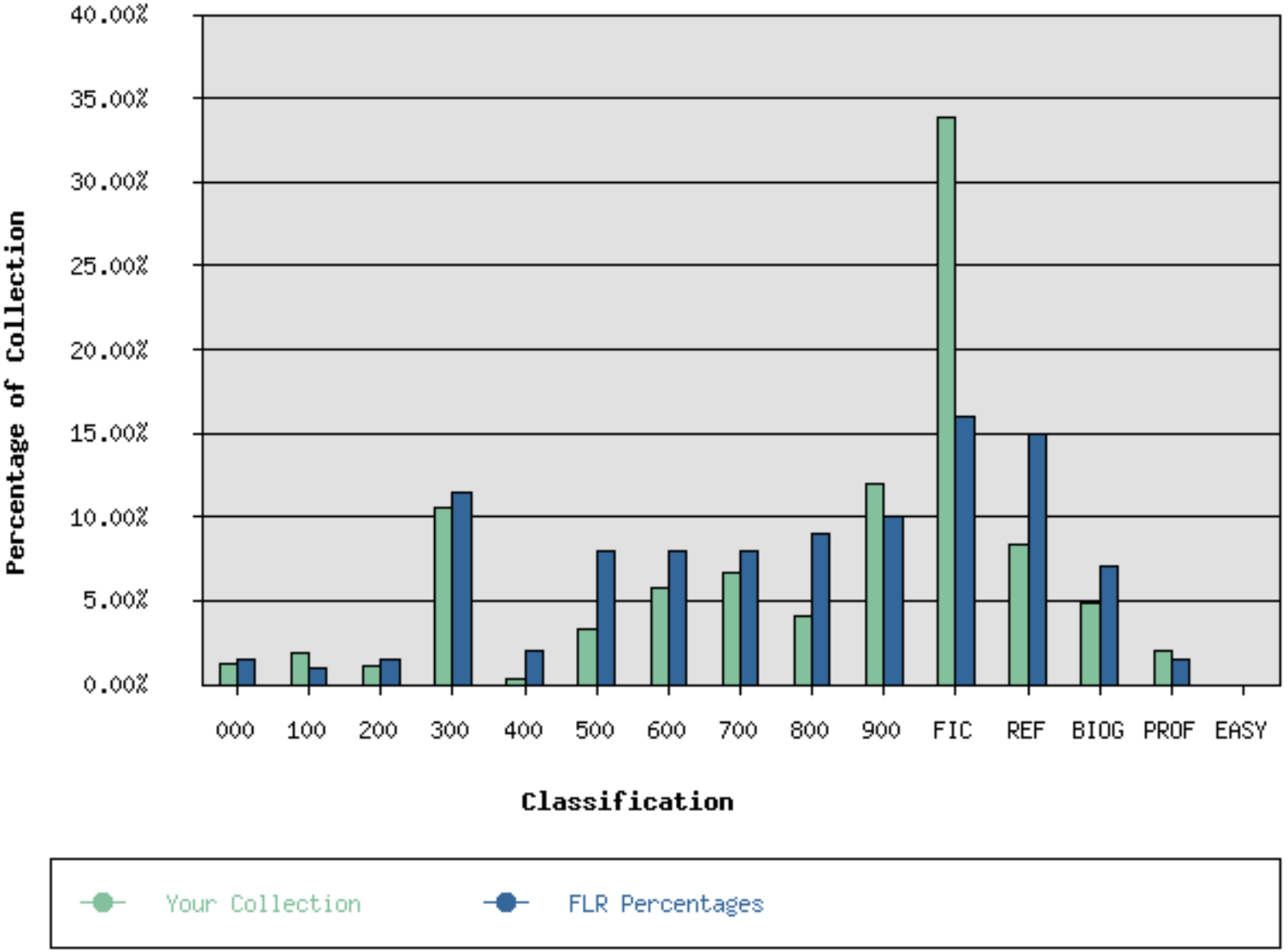
Hundreds Divisions

		Avg Age	Items	% of Collection	FLR Bal. Dewey	Difference
000	Generalities	1979	130	1.21%	1.50%	-0.29%
100	Philosophy and Psychology	1988	196	1.83%	1.00%	0.83%
200	Religion	1978	115	1.07%	1.50%	-0.43%
300	Social Sciences	1992	1137	10.59%	11.50%	-0.91%
400	Language	1987	30	0.28%	2.00%	-1.72%
500	Natural Sciences/Mathematics	1986	361	3.36%	8.00%	-4.64%
600	Technology	1995	625	5.82%	8.00%	-2.18%
700	The Arts	1988	722	6.72%	8.00%	-1.28%
800	Literature and Rhetoric	1980	435	4.05%	9.00%	-4.95%
900	Geography and History	1982	1284	11.96%	10.00%	1.96%

Additional Category Listings

	General Fiction	1995	3628	33.79%	16.00%	17.79%
	Reference	1985	890	8.29%	15.00%	-6.71%
	Biography	1984	515	4.80%	7.00%	-2.20%
	Professional	1995	222	2.07%	1.50%	0.57%
	Story Collection	1985	185	1.72%	n/a	n/a
	Paperback	n/a	0	0.00%	n/a	n/a
	Easy	n/a	0	0.00%	0.00%	0.00%
	A/V	1989	224	2.09%	n/a	n/a
	Spanish	1998	39	0.36%	n/a	n/a
	Totals	**1990**	**10738**			

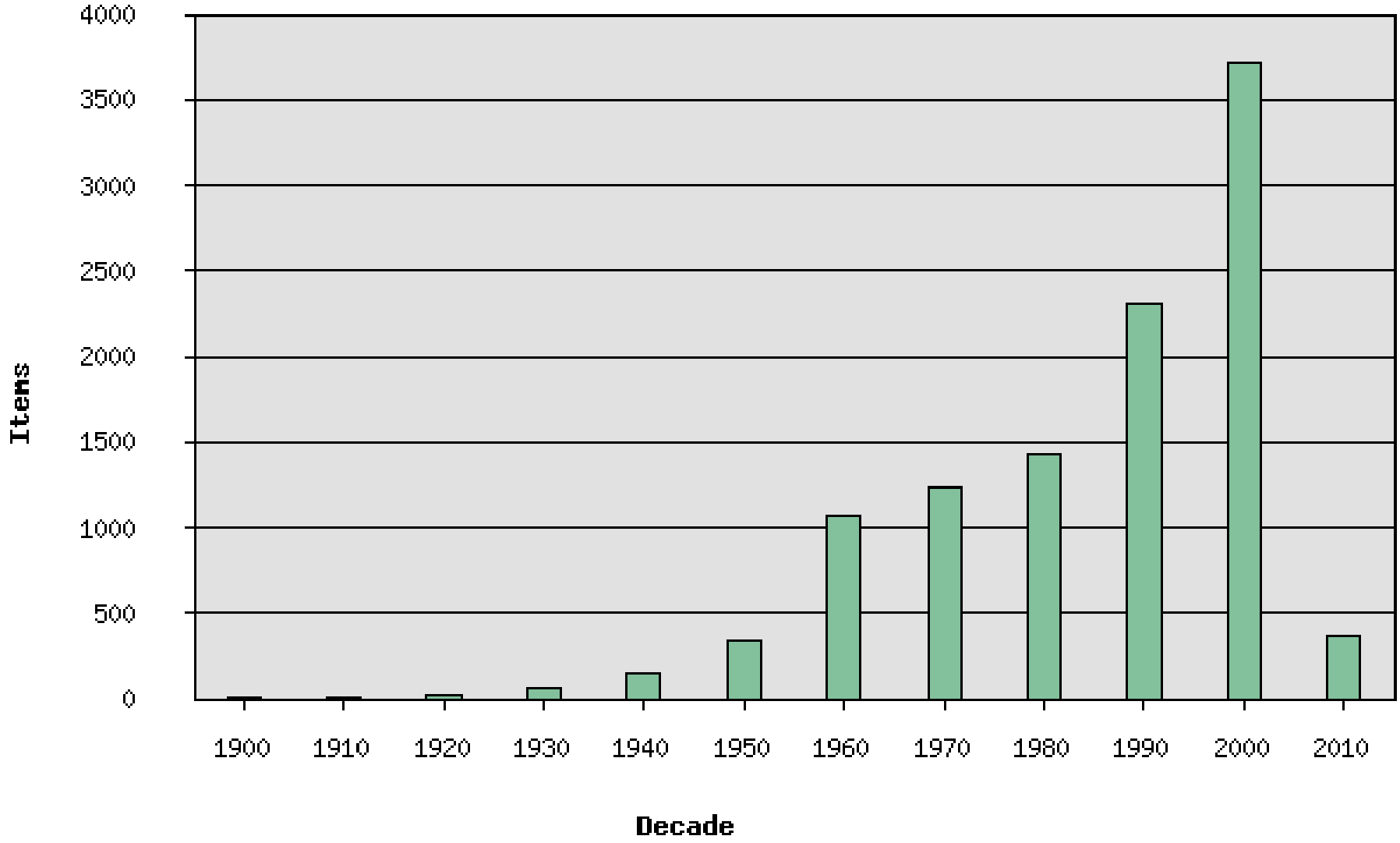
Balanced Dewey Comparisons



Collection By Year

Decade	# of Books
1900	9
1910	7
1920	25
1930	61
1940	150
1950	342
1960	1065
1970	1241
1980	1433
1990	2315
2000	3714
2010	371
No year given/out of range	72
Total	10805

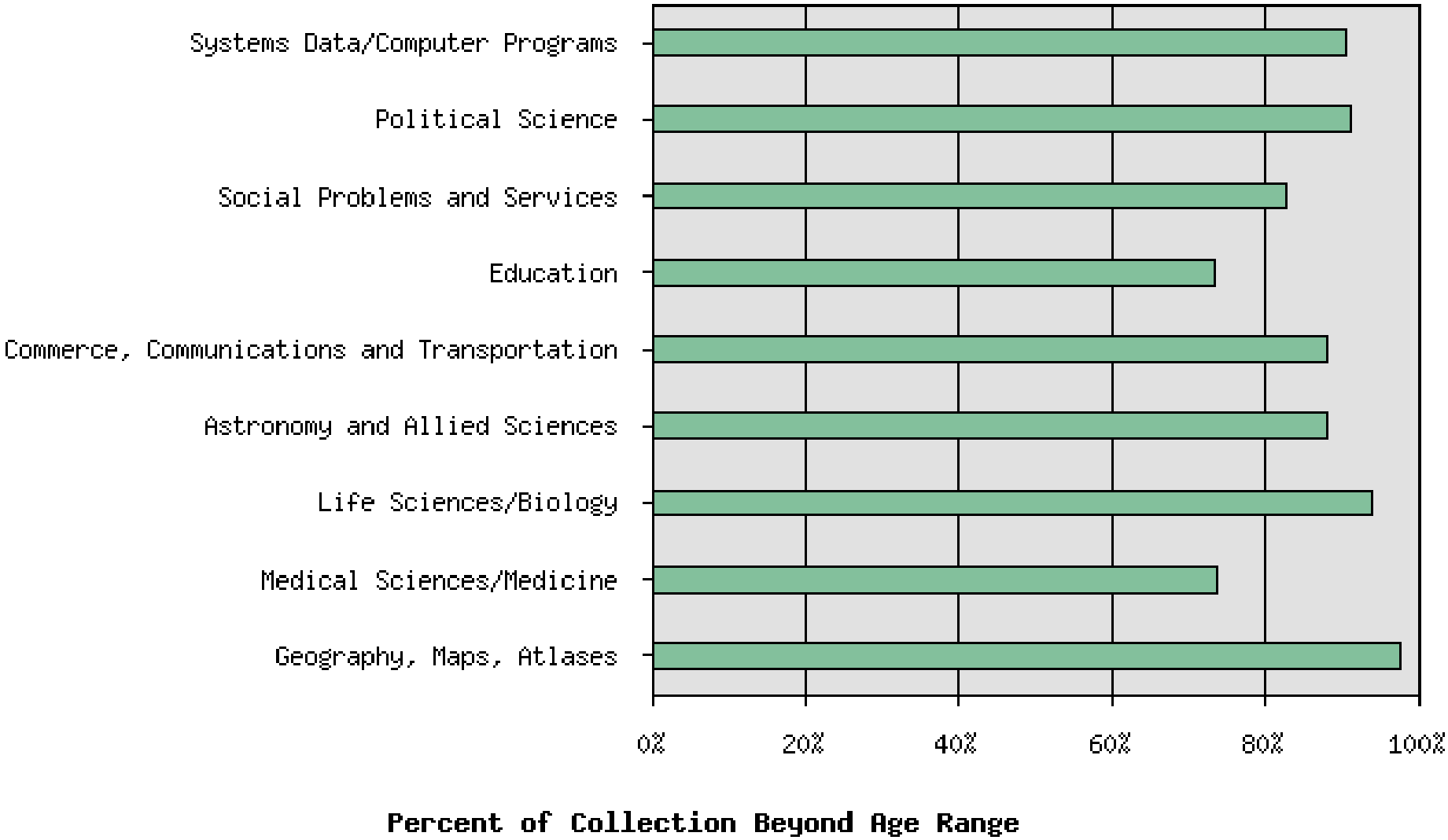
Collection By Year



Age Sensitivity

	Dewey Ranges	Acceptable Age (Years)	Items in Collection	Aged	
003-007	Systems Data/Computer Programs	3	21	19	90.48%
320-329	Political Science	5	125	114	91.20%
361-369	Social Problems and Services	5	312	258	82.69%
370-379	Education	5	53	39	73.58%
380-389	Commerce, Communications and Transportation	5	25	22	88.00%
520-529	Astronomy and Allied Sciences	5	25	22	88.00%
570-579	Life Sciences/Biology	5	67	63	94.03%
610-619	Medical Sciences/Medicine	5	327	241	73.70%
910-919	Geography, Maps, Atlases	5	135	132	97.78%

Age Sensitivity



The Hundred Divisions (Summary)

000 Generalities
010 Bibliography
020 Library and Information Sciences
030 General Encyclopedic Works
040 n/a
050 General Serial Publications
060 General Organizations and Museology
070 News Media, Journalism, Publishing
080 General Collections
090 Manuscripts and Rare Books

100 Philosophy and Psychology
110 Metaphysics
120 Epistemology, Causation, Humankind
130 Paranormal Phenomena
140 Specific Philosophical Schools
150 Psychology
160 Logic
170 Ethics
180 Ancient, Medieval, Oriental Philosophy
190 Modern Western Philosophy

200 Religion
210 Philosophy and Theory of Religion
220 Bible
230 Christianity/Christian Theology
240 Christian Moral & Devotional Theology
250 Christian Orders & Local Church
260 Social and Ecclesiastical Theology
270 History of Christianity
280 Christian Denominations & Sects
290 Comparative and Other Religions

300 Social Sciences
310 Collections of General Statistics
320 Political Science
330 Economics
340 Law
350 Public Admin and Military Science
360 Social Problems and Services
370 Education
380 Commerce, Commun., Transportation
390 Customs, Etiquette, Folklore

400 Language
410 Linguistics
420 English and Old English
430 Germanic Languages, German
440 Romance Languages, French
450 Italian, Romanian, Rhaeto-Romanic
460 Spanish and Portuguese Languages
470 Italic Languages, Latin
480 Hellenic Languages, Classical Greek
490 Other Languages

500 Natural Sciences/Mathematics
510 Mathematics
520 Astronomy and Allied Sciences
530 Physics
540 Chemistry and Allied Sciences
550 Earth Sciences
560 Paleontology, Paleozoology
570 Life Sciences, Biology
580 Plants
590 Animals

600 Technology
610 Medical Sciences, Medicine
620 Engineering and Allied Operations
630 Agriculture
640 Home Economics and Family Living
650 Management Auxiliary Services
660 Chemical Engineering
670 Manufacturing
680 Manufacture for Specific Uses
690 Buildings

700 The Arts
710 Civic and Landscape Art
720 Architecture
730 Plastic Arts, Sculpture
740 Drawing and Decorative Arts
750 Painting and Paintings
760 Graphic Arts, Print Making
770 Photography and Photographs
780 Music
790 Recreational and Performing Arts

800 Literature and Rhetoric
810 American Literature in English
820 English and Old English Literatures
830 Literatures of Germanic Languages
840 Literatures of Romance Languages
850 Italian, Romanian, Rhaeto-Romanic
860 Spanish and Portuguese Literatures
870 Italic Literatures, Latin
880 Hellenic Literatures, Classical Greek
890 Literatures of Other Languages

900 Geography and History
910 Geography and Travel
920 Biography, Genealogy, Insignia
930 History of Ancient World
940 General History of Europe
950 General History of Asia
960 General History of Africa
970 General History of North America
980 General History of South America
990 General History of Other Areas

2010-11 CE&MS Library Schedule

WE WANT TO HELP! JUST ASK US HOW!

					updated 6/2/10	D	S
	MONDAY	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**hours**	
7:50	*library opens*	*library opens*	*library opens*	*library opens*	*library opens*		
8:05	7-8 AE/1-2 AR	7-8 AE/1-2 AR	7-8 AE/1-2 AR	7-8 AE/1-2 AR	7-8 AE/1-2 AR		
8:30							
8:45							
9:00	3M checkout			3W checkout		LIBRARY	LIBRARY
9:15			5-1 checkout				
9:30				pKP checkout	3G checkout		
9:45				pKK checkout			
10:00	5 TECHNOLOGY	5 TECHNOLOGY	5 TECHNOLOGY	5 TECHNOLOGY	5 TECHNOLOGY		
10:15							
10:30	6 TECHNOLOGY	6 TECHNOLOGY	6 TECHNOLOGY	6 TECHNOLOGY	6 TECHNOLOGY		
10:45							
11:00	2HE checkout	2Y checkout	5-2 checkout	3S checkout		*cafeteria duty*	
11:15							
11:30							
11:45							
12:00	DW lunch/Library Club	DW lunch/Library Club	DW lunch/Library Club	DW lunch/Library Club	DW lunch/Library Club	lunch	
12:15	1B checkout						
12:30	SS lunch	SS lunch2HA checkout	SS lunch	SS lunch	SS lunch 2K checkout		lunch
12:45	1W checkout						
1:00	KK SKILLS/6AH check	KBR SKILLS/6JH chec	1B SKILLS/6S checkou	KBA SKILLS	1W SKILLS	LIBRARY	LIBRARY
1:15							
1:30	1D SKILLS	KP SKILLS	KK SKILLS/5-3 checko	pKP checkout	KBR SKILLS		
1:45				pKK checkout			
2:00	2K SKILLS	KBA SKILLS	2HE SKILLS	KP SKILLS	2Y SKILLS		
2:15							
2:30	4M checkout	4Z checkout	5-4 checkout	4K checkout	2HA SKILLS		
2:45			4B checkout				
3:00							
3:15							
3:30	Please let us know of any schedule changes.						
3:45	Please involve us with any assignments involving information/literacy/technology skills.						

2011-12 CE&MS Library Schedule

WE WANT TO HELP! JUST ASK US HOW!

updated 9/16/11

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY		D	S
							hours	
8:00	**KB** SKILLS	**KK** SKILLS	**KB** SKILLS	**KK** SKILLS	**KL** SKILLS	8:00	LIBRARY	LIBRARY
8:10					8S checkout	8:10		
8:23		LUNCH	PKP checkout	3W checkout	**KB** SKILLS	8:23		
8:30						8:30		
8:35		5-1 checkout				8:35		
8:40			PKK checkout			8:40		
8:45				3R checkout	**KP** SKILLS	8:45		
8:50					8J checkout	8:50		
9:00						9:00		
9:08					**KK** SKILLS	9:08		
9:20	6-1 checkout (M)	5-2 checkout	6-2 checkout (AH)			9:20		
9:30					4B checkout	9:30		
9:35	7R checkout	***6-3*** TECHNOLOGY	***6-4*** TECHNOLOGY	***6-2*** TECHNOLOGY	***6-5*** TECHNOLOGY	9:35		
9:40			4K checkout			9:40		
9:45						9:45		
9:50						9:50		
10:00	3S checkout					10:00		
10:10					8F checkout	10:10		
10:20	**KP** SKILLS	**KL** SKILLS	**KP** SKILLS	**KL** SKILLS	8S checkout	10:20		
10:30					***6-1*** TECHNOLOGY	10:30		
10:43					3M checkout	10:43		
10:50		5-3 checkout				10:50		
10:55	7E checkout					10:55		
11:05						11:05	DUTY	
11:10						11:10		
11:15						11:15		
11:20	DW lunch	DW lunch	DW lunch	DW lunch	DW lunch	11:20	lunch	
11:30						11:30		
11:40						11:40		
11:50	SS lunch	SS lunch	SS lunch	SS lunch	SS lunch	11:50	LIBRARY	lunch
12:00						12:00		
12:05	7D checkout				8J checkout	12:05		
12:10						12:10		
12:15						12:15		
12:20		***5-3*** TECHNOLOGY	***5-1*** TECHNOLOGY	***5-4*** TECHNOLOGY	***5-2*** TECHNOLOGY	12:20		LIBRARY
12:30	***LIBRARY CLUB***	***LIBRARY CLUB***	Geiser checkout	***LIBRARY CLUB***	1W checkout	12:30		
12:35			***LIBRARY CLUB***		***LIBRARY CLUB***	12:35		
12:40						12:40		
12:45		2K checkout			2HE checkout	12:45		
12:50	7R checkout					12:50		
1:00			PKP checkout			1:00		
1:05						1:05		
1:10						1:10		
1:15		**1W** SKILLS	**1B** SKILLS	**1D** SKILLS	**1L** SKILLS	1:15		
1:20	6-3 checkout (M)		PKK checkout			1:20		
1:25						1:25		
1:30						1:30		
1:35	7E checkout					1:35		
1:40						1:40		
1:45						1:45		
1:50	2HA checkout				2Y checkout	1:50		
2:00		1L checkout				2:00		
2:10						2:10		
2:15		**2Y** SKILLS	**2HE** SKILLS	**2HA** SKILLS	**2K** SKILLS	2:15		
2:20	7D checkout					2:20		
2:30	4Z checkout					2:30		
2:45						2:45		
2:50	6-4 checkout (M)	5-4 checkout				2:50		
3:00						3:00		

E42

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00		3W			
8:15					KP
8:30					
8:45					KB
9:00		PKP			
9:15					
9:30	4Z	PKK		3M	4K
9:45					
10:00		3S	1L		
10:15	1W				
10:30			3R	1W	3R
10:45					
11:00				Woodcock	
11:15					
11:30		4K	3S	4Z	
11:45					KK
12:00					
12:15					
12:30				1B	1B
12:45		2HE			
1:00	1D				
1:15			2Y	3M	2HA
1:30		KL			
1:45					
2:00	2K	PKP/KK		4B	
2:15			3W		2HE
2:30		PKK			
2:45					
3:00					

M108

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00		Rosetta Stone 7	Rosetta Stone 7		Rosetta Stone 7
8:15					
8:30					
8:45					

8:50		Rosetta Stone 7		Rosetta Stone 7	FERGE
9:00					
9:15					
9:30			5N		
9:35		5N		5N	
9:45					
10:00					
10:15					FERGE
10:20					
10:30					
10:35					
10:45					
11:00					
11:05	Tiger Time 8F	Tiger Time 8M	Tiger Time 8F	Tiger Time 8M	
11:15					
11:30					
11:35					
11:45					
11:50					
12:00			FERGE		FERGE
12:05					
12:15					
12:20					
12:30					
12:45					
12:50	Spelling 6JH		Spelling 6JH	6ho	
1:00		sromek			
1:05					
1:15					
1:30			5N		
1:35	Rosetta Stone 8	Rosetta Stone 8		Rosetta Stone 8	Rosetta Stone 8
1:45					
2:00					
2:15					
2:20		Maronek	Rosetta Stone 8	Rosetta Stone 8	Rosetta Stone 8
2:30					
2:45					
3:00					

M129

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00	Nelson	Nelson	Nelson	Nelson	Nelson
8:15					
8:30					
8:45					
8:50					
9:00					
9:15					
9:30					
9:35		6th - Technology	6th - Technology	6th - Technology	6th - Technology
9:45					
10:00					
10:15					
10:20					6th - Technology
10:30					
10:35		Spelling 5B		Spelling 5B	
10:45					
11:00					
11:05	Tiger Time 7R	Tiger Time 7AD	Tiger Time 7R	Tiger Time 7AD	
11:15					
11:30					
11:35	Tiger Time 6AH	Tiger Time 6M	Tiger Time 6AH	Tiger Time 6M	
11:45					
11:50					
12:00					
12:05					
12:15					
12:20		5th - Technology	5th - Technology	5th - Technology	5th - Technology
12:30					
12:45					
1:00					
1:05	Tiger Time 5N	Tiger Time 5B	Tiger Time 5N	Tiger Time 5B	
1:15					
1:30					
1:35	Spelling 6JH	Spelling 5P	Spelling 6JH	Spelling 5P	6ho
1:45					
2:00		sromek	Sromek	sromek	
2:15					

2:20					
2:30		Spelling 5B		Spelling 5B	
2:45					
3:00					
	M133				
	MONDAY	*TUESDAY*	*WEDNESDAY*	*THURSDAY*	*FRIDAY*
8:00	HANSON	FERGE	FERGE	FERGE	Mayer
8:15					
8:30					
8:45					
8:50					
9:00					
9:15					
9:30					
9:35		Spelling 5P		Spelling 5P	
9:45					
10:00		FERGE	FERGE	FERGE	
10:15					
10:20					
10:30					
10:35					
10:45					
11:00					
11:05	Tiger Time 8J	Tiger Time 8S	Tiger Time 8J	Tiger Time 8S	
11:15					
11:30					
11:35	Tiger Time 6S	Tiger Time 6JH	Tiger Time 6S	Tiger Time 6JH	
11:45					
11:50					
12:00					Mayer
12:05	Spelling 6S	FERGE	Spelling 6S	FERGE	
12:15					
12:20					
12:30					
12:45					
1:00					
1:05	Tiger Time 5P	Tiger Time 5D	Tiger Time 5P	Tiger Time 5D	
1:15					
1:30					

1:35	mARONEK	5N	sromek	5N	
1:45					
2:00					
2:15					
2:20					
2:30					
2:45					
3:00					

M146

	MONDAY	*TUESDAY*	*WEDNESDAY*	*THURSDAY*	*FRIDAY*
8:00	maronek	maronek		sromekg	FERGE
8:15					
8:30					
8:45					
8:50					
9:00			sromek		
9:15					
9:30					
9:35					
9:45					
10:00	Durdahl	Durdahl	Durdahl	Durdahl	Durdahl
10:15					
10:20					
10:30					
10:35					
10:45					
11:00					
11:05	Tiger Time 7E	Tiger Time 7CD	Tiger Time 7E	Tiger Time 7CD	
11:15					
11:30					
11:35					
11:45					
11:50					
12:00	Maronek	Maronek			
12:05					
12:15					
12:20					
12:30					

12:45			sromek	sromek	
1:00					
1:05					
1:15					
1:30		5P			
1:35					
1:45					
2:00	Durdahl	Durdahl	Durdahl	Durdahl	Durdahl
2:15					
2:20					
2:30					
2:45					
3:00					

Laptops

	MONDAY				TUESDAY				WEDNESDAY				THURSDAY				FRIDAY			
	CART 1 - M121	CART 2 - LIBRARY	CART 3 - E32	CART 4 - E10	CART 1 - M121	CART 2 - LIBRARY	CART 3 - E32	CART 4 - E10	CART 1 - M121	CART 2 - LIBRARY	CART 3 - E32	CART 4 - E10	CART 1 - M121	CART 2 - LIBRARY	CART 3 - E32	CART 4 - E10	CART 1 - M124	CART 2 - LIBRARY	CART 3 - E32	CART 4 - E10
8:00	sromek			2nd grade	sromek			2nd grade	sromek			2nd grade	sromek			2nd grade	sromek			2nd grade
8:15																				
8:30																				
8:45																				
8:50																				
9:00																				
9:15																				
9:30																				
9:35		Ebert				Ebert				Ebert				Ebert				Ebert		
9:45																				
10:00																				
10:15																				
10:20																				
10:30																				
10:35																				
10:45																				
11:00																				
11:05																				
11:15																				
11:30																				
11:35																				
11:45																				
11:50																				
12:00																				
12:05																				
12:15																				
12:20																				
12:30																				
12:45																				
1:00																				
1:05																				
1:15								Heinen 16								Heinen 16				
1:30																				
1:35																				Heinen 16
1:45																				
2:00																				
2:15																				
2:20																				
2:30																				
2:45																				
3:00																				

	April 30 - May 4		Monday	Tuesday	Wednesday	Thursday	Friday	
	8:00 - 8:45	1A		Neumueller	Neumueller		Neumueller	
	8:45 - 9:30	1B						
	9:40 - 9:55	HR						
	10:00 - 10:45	2A	koehler					
Library Lab	10:45 - 11:30	2B		hyska AP English				
Room 1062	11:30 -	3						
		3	Neumueller	Neumueller	Neumueller			
27 computers	1:30:00	3						
	1:35 - 2:20	4A						
	2:20 - 3:05	4B						
	8:00 - 8:45	1A						
	8:45 - 9:30	1B						
	9:40 - 9:55	HR						
	10:00 - 10:45	2A						
Library Stations	10:45 - 11:30	2B						
IMC - Room 1064	11:30 -	3						
		3						
15 computers	1:30:00	3						
	1:35 - 2:20	4A		Neumueller	Neumueller	Neumueller	Neumueller	
	2:20 - 3:05	4B		Neumueller	Neumueller	Neumueller	Neumueller	
	8:00 - 8:45	1A		Wurm	s Bartels	S Bartels		
	8:45 - 9:30	1B		Wurm	s Bartels	S Bartels		
	9:40 - 9:55	HR						
	10:00 - 10:45	2A	Rumphol		koehler	koehler	koehler	
Lab 1081	10:45 - 11:30	2B	Rumphol					
	11:30 -	3					Hyska skinny A	
25 computers		3		wurm			Hyska Skinny B	
	1:30:00	3			hyska E12			
	1:35 - 2:20	4A	Rumphol		S Bartels	S Bartels		
	2:20 - 3:05	4B	Rumphol	Rumphol	s Bartels	S Bartels		
	8:00 - 8:45	1A	Kliment			Kliment		
	8:45 - 9:30	1B	Kliment			fritz		
	9:40 - 9:55							
	10:00 - 10:45	2A						
Lab 1063	10:45 - 11:30	2B				fritz		
Tiered lab	11:30 -	3					Kliment 3A	

	April 30 - May 4		Monday	Tuesday	Wednesday	Thursday	Friday
		3					
25 computers	1:30:00	3		12:45-1:30 Kanitz			
	1:35 - 2:20	4A		Kliment	Kliment	Kliment	Kliment
	2:20 - 3:05	4B		Kliment	Kliment	Kliment	Kliment
	8:00 - 8:45	1A	Miller	Miller	Miller	Miller	Miller
	8:45 - 9:30	1B	Miller	Miller	Miller	Miller	Miller
	9:40 - 9:55	HR	Miller	Miller	Miller	Miller	Miller
	10:00 - 10:45	2A	Miller	Miller	Miller	Miller	Miller
Lab 1061	10:45 - 11:30	2B	Miller	Miller	Miller	Miller	Miller
Business lab	11:30 -	3	Miller	Miller	Miller	Miller	Miller
		3	Miller	Miller	Miller	Miller	Miller
25 computers	1:30:00	3	Miller	Miller	Miller	Miller	Miller
	1:35 - 2:20	4A	Miller	Miller	Miller	Miller	Miller
	2:20 - 3:05	4B	Miller	Miller	Miller	Miller	Miller
	8:00 - 8:45	1A			Neumueller (5)	Neumueller	Neumueller (5)
	8:45 - 9:30	1B			Neumueller	Neumueller	Neumueller
	9:40 - 9:55	HR					
Laptop Cart 1	10:00 - 10:45	2A	Porter	Porter	Porter	Porter	Porter
	10:45 - 11:30	2B	Porter	Porter	Porter	Porter	Porter
16 laptop computers	11:30 -	3		Hyska Skinny A			
		3		Hyska Skinny B	Hyska skinny B		
	1:30:00	3				Hyska Skinny B	
	1:35 - 2:20	4A	kanitz 4 computers	Hyska		Hyska	Rumphol
	2:20 - 3:05	4B	kanitz 4	Hyska		Hyska	Rumphol
	8:00 - 8:45	1A	S Bartels	S Bartels		neumueller	S Bartels
	8:45 - 9:30	1B	S Bartels	S Bartels			S Bartels
	9:40 - 9:55	HR					
Laptop Cart 2	10:00 - 10:45	2A				Rumphol	Rumphol
	10:45 - 11:30	2B				Rumphol	Rumphol
10 laptop computers	11:30 -	3					
		3					
	1:30:00	3	Platner (3B)	Platner (3B)	Platner (3B)	Platner (3B)	Platner (3B)
	1:35 - 2:20	4A	Platner	Platner	Platner	Platner	Platner
	2:20 - 3:05	4B	Platner	Platner	Platner	Platner	Platner
	8:00 - 8:45	1A		Neumueller			
	8:45 - 9:30	1B		Neumueller			

	April 30 - May 4		Monday	Tuesday	Wednesday	Thursday	Friday
	9:40 - 9:55	HR					
	10:00 - 10:45	2A		Rumphol			
Laptop Cart 3	10:45 - 11:30	2B		Rumphol			
	11:30 -	3					
13 Nokia Netbooks		3					
	1:30:00	3					
	1:35 - 2:20	4A		S Bartels		Rumphol	S Bartels
	2:20 - 3:05	4B		S Bartels		Rumphol	S Bartels
	8:00 - 8:45	1A					
	8:45 - 9:30	1B					
	9:40 - 9:55	HR					
iPad Cart 1	10:00 - 10:45	2A					
	10:45 - 11:30	2B					
30 ipads	11:30 -	3					
Housed in T. Bartels'		3					
room	1:30:00	3					
	1:35 - 2:20	4A	T Bartels	T Bartels	T Bartels	T Bartels	T Bartels
	2:20 - 3:05	4B	T Bartels	T Bartels	T Bartels	T Bartels	T Bartels

Circulation Statistics								
Material Types	2008-09	2009-10	2010-11	2011-12	2008-09	2009-10	2010-11	2011-12
	CE&MS				CHS			
000 - Generalities	899	966	1005	1042	9	6	10	7
100 - Philosophy	439	565	519	463	48	35	16	10
200 - Religion	139	176	174	138	9	7	2	2
300 - Social Sciences	1789	1467	1488	1951	132	111	87	108
400 - Languages	754	616	339	837	4	4	3	1
500 - Sciences	9445	4781	4574	5787	41	21	28	17
600 - Technology	3907	3112	2903	3125	120	96	58	74
700 - Arts	3751	2716	3773	4619	36	74	95	121
800 - Literature	821	854	648	909	23	26	38	45
900 - Geography & History	2873	2985	2735	2804	93	87	52	47
Audio Books	1456	1181	895	708				
Audiovisual	631	401	279	168	6	19	12	9
Braille	67	32	1	3				
CDROM	42	6						
E-Book					8	4	1	18
Easy	38296	28772	28469	30162				
Equipment	564	387	241	203	50	31	13	56
Fiction	16469	14944	15249	16237	1593	1455	1207	1364
Interlibrary loans	294	363	336	296				
ITV Manuals & Videos	104	58	32	28				
Magazines	1965	812	977	1059	66	23	2	
Professional	124	51	17	7	2	13	3	21
Paperbacks	2835	1782	1913	1483				
Reference	119	65	20	5	63	52	45	39
Story Collections					47	27	35	15
Spanish						1	1	1
Textbook	5							
other	12	0	0	0	0	0	0	0
TOTAL	87800	67092	66587	72034	2350	2092	1708	1955

Circulation statistics are from July 1 - June 30.

Inventory of Hardware and Software

General Information	
District Name	School District of Chilton
Number of Schools	3
Number of students	1166
Number of teachers	94
Number of staff	62
Number of administrators	5.5
Website	www.chilton.k12.wi.us

Instructional Software District Supported	District	CHS	CMS	CES
Automated Accounting		X		
A-Z Learning				X
Board Maker				X
Course Test Manager		X		
DINE Healthy		X		
Epals	X		X	X
Exam View Test Taker		X		
Geometers Sketchpad		X		
G-mail		X		
Graphmatica		X		
Harcourt School				X
Inspiration/Kidspiration	X			X
Kid Pix Studio Deluxe			X	X
Learning.com Easy Tech 21St Century Assessment			X	X
Logger Pro3/Graphical Analysis		X		
Microsoft Office 2010	X			
MSW Logo			X	
Odyssey	X			
Renaissance Learning STAR Math STAR Reading			X X	X X
Rosetta Stone	X			
Scantron's Achievement Series			X	X
Spelling City			X	
TumbleBooks				X

Administrative and Management Software	District
Kaseya	X
Lightspeed (internet filter)	X
MealsPlus(lunch)	X
Microsoft Outlook (e-mail)	X
NWEA (testing)	X
PowerGrader	X
PowerSchool (administration)	X
Skyward (accounting)	X
Tetradata (data warehouse)	X
Winpack	X

Other technologies	District
Cable access	Charter Communications

Distance Learning	District	CHS	CE&MS
Badger Net		X	

Library Media Software	District	CHS	CE&MS
Destiny Library Manager	X		

Library Media Online Subscriptions	District	CHS	CE&MS
America's Newspapers		X	
Atomic Learning	X		
BadgerLink	X		
Discovery Streaming	X		
SIRS		X	
Teen Health and Wellness		X	
Tumblebooks			X
WISCareers	X		
WISCAT	X		

Library Media Subscriptions	District	CHS	CE&MS
Periodical Subscriptions		45	45
Newspaper Subscriptions		6	4

Library Media Inventory	CHS	CE&MS
000 - Generalities	130	111
100 - Philosophy	196	155
200 - Religion	115	84
300 - Social Sciences	1137	1313
400 - Languages	30	383
500 - Sciences	361	1981
600 - Technology	625	1116
700 - Arts	722	1076
800 - Literature	435	507
900 - Geography & History	1178	2989
16mm Film		1
AudioVisual Software	224	1003
Biography	621	(in 921's)
Braille		80
Audio Books		467
Easy		6753
E-Books	63	
Equipment	164	406
Fiction	3628	4689
ITV Manuals and Videos		161
Magazines	2140	3536
Paperbacks	(in Fiction)	1319
Professional	222	668
Reference	890	532
Spanish	39	(in 460's)
Story Collection	185	(in 808's)
Textbooks		25
Yearbooks	73	
TOTAL	**13183**	**29355**

AV Equipment Inventory	District	CHS	CE&MS
35mm cameras			1
CD tape recorders		5	28
Desktop projectors	4	1	5
Digital cameras		1	18
Digital video cameras		2	2
Document Camera		1	
DVD players			7
Flip cameras		1	2
Laminator	1	1	2
Listening center			20
Microfiche reader/printer		1	
Opaque projectors		1	2
Overheads		16	42
Record player			6
Screens, portable		2	3
Slide projectors		2	3
Tape recorders		5	26
Televisions		10	60
Tripods		2	2
VCP			3
VCR/DVD players		5	8
VCR/DVD recorder			1
VCR’s		1	18
Video cameras		1	
Video projectors			2
Web camera			1

Wireless Devices	District	CHS	CMS	CES
Laptops	7	27	81	30
Netbooks	3	32	10	0
iPads	10	43	30	29
iPods			6	
iPod Touch			6	42

Computer Lab Inventory	CHS	CMS	CES
Library 1064	15		
Library 1062	28		
Business 1061	26		
Business 1063	31		
Room 1081	25		
Library 146		28	
M129		29	
M133		25	
M108		33	
E42			31
Total	125	115	31

Non-Lab Computers	District	CHS	CMS	CES
Administration	16	9	4	4
Cafeteria	2	2	1	1
Classroom		8	20	18
Guidance		1	1	1
Library		2	7	
Other				0
Total	18	22	33	24

Peripheral Devices	District	CHS	CMS	CES
Document Cameras		1		
LCD projectors/DVD-VCR		23	18	16
Mimios		14	8	4
PA systems		1	1	1
Printers, networked	4	8	6	3
Scanners		11	4	2
Scantron		1	1	0

Server Inventory	Number	Operating System
Accounting/Payroll	1	2003
Backup	1	2008
Certification Server	1	2003
Content Filter	1	2003
E-mail	1	2008
File and Print	3	2008
Library	1	2003
Lunch	1	2008
Phone	1	Cisco Proprietary
PowerSchool	1	2008
Security	1	2000
Sharepoint	1	2003
Terminal Services	2	2008/2003
Tetradata	1	2003
Virus Protection	1	2003
Web	2	2003
SQL	1	2008
Cache	1	2008
Vmware Servers	6	Proprietary

Phone Inventory	Number
Cisco Desk Phones	124
Wireless phones	59
Conference phones	1

Maintenance/Support Agreements	Supplier
Accounting software	Skyward
Administrative software	PowerSchool
AV Repair	Don Pluskat
Cafeteria software	MealsPlus
Distance Learning	BadgerNet
Interlibrary Loan	Manitowoc-Calumet Library System
Internet Service Provider	Wiscnet
Library circulation/catalog	Follett Software Company - Destiny
Media Content	Discovery Education
Professional Development	Atomic Learning
Reading/testing	Renaissance Learning

Appendix F: Information and Technology Policies

2000 Policies approved by the School Board on August 23, 2010

2240-Controversial Issues in the Classroom
2416-Student Privacy and Parental Access to Information
2416.01-Parental/Police Access to Library Information
2521-Use and Care of Books and Materials
2531-Copyrighted Works

5000 Policies approved by the School Board on June 27, 2011

5780-Student/Parent Rights

7000 Policies approved by the School Board on June 28, 2010

7310-Disposition of Surplus Property
7510-Use of District Facilities
7530-Lending of District-Owned Equipment
7530.01-Wireless Communication Allowance and Staff Use of Wireless Communications Devices
7540-Computer Technology Network, and Internet Acceptable Use and Safety
7540.01-Technology Privacy
7540.02-District Web Page
7540.03-Internet/On-line Electronic Media Access Policy and Agreement
7540.04-E-mail Acceptable Use Policy
7540.05-Assistive Technology and Services
7540.06-Electronic Mail
7542-Network Access from Personally-Owned Computers and/or Other Web-Enabled Devices
7543-Remote Access to the District's Network (approved February 27, 2012)
7550-Joint Use of Facilities/Inter-Library Loans

9000 Policies approved by the School Board on June 27, 2011

9130-Public Requests, Suggestions or Complaints

2240 - CONTROVERSIAL ISSUES IN THE CLASSROOM

The Board of Education believes that the consideration of controversial issues has a legitimate place in the instructional program of the schools.

Properly introduced and conducted, the consideration of such issues can help students learn to identify important issues, explore fully and fairly all sides of an issue, weigh carefully the values and factors involved, and develop techniques for formulating and evaluating positions.

For purposes of this policy, a controversial issue is a topic likely to arouse both support and opposition in the community.

The Board will permit the introduction and proper educational use of controversial issues provided that their use in the instructional program:

A. is related to the instructional goals of the course of study and level of maturity of the students;

B. does not tend to indoctrinate or persuade students to a particular point of view;

C. encourages open-mindedness and is conducted in a spirit of scholarly inquiry.

Controversial issues related to the program may be initiated by the students themselves provided they are presented in the ordinary course of classroom instruction and it is not disruptive to the educational setting.

Controversial issues may not be initiated by a source outside the schools unless prior approval has been given by the principal. Issues pertaining to human growth and development, as defined by statute, are subject to 118.019, Wis. Stats.

When controversial issues have not been specified in the course of study, the Board will permit the instructional use of only those issues which have been approved by the District Administrator.

In the discussion of any controversial issue in the classroom or in the course of professional duties, a teacher may not express a personal opinion.

The Board recognizes that a course of study or certain instructional materials may contain content and/or activities that some parents find objectionable. If after careful, personal review of the program lessons and/or materials, a parent indicates to the school that either content or activities conflicts with his/her religious beliefs or value system, the school will honor a written request for his/her child to be excused from particular classes for specified reasons. The student, however, will not be excused from participating in the course or activities mandated by the State and will be provided alternative learning activities during times of parent requested absences.

The District Administrator shall develop administrative guidelines for dealing with controversial issues.

(See also Policy **3310** – Freedom of Speech in Noninstructional Settings)
Garcetti v. Ceballos, 126 S. Ct. 1951 (2006)

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2416 - STUDENT PRIVACY AND PARENTAL ACCESS TO INFORMATION

The Board of Education respects the privacy rights of parents and their children. No student shall be required, as a part of the school program or the District's curriculum, without prior written consent of the student (if an adult, or an emancipated minor) or, if an unemancipated minor, his/her parents, to submit to or participate in any survey, analysis, or evaluation that reveals information concerning:

A. political affiliations or beliefs of the student or his/her parents;

B. mental or psychological problems of the student or his/her family;

C. sex behavior or attitudes;

D. illegal, anti-social, self-incriminating or demeaning behavior;

E. critical appraisals of other individuals with whom respondents have close family relationships;

F. legally recognized privileged and analogous relationships, such as those of lawyers, physicians, and ministers;

G. religious practices, affiliations, or beliefs of the student or his/her parents; or

H. income (other than that required by law to determine eligibility for participation in a program or for receiving financial assistance under such a program).

The District Administrator shall ensure that procedures are established whereby parents may inspect any materials created by a third party used in conjunction with any such survey, analysis, or evaluation before the survey/evaluation is administered or distributed by the school to the student. The parent will have access to the survey/evaluation within a reasonable period of time after the request is received by the building principal.

Consistent with parental rights, the Board directs building and program administrators to:

A. notify parents in writing of any surveys, analyses, or evaluations, which may reveal any of the information, as identified in A-H above, in a timely manner, and which allows interested parties to request an opportunity to inspect the survey, analysis, or evaluation; and the administrator to arrange for inspection prior to initiating the activity with students;

B. allow the parents the option of excluding their student from the activity;

C. report collected data in a summarized fashion which does not permit one to make a connection between the data and individual students or small groups of students;

D. treat information as identified in A-H above as any other confidential information in accordance with Policy **8350**.

Additionally, parents have the right to inspect, upon request, any instructional material used as part of the educational curriculum of the student. The parent will have access to the instructional material within a reasonable period of time after the request is received by the building principal. The term instructional material means instructional content that is provided to a student, regardless of its format, including printed and representational materials, audio-visual materials, and materials in electronic or digital formats (such as materials accessible through the Internet). The term does not include academic tests or assessments.

For the privacy of students whose parents request that they not take part in the survey, arrangements will be made prior to the time period when the survey will be given for the student(s) to go to a supervised location where, under the supervision of a staff member, the student will be provided with an alternate activity.

The Board will not allow the collection, disclosure, or use of personal information collected from students for the purpose of marketing or for selling that information (or otherwise providing that information to others for that purpose).

The District Administrator is directed to provide notice directly to parents of students enrolled in the District of the substantive content of this policy at least annually at the beginning of the school year, and within a reasonable period of time after any substantive change in this policy. In addition, the District Administrator is directed to notify parents of students in the District, at least annually at the beginning of the school year, of the specific or approximate dates during the school year when the administration of any survey by a third party that contains one or more of the items described in A though H above are scheduled or expected to be scheduled.

For purposes of this policy, the term "parent" includes a legal guardian or other person standing in loco parentis (such as grandparent or stepparent with whom the child lives, or a person who is legally responsible for the welfare of the child).

20 U.S.C. 1232(a)(b)(g)(h)

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2416.01 - PARENTAL/POLICE ACCESS TO LIBRARY INFORMATION

The Board of Education respects the privacy rights of parents and their children. The Board is also committed to ensuring that parents are fully informed about the instructional material, resources and services students choose to use at the District's libraries.

Parents or guardians of a student under the age of sixteen (16) have the right to review, upon request (Form 2416.01 F1), library records relating to the use of the library's documents or other materials, resources or services by the student.

Upon request from a law enforcement officer investigating criminal conduct alleged to have occurred at a school library, the library shall disclose to the officer records produced by a surveillance device under the control of the library, that are pertinent to the alleged criminal conduct.

Sec. 43.30 (1m), Wis. Stats.
43.30(5), Wis. Stats.

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2521 - USE AND CARE OF BOOKS AND MATERIALS

Instruction of Materials and Services

The District does not discriminate on the basis of any characteristic protected under State or Federal law including, but not limited to, age, sex, race, color, religion, national origin, ancestry, creed, pregnancy, marital status, parental status, sexual orientation, or physical, mental, emotional, or learning disability in its selection of instructional materials and equipment.

Objectives

The primary objective of the Chilton Public Schools is to implement, enrich, and support education programs of the school.

The responsibility of the school is:

A. To provide materials which will support and enrich the curriculum, taking into consideration the varied interests, abilities, and maturity levels of the pupils being served.

B. To provide materials that will stimulate growth in factual knowledge, literacy appreciation, values, and positive ethical standards upon which our country was formulated.

C. To provide a background of information which will enable pupils to make intelligent judgments in their current and future daily life predicated upon the philosophy that individuals have an obligation to society as a whole.

D. To provide materials on opposing sides of controversial issues so that young citizens may develop under the guidance of the parents, the church, the community, and teacher, the practice of critical analysis of all media.

E. To provide materials representative of the many religious, ethnic, and cultural groups and their contributions to our American Heritage.

F. To place principle above personal opinion and reason above prejudice in the selection of materials of the highest quality in order to assure a comprehensive collection appropriate for the users.

Responsibility for Selection of Materials

The responsibility for the selection of instructional materials is delegated to the professionally trained personnel employed by the school system. Although selection of materials will involve teachers, media specialists, guidance personnel, and principals, the responsibility for coordinating selections and recommendations rests with the Director of Curriculum and Instruction.

Each student shall be responsible for the appearance and safekeeping of books assigned to him/her. Pupils shall be fined for damage to books and shall pay the full replacement cost for books which are ruined or lost.

Teachers are responsible for texts in their charge. Each teacher shall keep a record of all texts and report losses and charges to pupils for books not returned as a condition of their employment.

Cost of materials may be charged for materials used in those activities beyond the basic curriculum in which a student elects to participate, particularly in shop activities where the product becomes the property of the student.

Criteria for Instruction Materials Selection

Needs of the individual school based on knowledge of the curriculum and of the existing collection are given first consideration. Print and non-print materials are considered for purchase on the basis of:

A. Overall purpose
B. Timeliness or permanence
C. Importance of the subject matter
D. Quality of the writing/production
E. Total value, impact, and intent of the author/artist/producer
F. Readability and popular appeal
G. Authoritativeness
H. Reputation
I. Format and price

Sex and Profanity

The facts of sexual incidents or profanity appearing in a book shall not automatically disqualify it. Rather the decision should be made on the basis of whether the book presents life in its true proportions, whether circumstances are realistically dealt with, and whether the book is of literary value. Factual material of an educational nature on the reading level of the students or for teacher use should be included in the library collection.

Religion

Material on religious subjects should be available, and should be factual, unbiased, and broadly representative.

Political Ideologies

Factual material on an appropriate reading level should be available concerning those ideologies which exert strong influence on government, education, or any other phase of common life.

118.13, 120.13(5) Wis. Stats.
P.I. 9, 41, Wis. Adm. Code
Fourteenth Amendment, U.S. Constitution
20 U.S.C. Section 1681, Title IX of Education Amendments Act
20 U.S.C. Section 1701 et seq., Equal Educational Opportunities Act of 1974
29 U.S.C. Section 794, Rehabilitation Act of 1973
42 U.S.C. Section 2000 et seq., Civil Rights Act of 1964
42 U.S.C. Section 12101 et seq., The Americans with Disabilities Act of 1990
Vocational Education Program Guidelines for Eliminating Discrimination and Denial of Services, Department of Education, Office of Civil Rights, 1979

2531 - COPYRIGHTED WORKS

The Board of Education directs its staff and students to use copyrighted works only to the extent that the law permits. The Board recognizes that Federal law applies to public school districts and the staff and students must, therefore, avoid acts of copyright infringement under penalty of law.

In order to help the staff and students abide by the laws set forth in Title 17 of the United States Code, the Board directs the District Administrator to provide administrative guidelines regarding the copying and distribution of copyrighted materials for instructional purposes and for the appropriate use of copyrighted materials on the Board's web site.

Because the Board hosts a web site and stores information on it at the direction of users, it is classified as an on-line service provider for copyright purposes. In order to limit the Board's liability risk relating to material/information residing, at the direction of a user, on its system or network, the Board directs the District Administrator to annually appoint an individual as the agent to receive notification of claimed infringement. A link to the agent's name, mailing address, telephone number, fax number, and e-mail address shall appear on the home page of the Board's web site. Such contact information, along with the appropriate filing fee, shall also be provided to the Copyright Office of the Library of Congress.

Additionally, the agent's name, mailing address, telephone number, fax number, and e-mail address shall be included in the Student Handbook for each school.

The agent shall be responsible for investigating and responding to any complaints.

17 U.S.C. 101 et seq.

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5780 - STUDENT/PARENT RIGHTS

The Board of Education recognizes that students possess not only the right to an education but the rights of citizenship as well.

In providing students the opportunity for an education to which they are entitled, the District shall attempt to offer nurture, counsel, and custodial care appropriate to their age and maturity. At the same time the Board recognizes that no student may be deprived of the basic right to equal access to the educational program and his/her constitutional right to due process and free expression and association as appropriate for the school environment.

Attendant to the rights afforded to each student, however, are certain responsibilities, which include respect for the rights of others, obedience to properly constituted school authority, and compliance with the guidelines and rules of the District.

The Board realizes that as students differ in age and maturity, so they differ in ability to handle both the rights of citizens and the concomitant responsibilities. The exercise of each right shall be granted, therefore, with due regard for the degree of responsibility possessed by the student and the student's need for the continuing guidance and control of those responsible for his/her education.

Since a student who has reached the age of majority possesses the full rights of an adult, s/he may authorize those school matters previously handled by his/her parents, but s/he also assumes the responsibility for his/her performance in school, attendance, and compliance with the guidelines and District rules.

Administrators, counselors, and teachers shall not provide a supporting affidavit for students who have petitioned the court to grant them the status of emancipated minors unless prior approval has been obtained from the District Administrator.

Parents also have rights in the school system to know about their student’s educational experience. Specific rights are listed in topic areas of these policies.

In addition, parents have the right to inspect any instructional materials used as part of the educational curriculum for their student. Instructional materials means instructional content, regardless of format, that is provided to the student, including printed or representational materials, audio-visual materials, and materials available in electronic or digital formats (such as materials accessible through the Internet). Instructional material does not include academic tests or academic assessments.

The District Administrator shall, in consultation with parents, develop a procedure addressing the rights of parents and procedures to assure timely response to parental requests to review instructional material. The procedure shall also address reasonable notification to parents and students of their rights to review these materials. See AG 9130A and Form 9130 F3.

This policy shall not supercede any rights under the Family Education Rights and Privacy Act.

20 U.S.C. 1232h

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7310 - DISPOSITION OF SURPLUS PROPERTY

The Board of Education requires the District Administrator to review the property of the District periodically and to dispose of that material and equipment which is no longer usable in accordance with the terms of this policy.

A. **Instructional Material**

The District shall review instructional materials (i.e. textbooks, library books, manuals, support materials, etc.) periodically to determine the relevance of such materials to the present world and current instructional programs. The following criteria will be used to review instructional materials for redistribution and possible disposal:

1. concepts or content that do not support the current goals of the curriculum
2. information that may not be current
3. worn beyond salvage

B. **Equipment**

The District shall inspect the equipment used in the instructional program periodically, to determine the condition and usability of such equipment in the current educational program. Should the equipment be deemed no longer serviceable or usable, the following criteria will be used to determine possible disposal:

1. repair parts for the equipment no longer readily available
2. repair records indicate the equipment has no usable life remaining
3. obsolete and no longer contributing to the educational program
4. some potential for sale at a school auction
5. creates a safety or environmental hazard

C. **Disposition**

The District Administrator is authorized to dispose of obsolete instructional and other property by selling it to the highest bidder, by donation to appropriate parties, or by proper waste removal. Disposal of surplus property purchased with Federal funds shall be disposed of in accordance with Federal guidelines.

120.10(12), Wis. Stats.

7510 - USE OF DISTRICT FACILITIES

The school facilities shall be reserved for their primary purpose of supporting the educational program of the youth in the District. The Board of Education recognizes the need of constituents residing within the boundaries of the School District to use school sites and facilities for educational, recreational, and cultural activities. Therefore, the Board will make available the use of those properties to certain organizations for approved activities, while bearing in mind its obligation as the governing body of the District and having sole responsibility for the protection, operation, maintenance and administration of all school properties.

Primary injury and personal liability resides with each participant; the District assumes no responsibility for lost articles.

General Provisions

A. The School District's educational needs always have priority over other requests.

B. The Board of Education reserves the right to alter any portion of this policy or procedure at any time and reserve the right to judge the eligibility of each organization individually as they request the use of school facilities and/or sites.

C. School equipment, which has been approved for usage will not be removed from any school building by anyone without permission of the District Administrator and with the knowledge of the Building Principal.

D. Application for building usage by a person or organization will be made to the District Administrator.

   The application form shall be completed in its entirety with special attention being given to accurate and appropriate identification of designated supervisors and/or responsible chaperones.

   In the event any facility or facilities previously engaged by a person or organization and formally approved by the District Administrator's action should be deemed needed for school purposes or activities on the date previously granted, school function shall take precedence and another time will be scheduled for the organization or individual's event.

E. Each organization or individual contracting to use District facilities will be held responsible for proper treatment of equipment and building and for the proper conduct of spectators and/or participants.

F. Activities staged and operated in a District building shall not be permitted unless a custodian, authorized school employee or a non-employee approved by the District Administrator is present at all times while people are present in the building. This individual shall be responsive for opening, closing, lighting, security and cleanliness of the building and will provide necessary custodial services for persons within the building. This individual will not serve as a supervisor for the organization using the building unless express permission is given by the District Administrator for this purpose.

   The applicant and sponsoring organization using the facility will be responsible for all property damage and claims done to the building and/or grounds as denoted in the attached signed agreement.

G. All expenses incurred for the use of the facilities shall be bore by the user in accordance with the fee schedule and notations made on the application document.

H. When District gymnasiums are to be used for physical activities, only persons with approved rubber-soled shoes are allowed on the gym floors. Failure to comply with this stipulation could obligate the user to pay all costs incurred for returning the floor condition to proper state.

   Specialized instructional supplies and equipment are not included with the rental of the building. It is not the policy of the District to rent the equipment such as projectors, screens, athletic equipment or towels, etc.

   Rental of the District gymnasiums will include the gymnasium proper and the adjacent use of locker rooms and showers. Depending upon the activity being scheduled, the District Administrator has the

prerogative of insisting that appropriate locker attendants be utilized.

I. Use of or the sale of intoxicants and tobacco products will not be permitted on school property at any time or under any circumstance. Users who violate this segment of the policy shall have future applications for building/facility usage denied and legal intervention.

   Food and non-alcoholic beverages may be consumed only in specific areas approved by the District Administration.

J. The District Administrator may exempt payment fees. Organizations as boy scouts, campfire girls, and the PTO, provided the exemption of fees is not applicable to all non-profit organizations.

K. The District Administrator reserves the right to deny the use of the building to any organization or activity which in his/her opinion would not be in the best interest of the school. All requests for use of the building should be directed to the District Administrator.

L. The Board or its designee reserves the right to adjust or suspend the rate schedule when mitigating circumstances of individual applicants indicate such modification is in order.

M. The Board establishes the following guideline for use of District facilities for students involved in after-school activities:

   Wednesday evening, during the school year, is designated religious affiliation (church) night and no activities shall be scheduled after 6:00 p.m. in district buildings. Exceptions include, but are not limited to: W.I.A.A. scheduled activities (and practices), special events such as Prom, Homecoming, etc., band/choir participation or other activities approved by the Building Principal in accordance with the Building Usage Policy.

Insurance Coverage

The School District's public liability insurance does not provide protection to the activities and property of any outside organization permitted to use the facilities of the School District. Therefore, the School District is not responsible for any bodily injuries or damage to or loss of property arising out of the activities of any group that is not sponsored by the School District.

It is, therefore, required that the facility users obtain limited insurance to cover their particular liability and potential loss due to damage of District facilities and equipment; approved users will be held responsible for all loss. A copy of the certificate of liability insurance or special events policy may be required by the District office before action on the building usage request is made.

School equipment, which has been approved for usage will not be removed from any school building by anyone without permission of the District Administrator and with the knowledge of the Building Principal.

Each organization or individual contracting to use District facilities will be held responsible for proper treatment of equipment and building and for the proper conduct of spectators and/or participants.

Activities staged and operated in a District building shall not be permitted unless a custodian authorized school employee or a non-employee approved by the District Administrator is present at all times while people are present in the building. This individual shall be responsible for opening, closing, lighting, security, and cleanliness of the building and will provide necessary custodial services for persons within the building. This individual will not serve as a supervisor for the organization using the building unless express permission is given by the District Administrator for this purpose.

The applicant and sponsoring organization using the facility will be responsible for all property damage and claims done to the building and/or grounds as denoted in the attached signed agreement.

All expenses incurred for the use of the facilities shall be bore by the user in accordance with the fee schedule and notations made on the application document.

When District gymnasiums are to be used for physical activities, only persons with approved rubber-soled shoes are allowed on the gym floors. Failure to comply with this stipulation could obligate the user to pay all costs incurred for returning the floor condition to its proper state.

Specialized instructional supplies and equipment are not included with the rental of the building. It is not the policy of the district to rent equipment such as projectors, screens, athletic equipment or towels, etc.

Use of or the sale of intoxicants will not be permitted on school grounds at any time or under any circumstances.

Smoking will not be allowed on school grounds or in any school facility except as specifically arranged with the District Administrator.

Users who fail to comply with the terms and conditions identified herein, policies of the School District of Chilton, directives of the District administrative staff shall (1) forfeit this usage agreement resulting in the termination of the scheduled event and (2) noncompliance may jeopardize future approval of application(s) for building/facility usage requests by said individuals and/or organization. In addition, legal intervention and remedy may be initiated by the district and/or its agent(s).

Fees

A. The Board of Education, following receipt of recommendations, shall establish the District fee schedule. All users shall be required to assume full cost for custodial services provided. The custodial fee shall be based on the individual custodian's pay scale and will include overtime pay where applicable, social security payments, and other fringe payments.

B. In addition to actual custodial fees, the following fixed charges will be assessed for other operational costs:

   1. Where children in the School District are involved in any activity that does not conflict with statutory limitations on school building use or scheduled school activities, if the event is open to all and no admission is charged, there will be no fee for the use of the facility.

   2. Pool

      Groups requesting the use of the swimming pool shall make application to the Board of Education. The rental fee shall be in accordance with the District's fee schedule plus any fees for employment of a minimum of one (1) lifeguard, one (1) chaperon/supervisor at the entrance to the pool and one (1) male and female locker room attendant. Additional supervisory personnel can be required at the discretion of the District Administration.

No liability shall attach to this District, any employee, officer, or member of this District specifically as a consequence of permitting access to these facilities.

120.13(17), Wis. Stats.

7530 - LENDING OF DISTRICT-OWNED EQUIPMENT

The Board of Education believes that District-owned equipment is a valuable resource which may be loaned for community use under certain conditions only, provided that such use does not infringe on the original and necessary purpose of the equipment or interfere with the educational program of the District.

The Board may lend specific items of equipment on the written request of the user and approval granted by the District Administrator.

The user of District-owned equipment shall be fully liable for any damage or loss occurring to the equipment during the period of its use, and shall be responsible for its safe return.

District equipment may be removed from District property by students or staff members only when such equipment is necessary to accomplish tasks arising from their school or job responsibilities. The consent of the principal or District Administrator is required for such removal.

Personal use of District equipment or facilities by staff or students may be permitted by the District Administrator's.

7530.01 - WIRELESS COMMUNICATION ALLOWANCE AND STAFF USE OF WIRELESS COMMUNICATIONS DEVICES

Eligibility for Wireless Communication Allowance

Wireless communication devices ("WCDs") (i.e. cellular and wireless telephones, pager/beepers, personal digital assistants (PDAs), Blackberries/Smartphones, WiFi-enabled or broadband access devices, etc.) enable communication whenever a situation arises necessitating immediate contact, regardless of the person's location at the time. Therefore, the District Administrator and administrators who meet one or more of the following criteria are required as a condition of employment to own a WCD and obtain an appropriate service plan so that the WCD is available for use for business-related communications:

A. their jobs require them to spend a considerable amount of time outside of their assigned office or work area during normal working hours and have regular access to telephone and/or Internet connections while outside their office or assigned work area;

B. their jobs require them to be accessible outside of scheduled or normal working hours or to be contacted and respond in the event of an emergency; or

C. their jobs consistently require timely and business critical two (2) way communication for which there is no reasonable alternative technology; (This is not intended to include occasional, incidental access or purely voluntary access such as checking e-mail from home.)

D. the employee is required to be contacted on a regular basis outside normal work hours; or

E. the employee's job requirements include critical District-wide decision-making.

Administrators who are required to have a WCD as a condition of their employment shall receive a monthly wireless communication allowance ("allowance"), up to an amount approved annually by the Board to compensate them for the costs associated with acquiring and utilizing a WCD for business purposes. Additionally, other staff members who believe that they meet the above-identified criteria may apply for an allowance.

Amount of the Allowance

The allowance shall consist of a monthly allowance of up to a specific dollar amount for wireless telephone service.

The allowance is not intended to compensate the employee's dollar-for-dollar cost for wireless service. Under no circumstances will the monthly allowance be more than the cost of the employee's monthly service plan for his/her WCD.

The allowance does not constitute an increase to base pay, and will not be included in the calculation of percentage increases to base pay due to annual raises, job upgrades or benefits based on a percentage of salary, etc. The Board will pay only the Board-approved allowance even if actual monthly costs exceed the allowance. If the amount of the allowance needs to be changed because of documented business purpose, the employee should notify the District Administrator by submitting a new Wireless Communication Allowance Request Form.

No allowance will be paid when the employee is on an unpaid leave status, or is on an extended paid leave during which timely, business-essential communications are not likely to be necessary.

The District Administrator should use knowledge of each employees' duties (e.g. the projected number of minutes of monthly business-related calls, and whether the employee requires Internet/data service) and budget considerations to determine the amount of monthly allowance to recommend to the Board for each employee. In determining the amount of the allowance to recommend to the Board, the District Administrator may take into consideration the cost of the basic equipment, whether Internet/data service is needed, and the cost of the employee's monthly wireless service plan.

In order to continue to receive the allowance, administrators are required to answer all business-related calls on his/her WCD and promptly respond to any messages.

Allowance is Considered Taxable Income

Staff members who receive an allowance are not required to submit a log documenting their business-related use of the WCD; however, they will be informed that the allowance is considered additional compensation for income tax purposes (i.e. the allowance will be paid through the District's payroll system as taxable income and appropriate payroll taxes on the amount of the allowance will be withheld from the employee's paycheck, and the amount of the allowance paid during the calendar year will be included in the wages line on the staff members' year-end W-2 statements). For determination of individual taxability, employees should check with their tax advisor.

Employee's Responsibilities

The employee is responsible for choosing his/her WCD, the voice and/or data plan, and the wireless service provider. Since the WCD is the property of the employee, the WCD may be used for personal calls (see below concerning the making of personal calls during work time) and be combined or enhanced with other personal plans (i.e. the employee may also, at his/her own expense, add extra services or equipment features, as desired). The employee is responsible for paying all monthly service charges in full and on time. The Board does not accept any liability for claims, charges, or disputes between the service provider and the staff member. Because the employee is personally responsible for the WCD, any replacement for loss or damage will be at the expense of the employee. Such replacement or repair must be completed promptly and the District Administrator must be notified if the employee will not be available by their WCD for a period of time.

Employees should contact the carrier through which they purchased their WCD and purchase their wireless service for support.

Changing or Ending a Wireless Service Contract Early

If prior to the end of a wireless service contract, a personal decision by the employee results in the need to end or change the WCD contract, the employee will bear the costs of any fees associated with the change or cancellation.

If prior to the end of a wireless service contract, the employee's misconduct, or misuse of the WCD, results in the need to end or change the WCD contract, the employee will bear the costs of any fees associated with the change or cancellation.

If prior to the end of a wireless service contract, the Board determines to reduce or cancel (unrelated to employee misconduct) the employee's monthly allowance, the Board will bear the cost of any fees associated with the change or cancellation. For example, if the employee is reassigned and/or his/her duties are changed, and the WCD is no longer needed for business purposes, if the employee does not want to retain the current contract, changes or cancellation fees will be reimbursed by the Board.

When selecting the duration of his/her wireless service contract, the employee should take into consideration the length of his/her Board-approved employment contract and not select a duration of the wireless service contract that exceeds the employment contract. If the employee is nonrenewed or voluntarily resigns while the wireless service contract is still in effect, the Board will not be responsible for any fees associated with the employee's decision to subsequently change or cancel the contract.

Once the allowance is given to the employee to purchase a device, the WCD remains the employee's property. However, upon termination, nonrenewal or resignation, the Board will immediately discontinue the monthly allowance.

Safe Use of Wireless Communications Devices

Employee safety is a priority of the Board, and responsible use of WCDs includes safe use.

Employees are responsible for operating Board-owned vehicles and potentially hazardous equipment in a safe and prudent manner, and therefore, employees are prohibited from using personal WCDs while operating such vehicles or equipment. In the interest of safety for both Board employees and other drivers, employees are required to comply with all applicable laws while driving.

Duty to Maintain Confidentiality of Student Personally Identifiable Information - Public and Student Record Requirements

Employees are subject to all applicable policies and guidelines pertaining to protection of the security, integrity and availability of the data stored on their WCDs.

Wireless communications, including calls, text messages, instant messages, and e-mails sent from WCDs, may not be secure. Therefore, employees should use discretion in relaying confidential information, particularly as it relates to students.

Additionally, wireless communications, including text messages, instant messages and e-mails sent and/or received by a public employee or school official using his/her personal WCD may constitute public records if the content of the message concerns District business, or an education record if the content includes personally identifiable information about a student. Wireless communications that are public records are subject to retention and disclosure, upon request, in accordance with Policy **8310** – Public Records. Wireless communications that are student records should be maintained pursuant to Policy **8330** – Students Records. Finally, wireless communications and other electronically stored information (ESI) stored on the staff member's personal WCD may be subject to a Litigation Hold pursuant to Policy **8315** – Information Management. Staff are required to comply with District requests to produce copies of wireless communications in their possession that are either public records or education records, or that constitute ESI that is subject to a Litigation Hold.

Except in emergency situations, employees are prohibited from using WCDs to capture, record or transmit the words (i.e. audio) and/or images (i.e. pictures/video) of any student, staff member or other person in the school or while attending a school-related activity, without express prior notice and explicit consent for the capture, recording or transmission of such words or images. Using a WCD to take or transmit audio and/or pictures/video of an individual without his/her consent is considered an invasion of privacy and is not permitted, unless authorized by the building principal or District Administrator.

Privacy Issues

The use of WCDs that contain built-in cameras (i.e. devices that take still or motion pictures, whether in a digital or other format) is prohibited in locker rooms, classrooms, bathrooms, and/or swimming pool.

Personal Use of WCDs While at Work

During work hours personal communications made or received, regardless of whether on a WCD, or a regular telephone or network computer can interfere with employee productivity and distract others. Employees are expected to use discretion in using WCDs while at work for personal business. Employees are asked to limit personal communications to breaks and lunch periods, and to inform friends and family members of the Board's policy in this regard.

At no time may any WCD be utilized by an employee in a way that might reasonably create in the mind of another person an impression of being threatened, humiliated, harassed, embarrassed or intimidated.

Potential Disciplinary Action/Termination of the Allowance

Violation of this policy may constitute just cause for disciplinary action up to and including termination. Use of a WCD in any manner contrary to local, State or Federal laws will constitute misuse, and will result in immediate termination of the allowance.

Employee Use of Board-Owned WCDs

The District will provide Board-owned WCDs to certain employees who require specific equipment or similar technology to perform District functions (e.g. school safety, physical plant maintenance, etc.) and never expect to use these devices for personal use. The District Administrator must approve such exceptions.

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7540 - COMPUTER TECHNOLOGY NETWORK, AND INTERNET ACCEPTABLE USE AND SAFETY

The Board of Education is committed to the effective use of technology to both enhance the quality of student learning and the efficiency of District operations. However, the use of the District's network and technology resources by students is a privilege, not a right.

The District Administrator shall develop and implement a written District Technology Procedure (DTP). The DTP will provide for both the acquisition of technology, and guidance to staff and students concerning making safe, appropriate and ethical use of the District's network(s). The DTP shall also inform both staff and students about disciplinary actions that will be taken if Board technology and/or networks are abused in any way or used in an illegal or unethical manner.

Further, safeguards shall be established so that the Board's investment in both hardware and software achieves the benefits of technology and inhibits negative side effects. Accordingly, students shall be educated about appropriate online behavior including, but not limited to, using social media to interact with others online; interacting with other individuals in chat rooms or on blogs; and, recognizing what constitutes cyberbullying, understanding cyberbullying is a violation of District policy, and learning appropriate responses if they are victims of cyberbullying.

Social media shall be defined as internet-based applications (such as Facebook, MySpace, Twitter, etc.) that turn communication into interactive dialogue between users. The Board authorizes the instructional staff to access social media from the District's network, provided such access has an educational purpose for which the instructional staff member has the prior approval of the Principal.

However, personal access and use of social media, blogs, or chat rooms from the District's network is expressly prohibited and shall subject students and staff members to discipline in accordance with Board policy.

The Board authorizes the access and use of social media from the District's network to increase awareness of District programs and activities, as well as to promote achievements of staff and students, provided such access and use is approved in advance by the District Administrator.

The District Administrator shall annually review the DTP to determine the effectiveness of the plan in meeting its objectives. A report on any DTP changes, amendments, or revisions to it shall be presented by the District Administrator for action by the Board.

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7540.01 - TECHNOLOGY PRIVACY

The Board of Education recognizes its staff members' right to privacy in their personal lives. This policy serves to inform staff members of the Board's position with respect to staff-member privacy in the educational and workplace setting and to protect the District's interests.

All computers, telephone systems, electronic mail systems, and voice mail systems are the District's property and are to be used primarily for business purposes. The Board retains the right to access and review all electronic and voice mail, computer files, data bases, and any other electronic transmissions contained in or used in conjunction with the District's computer system, telephone system, electronic mail system, and voice mail system. Staff members should have no expectation that any information contained on such systems is confidential or private.

Review of such information may be done by the District with or without notice or the staff member's knowledge. The use of passwords does not guarantee confidentiality, and the District retains the right to access information in spite of a password. All passwords or security codes must be registered with the Directory of Technology.

Privacy in communication over the Internet and the Network is not guaranteed. To ensure compliance with the guidelines, the District reserves the right to monitor, review, and inspect any directories, files, and/or messages residing on or sent using the District's computers/network. Messages relating to or in support of illegal activities will be reported to the appropriate authorities.

The District has software and systems in place that monitor and record all Internet, World Wide Web, and computer usage. The District wants users to be aware that security systems are capable of recording, for each and every user, each World Wide Web site visit, the amount of time spent actively using the World Wide Web, each chat, news group access, e-mail message, and every file transfer into and out of our internal networks to the Internet. No District student or employee should have any expectation of privacy as to his/her Internet or World Wide Web usage, or the privacy of any electronic mail message, file, download, note, or other data stored on or transmitted or received through any District computing facility. The District reserves the right to review computing activity and analyze usage patterns, and may choose to publicize this data to assure that the District's computing resources are devoted to maintaining the highest standards of educational benefit and employee productivity. Messages relating to or in support of illegal activities will be reported to the appropriate authorities. The use of passwords does not guarantee confidentiality, and the District retains the right to access information in spite of a password.

Computers, electronic mail, and voice mail are to be used for business and educational purposes. Personal messages via District-owned technology should be limited in accordance with the District Administrator's guidelines. Staff members are encouraged to keep their personal records and personal business at home.

Because the District's computer and voice mail systems are to be used primarily for business and educational purposes, staff members are prohibited from sending offensive, discriminatory, or harassing computer, electronic, or voice mail messages.

The Board of Education is interested in District resources being properly used. Review of computer files, electronic mail, and voice mail will only be done in the ordinary course of business and will be motivated by a legitimate business reason. If a staff member's personal information is discovered, the contents of such discovery will not be reviewed by the Board, except to the extent necessary to determine if the District's interests have been compromised. Any information discovered will be limited to those who have a specific need to know that information.

The administrators and supervisory staff members authorized by the District Administrator have the authority to search and access information electronically.

All computers and any information or software contained therein are property of the District. Staff members shall not copy, delete, or remove any information or data contained on the District's computers/servers without the express permission of the District Administrator or designee or communicate any such information to unauthorized individuals. In addition, staff members may not copy software on any District computer and may not bring software from outside sources for use on District equipment without the prior approval of the Director of Instruction. Such pre-approval will include a review of any copyright infringements or virus problems associated with such outside software.

In accordance with State law, any staff member who sends an electronic message with the intent to frighten, intimidate, threaten, or harass another person or sends a message containing lewd, obscene, or profane language will be subject to appropriate discipline by the District and may be found guilty of a Class D misdemeanor.

947.0125 Wis. Stats.

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7540.02 - DISTRICT WEB PAGE

The Board of Education authorizes staff members to create web pages/sites that will be hosted on the Board's servers and published on the Internet. The web pages/sites must reflect the professional image of the District, its employees, and students. The content of all pages must be consistent with the Board's Mission Statement and staff-created web pages/sites are subject to prior review and approval of the District Administrator.

The purpose of web pages/sites hosted on the Board's servers is to educate, inform, and communicate. The following criteria shall be used to guide the development of such web pages/sites:

A. **Educate**

Content provided in the web site should be suitable for and usable by students and teachers to support the curriculum and the Board's Objectives as listed in the Board's Strategic Plan.

B. **Inform**

Content may inform the community about the school, teachers, students, or departments, including information about curriculum, events, class projects, student activities, and departmental policies.

C. **Communicate**

Content may provide an avenue to communicate with the community.

The information contained on the Board's web site should reflect and support the Board's Mission Statement, Educational Philosophy, and the School Improvement Process.

When the content includes a photograph or information relating to a student, the Board will abide by the provisions of Policy **8330** - Student Records.

All links included on web pages must also meet the above criteria and comply with State and Federal law (e.g. copyright law, Children's Internet Protection Act).

Under no circumstances is a web site to be used for commercial purposes, advertising, political lobbying, or to provide financial gains for any individual. Included in this prohibition is the fact no web pages contained on the District's web site may: (1) include statements or other items that support or oppose a candidate for public office, the investigation, prosecution or recall of a public official, or passage of a tax levy or bond issue; (2) link to a web site of another organization if the other web site includes such a message; or (3) communicate information that supports or opposes any labor organization or any action by, on behalf of, or against any labor organization. Nothing in this paragraph shall prevent the Board from linking on the District's web site to recognized news/media outlets (e.g., local newspapers' web sites, local television stations' web sites).

Under no circumstances is a staff member-created web pages/site, including personal web pages/sites, to be used to post-student progress reports, grades, class assignments, or any other similar class-related material. The Board maintains its own web site (e.g. PowerGrade) that employees are required to use for the purpose of conveying information to students and/or parents.

Staff members are prohibited from requiring students to go to the staff member's personal web pages/sites (including, but not limited to, their Facebook or MySpace pages) to check grades, obtain class assignments and/or class-related materials, and/or to turn in assignments.

If a staff member creates a web page/site related to his/her class, it must be hosted on the Board's server.

Unless the web page/site contains student personally identifiable information, Board web sites that are created staff members that are posted on the Internet should not be password protected or otherwise contain restricted access features, whereby only employees, student(s), or other limited groups of people can access the site. Community members, parents, employees, staff, students, and other web site users will generally be given full access to the sites created pursuant to this policy.

Pages should reflect an understanding that both internal and external audiences will be viewing the information.

School web sites must be located on Board-affiliated servers.

The Board retains all proprietary rights to the design of web sites and/or pages that are hosted on the Board's servers, absent written agreement to the contrary.

Students who want their class work to be displayed on the Board's web site must have written permission from their parent or guardian and expressly license its display without cost to the Board.

Prior written permission by a student's parent or guardian is necessary for a student to be identified by name on the Board's web site.

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7540.03 - INTERNET/ON-LINE ELECTRONIC MEDIA ACCESS POLICY AND AGREEMENT (ACCESS USE POLICY)

INTRODUCTION

Internet access is now available to students and teachers of the Chilton Public Schools. The power of electronic networks and resources is transforming the educational culture from one of isolation to one of connectivity. The Internet, an electronic highway, connects computer networks from around the world by using common computer communication protocol to transmit data. We view the telecommunication skills necessary to access and retrieve educational information from Internet sources to be vital skills that will be integrated in all of our K-12 curriculums over time. As students and staff utilize the Internet and its vast resources, it is essential that each user recognize his/her responsibility in having access to vast services, sites and people. The user is ultimately responsible for his/her actions in accessing network service, and for adhering to district policies, procedures and guidelines.

With access to computers and people all over the world also comes the availability of material that may not be considered to be of educational value in the context of the school setting. The Chilton Public Schools has taken precautions to restrict access to controversial materials through use of security programs, supervision, purposeful educational use applications-license by students, a parent required signature on student access application, and age appropriate training in acceptable school use. However, on a global network it is impossible to control all materials, and an industrious user who consciously searches may discover controversial material. The Chilton Public Schools believe that the sound educational and valuable information and communication on the Internet far outweighs the possibility that a user may procure materials not consistent with the educational goals of the district. Our focus is in providing individual and group users with the understanding and skills needed to use the Internet in ways appropriate to their educational needs.

Please be aware, the Chilton Public School District retains the right to monitor file server space and review material on user accounts. That is, privacy is not guaranteed. The license/account holder uses the Internet at his or her won risk. The school district assumes no responsibility for costs caused by the way the account holder chooses to use his or her network access. There is no guarantee of the dependability of the system or of the information accessed on the system. Conditions and services may change from time to time.

GOALS

Through Internet access, learners will:

A. Access global resources for educational purposes

B. Broaden their problem-solving and decision making abilities

C. Broaden their research capabilities by using primary sources

D. Gain an employability skill needed for the 21st century

E. Better define small group interaction skills

F. Develop further their higher level thinking skills

G. Learn/understand more of our growing global economy, government, and the use/importance of electronic data

H. Staff will learn these skills to stay professionally current and to be able to integrate them into their curriculum

I. Utilize technology to assist students/staff meets increasingly high academic

J. Utilize resources and cooperation skills with individuals and organizations outside our school setting including businesses and professionals, and other educational institutions, libraries, museums, and state/federal government data sources.

ACCESS USE POLICY

Internet access is coordinated through a complex association of government agencies, and regional and state networks. In addition, the smooth operation of the network relies upon the proper conduct of the end users who must adhere to strict rules governing the use of school district computer technology. These usage rules are intended to provide you with knowledge of the responsibilities you are about to acquire. This requires your efficient, ethical, and legal utilization of the district's network/Internet resources. If a Chilton Public School user violates any of these provisions, his/her license for Internet access will be terminated, future access denied and/or disciplinary action to be taken to include, but not limited to, suspension from school or employment and/or expulsion from school or dismissal from employment.

Internet Terms and Conditions of Use:

Acceptable Use- The purpose of the school Internet is to support research in and among academic institutions of the U.S. and the world by providing access to unique resources and opportunity for collaborative work. The use of the Internet **MUST** be in support of education and research and consistent with the educational objectives of the Chilton Public Schools. Transmission of or displaying of any material in violation of any U.S. or state regulation is prohibited.

This includes but is not limited to:

A. Copyrighted material: Illegal use of and/or plagiarism

B. Threatening or sending/ displaying obscene material, or material protected by trade secrets

C. Use for commercial activities is not acceptable

D. Use for product advertisement or political lobbying is prohibited

E. Engaging in practices that threaten the network (i.e. potential risk of virus) are prohibited

F. Using another's password/access code and/or trespassing in another's file(s), folders or documents and/or obtaining, downloading, printing files and/or documents that belong to another is strictly prohibited

G. Unauthorized access to district computer mainframes, servers, and/or firewall protection is strictly prohibited

H. Intentionally wasting limited resources or vandalizing data, equipment, or network

I. Sharing confidential information is strictly prohibited.

J. Not following protocol/etiquette as prescribed by the network administrator

Privileges- The use of the Internet is a privilege not a right and inappropriate use will result in cancellation of those privileges, and/or disciplinary action to be taken to include, but not limited to, suspension from school or employment and/or expulsion from school or dismissal from employment. Referral to legal authorities may also be warranted if deemed appropriate by school authorities. Each user of the Internet will receive a license/account after and only after:

A. Completing a training session on the Internet, Internet educational use, and Internet etiquette.

B. Receiving parent permission in writing to be allowed access to the Internet.

C. Receiving teacher permission to access the Internet verifying proper training, parent permission and educational need for access. The network administrator (the Superintendent or the Superintendent's designee) will deem what is appropriate. Also, the network administrator may close an account/deny access at any time as required. An administrator, parent, faculty member, or staff member of the Chilton Public Schools may request of the network administrator the denial, revocation, or suspension of a specific user(s) account/license at any time.

Please be reminded the Chilton Public School District retains the right to monitor file server space and review material on user accounts. That is, privacy is not guaranteed. The license/account holder uses the Internet at his or her own risk. The school district assumes no responsibility for costs caused by the way the account holder chooses to use his or her network access. There is no guarantee of the dependability of the system or of the information accessed on the system. Conditions and services may change from time to time.

Network Etiquette- The user is expected to abide by the generally accepted rules of network etiquette. These include, but are not limited to:

A. Be polite

B. Do not be abusive or threatening in messages to others

C. Use appropriate language. DO NOT use profanity, vulgarities, or other inappropriate language

D. Illegal activities are strictly forbidden

E. DO NOT reveal your personal address or phone number or those of others

F. DO NOT reveal your access code to anyone

G. Electronic transmission of information is not guaranteed to be private

H. School personnel do have access at any time to your Internet files, documents, or data

I. Messages relating to or in support of illegal activities can and will be reported to the authorities

J. Do not use the Internet or network in such a way that you disrupt the use of the network by others, this includes but is not limited to vandalism of data or hardware, introducing viruses, attempting to gain access to restricted information or networks

K. All communications and information accessible via the Internet or network should be assumed to be subject to copyright law

Chilton Public Schools make no warranties of any kind, whether expressed or implied, for the service it is providing. Chilton Public Schools will not be responsible for any damages you suffer. This includes loss of data resulting from delays, non-deliveries, mis-deliveries, or service interruptions caused by its own negligence or errors or omissions of yours. Use of any information obtained via the Internet/network is at your own risk. Chilton Public Schools specifically denies any responsibility for accuracy or quality of any information obtained through its services.

Security- Security on any computer system is a high priority when the system involves many users. If you suspect a security problem on the network/Internet, you are required to report it immediately to your teacher or the network administrator. Do not demonstrate the problem to other users. Any user identified as a security risk or having a history of problems with other computer systems will be denied access to the network/Internet through any Chilton Public School.

Vandalism- Vandalism will result in immediate revocation of access and disciplinary action. Vandalism is defined as any malicious attempt to harm or destroy equipment or data of other users, the Internet, or any network. This includes, but is not limited to the uploading or creation of computer viruses, violation of other user's access codes, and down loading or uploading of material inappropriate for, and of no educational value for, the school setting.

Staff members will participate in professional development programs, as appropriate, in accordance with the provisions of this policy. Training shall include:

A. the safety and security of students while using e-mail, chat rooms, social networking sites and other forms of electronic communications;

B. the inherent danger of students disclosing personally identifiable information online; and,

C. the consequences of unauthorized access (e.g., "hacking"), cyberbullying and other unlawful or inappropriate activities by students or staff online.

Furthermore staff members shall provide instruction for their students regarding the appropriate technology use and online safety and security as specified above.

The disclosure of personally identifiable information about students online is prohibited.

Students shall not access social media for personal use from the District's network, but shall be permitted to access social media for educational use in accordance with their teacher's approved plan for such use.

CHAPTER 943.70 Wisconsin Statutes

(2) OFFENSES AGAINST COMPUTER DATA AND PROGRAMS

(a) Whoever willfully, knowingly and without authorization does any of the following may be penalized as provided in par. (b):

1. Modifies data, computer programs or supporting documentation.

2. Destroys data, computer programs or supporting documentation.

3. Accesses data, computer programs or supporting documentation.

4. Takes possession of data, computer programs or supporting documentation.

5. Copies data, computer programs or supporting documentation.

6. Discloses restricted access codes or other restricted information to unauthorized persons.

(b) Whoever violates this subsection is guilty of:

1. A Class A misdemeanor unless subd. 2, 3, or 4 applies.

2. A Class E felony if the offense is committed to defraud or to obtain property.

3. A Class D felony if the damage is greater than $2500 or if it causes an interruption or impairment of governmental operations or public communication, of transportation or of a supply of water, gas or other public service.

4. A Class C felony if the offense creates a substantial and unreasonable risk of death or great

bodily harm to another.

(3) OFFENSES AGAINST COMPUTERS, COMPUTER EQUIPMENT OR SUPPLIES.

(a) Whoever willfully, knowingly and without authorization does any of the following may be penalized as provided in par. (b):

1. Modifies computer equipment or supplies that are used or intended to be used in a computer, computer system, or computer network.

2. Destroys, uses, takes or damages a computer, computer system, computer network or equipment or supplies used or intended to be used in a computer, computer system, or computer network.

(b) Whoever violates this subsection is guilty of:

1. A Class A misdemeanor unless subd. 2,3, or 4 applies.

2. A Class E felony if the offense is committed to defraud or obtain property.

3. A Class D felony if the damage to the computer, computer system, computer network, equipment or supplies is greater than $2500.

4. A Class C felony if the offense creates a substantial and unreasonable risk of death or great bodily harm to another.

Please retain the above information.

Approved: April 24, 2006

H.R. 4577, P.L. 106-554, Children's Internet Protection Act of 2000
47 U.S.C. 254(h), (1), Communications Act of 1934, as amended
20 U.S.C. 6801 et seq., Part F, Elementary and Secondary Education Act of 1965, as amended
18 U.S.C. 2256
18 U.S.C. 1460
18 U.S.C. 2246

7540.04 - E-MAIL ACCEPTABLE USE POLICY

A. E-mail is provided to enhance the performance of Chilton School District staff.

B. Access to e-mail is a privilege and not a right of employment. The District may deny e-mail privileges in part or in the entirety at any time.

C. Electronic mail messages on District computers, networks, and facilities are district property and not personal property. There is no expectation of privacy or confidentiality provided.

D. Electronic mail messages that contain inappropriate content or attachments (for example, remarks or images) may be considered the same as if spoken or written in a memorandum, and may result in consequences under existing processes concerning harassment (including, but not limited to: sexual, mental, or racial) or discrimination and/or other provisions relating to employee conduct.

E. Some e-mails may be subject to the Freedom of Information Act (FOIA) or they may be considered official records. Official Business messages shall comply with the requirements of the Federal Records Act.

F. The District does maintain central or distributed electronic mail archive of all electronic mail sent or received. The longevity of these archives will rest in the discretion of the designated systems manager.

G. Employees are reminded of their obligation to respect intellectual property rights that may apply to materials that they might include in e-mail – such as copyrighted images or text – and not to distribute copyrighted material electronically without the permission of the owner.

H. It is prohibited to introduce classified information into an unclassified system. The use of "personal" encryption is prohibited.

I. Limited personal use means occasional individual messages that are not official use, that are of limited size, and that are otherwise in conformance with District policies and procedures.

J. Abuse of e-mail privilege includes (but may not be limited to):

1. use for unofficial purposes that interferes with the conduct of business or individual performance
2. high frequency or high volume messages
3. e-mail of large size or with attachments that are large
4. messages that negatively impact the network performance

K. Use of the e-mail system should not reflect negatively on the school district. Users should be aware that concerns might be raised if their Chilton e-mail address is used in some inappropriate venues. For example – providing input to a golfing message board or user group with the Chilton.k12.wi.us address may raise the public's ire about district employees – even if the posting occurred during lunch or after normal business hours.

L. E-mail sent using the Chilton School District e-mail server must not be sent with the intent to defraud, intimidate, or otherwise commit an unlawful act.

M. Nothing for commercial gain of the District users may be transported on District e-mail. Employees may not utilize the District e-mail to transact business activity that is of a for-profit nature.

Staff members will participate in professional development programs in accordance with the provisions of this policy. Training shall include:

A. the safety and security of students while using e-mail, chat rooms, social networking sites and other forms of electronic communications;

B. the inherent danger of students disclosing personally identifiable information online; and,

C. the consequences of unauthorized access (e.g., "hacking"), cyberbullying and other unlawful or inappropriate activities by students or staff online.

Furthermore staff members shall provide instruction for their students regarding the appropriate technology use and online safety and security as specified above.

The disclosure of personally identifiable information about students online is prohibited.

Staff members shall not access social media for personal use on the District's network, and shall access social media for educational use only after submitting a plan for that educational use and securing the Principal's approval of that plan in advance.

H.R. 4577, P.L. 106-554, Children's Internet Protection Act of 2000
47 U.S.C. 254(h), (1), Communications Act of 1934, as amended
20 U.S.C. 6801 et seq., Part F, Elementary and Secondary Education Act of 1965, as amended
18 U.S.C. 2256
18 U.S.C. 1460
18 U.S.C. 2246

Approved: May 16, 2005

EMPLOYEE AUTHORIZATION:

I hereby certify that I have read and understand the Chilton Public Schools E-mail Acceptable Use Policy (EAUP), and agree to abide by its terms and conditions. I further understand that if I violate the EAUP, my e-mail access privilege will be revoked and I will be subject to disciplinary action. I further understand that a violation of the EAUP may subject me to criminal and/or civil liability.

User Name: _____
(Please Print)

Date: _____

User Signature: _____

7540.05 - ASSISTIVE TECHNOLOGY AND SERVICES

Students with disabilities have special challenges and may need assistive technology in order to more fully participate in their classrooms, homes, communities and workplaces. Through the use of assistive technology and services these students will have the opportunity to become more independent and self-reliant.

Each IEP team must include in their deliberations consideration of whether the use of assistive technology devices and services to aid students with disabilities is appropriate for each specific student. The Board also directs that students who qualify under Section 504 of the Rehabilitation Act be provided with assistive technology devices and services when deemed necessary.

Students having special needs but not requiring a formal IEP or 504 Plan according to law, which may include but are not limited to migrant students, homeless students, students living with poverty, and English Language Learners, will also be considered for assistive technology devices and/or services.

"Assistive technology device" means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of such device.

"Assistive technology service" means any service that directly assists a child with a disability in the selection, acquisition, or use of assistive technology devices. Assistive technology services include:

A. the evaluation of needs including a functional evaluation, in the child's customary environment;

B. purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices;

C. selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing of assistive technology devices;

D. coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;

E. training or technical assistance for a child with disabilities, or where appropriate that child's family;

F. training or technical assistance for professionals (including individuals providing education and rehabilitation services), employers or other(s) who provide services to employ, or are otherwise, substantially involved in the major life functions of that child.

The Board encourages the faculty to develop the appropriate skills necessary to effectively access, analyze, evaluate, and utilize assistive technology resources and assistive technology services.

The Board designates the District Administrator and the District Coordinator of Special Education Services as the administrators responsible for initiating, implementing, and enforcing this policy and its accompanying guidelines as they apply to the use of assistive technology and services in the District.

Individuals with Disabilities Education Act (IDEA), as amended
20 U.S.C. 1401
Section 504 Rehabilitation Act of 1973
Assistive Technology Act (P.L. 105 – 394) 1998

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7540.06 - ELECTRONIC MAIL

The Board of Education is committed to the effective use of electronic mail ("e-mail") by all District staff and Board members in the conduct of their official duties. This policy, as well as any guidelines developed pursuant to it are intended to establish a framework for the proper use of e-mail as an official business tool.

When available, the District's e-mail system must be used by employees for any official District e-mail communications. Personal e-mail accounts on providers other than the District's e-mail system may be blocked at any time due to concerns for network security, SPAM, or virus protection. Furthermore, District staff are expected to exercise reasonable judgment and prudence and take appropriate precautions to prevent viruses from entering the District's network when opening or forwarding any e-mails or attachments to e-mails that originate from unknown sources.

District staff shall not send or forward mass e-mails, even if the e-mails concern District business, without prior approval of the building principal.

District staff may join list servs or other e-mail services (e.g. RSS feeds) that pertain to their responsibilities in the District, provided these list servs or other e-mail services do not exceed the staff member's e-mail storage allotment. Staff members are required to keep their inbox and folders organized by regularly reviewing e-mail messages, appropriately saving e-mails that constitute a public record or student record and e-mails that are subject to a Litigation Hold, and purging all other e-mails that have been read. If the staff member is concerned that his/her e-mail storage allotment is not sufficient, s/he should contact the District's technology coordinator (IT staff). Similarly, if a staff member is unsure whether s/he has adequate storage or should subscribe to a list serv or RSS feed, s/he should discuss the issue with his/her building principal or the District's Director of Technology. The Director of Technology is authorized to block e-mail from list servs or e-mail services if the e-mails received by the staff member(s) regularly exceed ten (10) megabytes.

Public Records

The District complies with all Federal and State laws pertaining to electronic mail. Accordingly, e-mails written by or sent to District staff and Board members may be public records, or education records if their content includes personally identifiable information about a student. E-mails that are public records are subject to retention and disclosure, upon request, in accordance with Policy **8310** – Public Records. E-mails that are student records should be maintained pursuant to Policy **8330** – Student Records. Finally e-mails may constitute electronically stored information ("ESI") that may be subject to a Litigation Hold pursuant to Policy **8315** – Information Management.

State and Federal law exempt certain documents and information within documents from disclosure, no matter what their form. Therefore, certain e-mails may be exempt from disclosure or it may be necessary to redact certain content in the e-mails before the e–mails are released pursuant to a public records request, the request of a parent or eligible student to review education records, or a duly served discovery request.

E-mails written by or sent to District staff and Board members by means of their private e-mail account may be public records if the content of the e-mails concerns District business, or education records if their content includes personally identifiable information about a student. Consequently, staff shall comply with a District request to produce copies of e-mail in their possession that are either public records or education records, or that constitute ESI that is subject to a Litigation Hold, even if such records reside on a computer owned by an individual staff member, or are accessed through an e-mail account not controlled by the District.

Retention

Pursuant to State and Federal law, e-mails that are public records or education records, and e-mails that are subject to a Litigation Hold shall be retained.

E-mail retention is the responsibility of the individual e-mail user. E-mails sent or received using the District's e-mail service are retained for thirty (30) days on the server. This retention is for disaster recovery and not to provide for future retrieval.

The District maintains archives of all e-mails sent and/or received by users of the District's e-mail service for seven years.

Unauthorized E-mail

The Board does not authorize the use of its proprietary computers and computer network ("network") to accept, transmit, or distribute unsolicited bulk e-mail sent through the Internet to network e-mail accounts. In addition, Internet e-mail sent, or caused to be sent, to or through the network that makes use of or contains invalid or forged headers, invalid or non-existent domain names, or other means of deceptive addressing will be deemed to be counterfeit. Any attempt to send or cause such counterfeit e-mail to be sent to or through the network is unauthorized. Similarly, e-mail that is relayed from any third party's e-mail servers without the permission of that third party, or which employs similar techniques to hide or obscure the source of the e-mail, is also an unauthorized use of the network. The Board does not authorize the harvesting or collection of network e-mail addresses for the purposes of sending unsolicited e–mail. The Board reserves the right to take all legal and technical steps available to prevent unsolicited bulk e-mail or other unauthorized e-mail from entering, utilizing, or remaining within the network. Nothing in this policy is intended to grant any right to transmit or send e-mail to, or through, the network. The Board's failure to enforce this policy in every instance in which it might have application does not amount to a waiver of its rights.

Unauthorized use of the network in connection with the transmission of unsolicited bulk e-mail, including the transmission of counterfeit e-mail, may result in civil and criminal penalties against the sender and/or possible disciplinary action.

The District retains the right to monitor or access any District e-mail accounts at any time. Users should not expect that their communications sent or received through the District e-mail system will remain confidential and personal.

Authorized Use and Training

Pursuant to Policy 7540.04, staff and Board members using the District's e-mail system shall acknowledge their review of, and intent to comply with, the District's policy on acceptable use and safety by signing and submitting the appropriate form annually.

Furthermore, staff and Board members using the District's e-mail system shall satisfactorily complete training, pursuant to Policy 7540.04, regarding the proper use and retention of e-mail annually.

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7542 - NETWORK ACCESS FROM PERSONALLY-OWNED COMPUTERS AND/OR OTHER WEB-ENABLED DEVICES

District Board members and employees, as well as contractors, vendors, agents, and local media may use their personal computer or web-enabled device of any type to access the District's server and internal network while they are on-site at any District facility, provided the computer and web-enabled device meets the established standards for equipment used to access said server and network, and the individual granted access complies, without exception, with the established standards for appropriate use of the District's server and network.

The necessary standards for connecting to the District's server and network shall be developed. Access to the standards for connecting to the District's server and network using a personal computer or web-enabled device of any sort shall be provided upon request for all to whom this policy applies.

Establishment, and subsequent enforcement, of the standards is intended to minimize the potential exposure to the District from damages, including, but not limited to, the loss of sensitive District data, illegal access to confidential data, damage to the District's intellectual property, damage to the District's public image, and damage to the District's critical internal systems, from unauthorized use.

Any Board member, employee, student, contractor, vendor, or agent of the District who violates the established standards, who violates the District's Acceptable Use policy, or who accesses the server and network without authorization shall be subject to disciplinary action, up to and including expulsion, if a student, termination of employment if a District employee, denial of access if a Board member, or cancellation of the contract with the District if a contractor, vendor or agent. Further, the Board member, employee, student, contractor, vendor, or agent of the District who violates the established standards or who violates the District's Acceptable Use policy may be denied access to the District's server and network in the future.

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7543 - REMOTE ACCESS TO THE DISTRICT'S NETWORK

Access to the District's Website (www.chilton.k12.wi.us) is encouraged.

The following resources shall be available on the District's website:

A. the District's calendar of events
B. gradebook program
C. required State report
D. Board agendas and minutes
E. news items
F. school delays and closings

The Board encourages employees, parents, students, and community members to check the District's website regularly for changes to these resources and for the addition of other resources. Some resources may require a user name and password, or a login procedure due to the personally identifiable nature of the information provided through that resource (e.g., the gradebook program and e-mail system). If a user name and password, or login procedure, is necessary to access a resource, information shall be provided on the website explaining who is eligible for a user name and password, how to obtain a user name and password, and detailed instructions concerning the login process.

Access to the District Network through Server

Board members, District employees, and students, as well as contractors, vendors, and agents of the District, are permitted to use their personally-owned or District-owned computer or workstation and/or web-enabled devices of any type to remotely (i.e. away from District property and facilities) access the District's server and thereby connect to the District's Network. This policy is limited to remote access connections that are used to do work on behalf of or for the benefit of the District, including, but not limited to, reading or sending e-mail and reviewing District-provided intranet web resources.

Each individual granted remote access privileges pursuant to this policy must adhere to the following standards and regulations:

A. his/her device computer/device must have, at the minimum, the anti-virus software specified in the District's standards for remote access and connection
B. the individual may only access the Network using his/her assigned user name and password

   The individual must not allow other persons, including family members, to use his/her user name and password to login into the Network. The user may not go beyond his/her authorized access.
C. his/her device may not be connected to any other network at the same time s/he is connected to the Network, with the exception of personal networks that are under the complete control of the user
D. the individual may not access non-District e-mail accounts (e.g. Hotmail, Gmail, Yahoo, AOL, and the like) or other external resources while connected to the Network
E. his/her device may not, at any time while the individual is using remote access to connect to the Network, be reconfigured for the purpose of split tunneling or dual homing

F. use of the Network is contingent upon the individual abiding by the terms and conditions of the District's Network and Internet Acceptable Use and Safety policy and guidelines

Users may be required to sign the applicable agreement form prior to being permitted to use remote access.

Additional standards and regulations for remotely accessing and connecting to the District network may be developed and published.

Any user who violates this policy may be denied remote access and connection privileges.

Any employee who violates this policy may be disciplined, up to and including termination; any contractor, vendor, or agent who violates this policy may have his/her contract with the District terminated; and any student who violates this policy may be disciplined up to and including suspension or expulsion.

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7550 - JOINT USE OF FACILITIES/INTER-LIBRARY LOANS

The Board of Education advocates the joint expenditure of District funds and municipal or county funds to provide those facilities from which the entire community, children and adults alike, may derive benefits.

In accordance with this policy, the Board may, as either opportunity or need arises, and as it is entitled to do so by law, join with the Chilton Public Library, other governing bodies, private industry, and/or other school districts or educational institutions in acquiring, improving, equipping, operating, or maintaining such jointly-used facilities as recreational and cultural areas and/or facilities.

The Board also authorizes District participation in Inter-Library Loan programs. The District will loan school library books and other instructional materials that are not in immediate or constant demand by staff or students to another participating school district for use in the libraries of that school district.

43.72, Wis. Stats.

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9130 - PUBLIC REQUESTS, SUGGESTIONS, OR COMPLAINTS

Any individual(s), having a legitimate interest in the staff, programs and operations of this District shall have the right to present a request, suggestion, or complaint to the District and the Board of Education. At the same time, the Board has a right to protect the staff from inappropriate harassment. It is the intent of this policy to provide guidelines for considering and addressing public requests, suggestions, or complaints in an efficient, reasonable, and equitable manner. Requests, suggestions, or complaints made by District staff members are covered by Policy **3122** and Policy **4122**.

It is the desire of the Board to address any such matters through direct, informal discussions and other means. It is only when attempts at informal resolution fail that more formal procedures shall be used.

Generally, requests, suggestions, or complaints reaching the Board or Board members shall be referred to the District Administrator for consideration. Any individual presenting such a matter shall be provided with a copy of this policy.

Guidelines for Matters Regarding a Staff Member

A. First Level

Generally, if the matter concerns a professional staff member the individual(s) should discuss the matter with the staff member. The staff member shall take appropriate action within his/her authority and District administrative guidelines to deal with the matter.

Discussion with the staff member may not be appropriate in some situations including, for example, where the matter involves suspected child abuse, substance abuse, or any other serious allegation that may require investigation or inquiry by school officials prior to approaching the staff member.

As appropriate, the staff member shall report the matter and whatever action may have been taken to the building principal.

B. Second Level

If the matter has not been satisfactorily addressed at the First Level or it would be inappropriate to discuss the matter with the staff member, the individual(s) may discuss the matter with the staff member's supervisor, if applicable. Discussions with the supervisor shall occur promptly following any discussion with the staff member.

C. Third Level

If the matter has not been satisfactorily addressed at the Second level, and the matter does not involve the District Administrator, the

individual(s) may submit a written request for a conference to the District Administrator. This request should include:

1. the specific nature of the request, suggestion or complaint and a brief statement of the facts giving rise to it;

2. the respect in which it is alleged that the individual(s) (or child of a complainant) has been affected adversely;

The request must be submitted within ten days after discussion with the staff member's supervisor. The District Administrator shall respond in writing to the individual(s) and shall advise the Board of any resolution of the matter.

D. Fourth Level

If the matter has not been satisfactorily addressed at the Third Level, or at the First Level in the case of a matter involving the District Administrator, the individual(s) may submit a written request to the Board to address the matter. Any such request must be submitted within ten (10) days of receiving the District Administrator's written response.

The Board, after reviewing all material relating to the matter shall grant a hearing, which may be held in closed session at the discretion of the Board when consistent with Wisconsin's Open Meetings law before the Board.

The individual(s) shall be advised, in writing, of the Board's decision no more than ten (10) business days following the next regular meeting. The Board's decision will be final on the matter, and it will not provide a hearing to other complainants on the same issue.

If the individual(s) contacts an individual Board member to discuss the matter, the Board member shall inform the individual that s/he has no authority to act in his/her individual capacity and may refer the individual(s) to this guideline or the District Administrator for further assistance.

Guidelines for Matters Regarding District Services or Operations

If the matter relates to a District procedure or operation, it should be addressed, initially, to the appropriate supervisor of the service in question and then in subsequently higher levels as prescribed in "Guidelines for Matters Regarding a Staff Member".

Guidelines for Matters Regarding the Educational Program

If the matter relates to a District program, it should be addressed, initially, to the Director of Curriculum and then in subsequently higher levels as prescribed in "Matters Regarding a Staff Member".

Guidelines for Matters Regarding Instructional Materials

The District Administrator shall prepare administrative guidelines to ensure that students and parents are adequately informed each year regarding their right to inspect instructional materials used as part of the educational curriculum and the procedure for completing such an inspection. See Policy **2414**, AG 9130A and Form 9130 F3.

Parents only have the right to judge whether the material is acceptable for their own child.

Procedures for handling objections to instructional materials:

A. Review by administration of inappropriate materials (attempt to resolve). If not resolved:

B. The person or persons expressing an objection may register the objection in writing on a "Request for Reconsideration" form to be considered. This form may be obtained from any Chilton Public School office.

C. A Committee to review the complaint shall be appointed by the Superintendent or his designee. The committee shall be composed of the following:

1. One Board Member

2. One Parent

3. Appropriate Level Administrator

4. Appropriate Level Media Specialist

5. Appropriate Level Teacher

6. Two Appropriate Level Students (if applicable)

7. Complainant (if he or she desires) (This person is non-voting.)

D. Materials being objected to will be circulated to the members of the Review Committee.

E. The material in question shall be reviewed objectively and in its full context; evaluated in terms of the needs and interests of students, school, curriculum and community; and considered in the light of differing opinions.

F. If the complainant is present at the meeting he or she shall be welcome to present their views but shall not vote on the disposition of the material under consideration.

G. The Committee's decision shall be reached by a simple majority and

implemented immediately.

H. An appeal of the decision of the committee may be made by the complainant within two weeks to the Board of Education.

No challenged material may be removed from the curriculum or from a collection of resource materials except by action of the Board, and no challenged material may be removed solely because it presents ideas that may be unpopular or offensive to some. Any Board action to remove material will be accompanied by the Board's statement of its reasons for the removal.

118.01, 118.019, Wis. Stats.
20 U.S.C. 1232h

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Standard H - State Statute

Re: Library Staffing

Wisconsin Statute 121.02(1)(h):

[*Each school board shall*] Provide adequate instructional materials, texts and library services which reflect the cultural diversity and pluralistic nature of American society.

Administrative Rule PI 8.01(2)(h) currently in place operationalizing the above Statute:

(h) *Library media services.* Each school district board shall:

1. Have on file a written, long-range plan for library services development which has been formulated by teachers, library and audiovisual personnel and administrators, and approved by the school district board.

2. Designate a licensed library media person to direct and coordinate the district's library media program.

3. Provide library facilities within the school building and make available to all pupils a current, balanced collection of books, basic reference materials, texts, periodicals, and audiovisual materials which depicts in an accurate and unbiased way the cultural diversity and pluralistic nature of American society.

4. Provide library media services to all pupils as follows: to pupils in grades kindergarten through 6, library media services which are performed by or under the direction of licensed library and audiovisual personnel; and to pupils in grades 7 through 12, library media services which are performed by licensed library and audiovisual personnel.

121.02 School district standards.

(1) Except as provided in s. 118.40 (2r) (d), each school board shall:
(a)
1. Ensure that every teacher, supervisor, administrator and professional staff member holds a certificate, license or permit to teach issued by the department before entering on duties for such position.
2. Subject to s. 118.40 (8) (b) 2., ensure that all instructional staff of charter schools located in the school district hold a license or permit to teach issued by the department. For purposes of this subdivision, a virtual charter school is located in the school district specified in s. 118.40 (8) (a) and a charter school established under s. 118.40 (3) (c) 1. c. is located in the school district specified in s. 118.40 (3) (c) 1. c. The state superintendent shall promulgate rules defining "instructional staff" for purposes of this subdivision.
(b) Annually, establish with school board employees a professional staff development plan designed to meet the needs of individuals or curriculum areas in each school.
(c) Provide interventions or remedial reading services for a pupil in grades kindergarten to 4 if any of the following occurs:
1. The pupil fails to meet the reading objectives specified in the reading curriculum plan maintained by the school board under par. (k).
2. The pupil fails to score above the state minimum performance standard on the reading test under par. (r) and:
a. A teacher in the school district and the pupil's parent or guardian agree that the pupil's test performance accurately reflects the pupil's reading ability; or
b. A teacher in the school district determines, based on other objective evidence of the pupil's reading comprehension, that the pupil's test performance accurately reflects the pupil's reading ability.
3. The pupil's reading assessment under s. 118.016 indicates that the pupil is at risk of reading difficulty. If this subdivision applies, the interventions or services provided the pupil shall be scientifically based and shall address all areas in which the pupil is deficient in a manner consistent with the state standards in reading and language arts.
(d) Operate a 5-year-old kindergarten program, except in union high school districts.
(e) Provide guidance and counseling services.
(f)
1. Schedule at least 180 school days annually, less any days during which the state superintendent determines that school is not held or educational standards are not maintained as the result of a strike by school district employees.
2. Annually, schedule at least 437 hours of direct pupil instruction in kindergarten, at least 1,050 hours of direct pupil instruction in grades 1 to 6 and at least 1,137 hours of direct pupil instruction in grades 7 to 12. Scheduled hours under this subdivision include recess and time for pupils to transfer between classes but do not include the lunch period. A school board operating a 4-year-old kindergarten program may use up to 87.5 of the scheduled hours for outreach activities.
(g) Provide for emergency nursing services.

(h) Provide adequate instructional materials, texts and library services which reflect the cultural diversity and pluralistic nature of American society.
(i) Provide safe and healthful facilities. The facilities shall comply with ss. 254.11 to 254.178 and any rule promulgated under those sections.
(j) Ensure that instruction in elementary and high schools in health, physical education, art and music is provided by qualified teachers.
(k)
1. Maintain a written, sequential curriculum plan in at least 3 of the following subject areas: reading, language arts, mathematics, social studies, science, health, computer literacy, environmental education, vocational education, physical education, art and music. The plan shall specify objectives, course content and resources and shall include a program evaluation method.
2. Maintain a written, sequential curriculum plan in at least 3 additional subject areas specified in subd. 1.
3. Maintain a written, sequential curriculum plan in all of the remaining subject areas specified in subd. 1.
(l)
1. In the elementary grades, provide regular instruction in reading, language arts, social studies, mathematics, science, health, physical education, art and music.
2. In grades 5 to 8, provide regular instruction in language arts, social studies, mathematics, science, health, physical education, art and music. The school board shall also provide pupils with an introduction to career exploration and planning.
3. In grades 9 to 12, provide access to an educational program that enables pupils each year to study English, social studies, mathematics, science, vocational education, foreign language, physical education, art and music. In this subdivision, "access" means an opportunity to study through school district course offerings, independent study, cooperative educational service agencies or cooperative arrangements between school boards and postsecondary educational institutions.
4. Beginning September 1, 1991, as part of the social studies curriculum, include instruction in the history, culture and tribal sovereignty of the federally recognized American Indian tribes and bands located in this state at least twice in the elementary grades and at least once in the high school grades.
5. Provide regular instruction in foreign language in grades 7 and 8 beginning in the 1996-97 school year.
6. In one of grades 5 to 8 and in one of grades 10 to 12, provide pupils with the instruction on shaken baby syndrome and impacted babies described in s. 253.15 (5).
(m) Provide access to an education for employment program approved by the state superintendent. Beginning in the 1997-98 school year, the program shall incorporate applied curricula; guidance and counseling services under par. (e); technical preparation under s. 118.34; college preparation; youth apprenticeship under s. 106.13 or other job training and work experience; and instruction in skills relating to employment. The state superintendent shall assist school boards in complying with this paragraph.
Cross-reference: See also ch. PI 26, Wis. adm. code.
(n) Develop a plan for children at risk under s. 118.153.
(o) Annually comply with the requirements of s. 115.38 (2). The school board may include additional information in the report under s. 115.38 (2).
(p) Comply with high school graduation standards under s. 118.33 (1).

(q) Evaluate, in writing, the performance of all certified school personnel at the end of their first year and at least every 3rd year thereafter.
(r) Except as provided in s. 118.40 (2r) (d) 2., annually administer a standardized reading test developed by the department to all pupils enrolled in the school district in grade 3, including pupils enrolled in charter schools located in the school district, except that if a charter school is established under s. 118.40 (3) (c) 1. c., the school board specified in s. 118.40 (3) (c) 1. c. shall administer the test to pupils enrolled in the charter school regardless of the location of the charter school.
(s) Administer the examinations as required under s. 118.30.
(t) Provide access to an appropriate program for pupils identified as gifted or talented.
(1) A school district may provide for scoring the test administered under sub. (1) (r) or have it scored by the department. If the school district provides for scoring the test, the department shall reimburse the school district for the cost of scoring the test, not exceeding what the department's cost would be to score the test. Costs of scoring the tests and reimbursing school districts for scoring the tests shall be paid from the appropriation under s. 20.255 (1) (a).
(2) In order to ensure compliance with the standards under sub. (1), the department shall conduct an inquiry into compliance with the standards upon receipt of a complaint and may, on its own initiative, conduct an audit of a school district.
(3) Prior to any finding that a school district is not in compliance with the standards under sub. (1), the state superintendent shall, upon request of the school board or upon receipt of a petition signed by the maximum number of electors allowed for nomination papers of school district officers under s. 8.10 (3) (i), (km) or (ks), conduct a public hearing in the school district. If the state superintendent, after the hearing, finds that the district is not in compliance with the standards, the state superintendent may develop with the school board a plan which describes methods of achieving compliance. The plan shall specify the time within which compliance shall be achieved. The state superintendent shall withhold up to 25% of state aid from any school district that fails to achieve compliance within the specified period.
(4) Any school district which is completely surrounded by water may meet the requirements of this section by being in substantial compliance with the standards in sub. (1). Annually by August 15, the school district shall submit to the state superintendent for approval a report describing the methods by which the school district intends to substantially comply with the standards. The state superintendent shall allow any such school district maximum flexibility in the school district's substantial compliance plans.
(5) The state superintendent shall promulgate rules to implement and administer this section, including rules defining "regular instruction" for the purpose of sub. (1) (L) 1. and 2.
History: 1973 c. 90, 115, 243, 333; 1975 c. 39, 198; 1977 c. 29, 178, 206, 418, 429, 447; 1979 c. 34, 221; 1985 a. 29, 228; 1987 a. 27, 399; 1989 a. 31, 285; 1991 a. 48, 269; 1993 a. 16, 339, 430, 450; 1995 a. 27 ss. 4036 to 4038, 9145 (1); 1997 a. 27, 113; 1999 a. 9; 2001 a. 16; 2005 a. 165, 220; 2007 a. 222; 2009 a. 28; 2011 a. 166.
Cross-reference: See also ch. PI 8, Wis. adm. code.



AMERICAN ASSOCIATION OF SCHOOL LIBRARIANS

STANDARDS FOR THE

21st-CENTURY LEARNER





COMMON BELIEFS

Reading is a window to the world.

Reading is a foundational skill for learning, personal growth, and enjoyment. The degree to which students can read and understand text in all formats (e.g., picture, video, print) and all contexts is a key indicator of success in school and in life. As a lifelong learning skill, reading goes beyond decoding and comprehension to interpretation and development of new understandings.



Inquiry provides a framework for learning.

To become independent learners, students must gain not only the skills but also the disposition to use those skills, along with an understanding of their own responsibilities and self-assessment strategies. Combined, these four elements build a learner who can thrive in a complex information environment.

Ethical behavior in the use of information must be taught.

In this increasingly global world of information, students must be taught to seek diverse perspectives, gather and use information ethically, and use social tools responsibly and safely.

Technology skills are crucial for future employment needs.

Today's students need to develop information skills that will enable them to use technology as an important tool for learning, both now and in the future.

Equitable access is a key component for education.

All children deserve equitable access to books and reading, to information, and to information technology in an environment that is safe and conducive to learning.

The definition of information literacy has become more complex as resources and technologies have changed.

Information literacy has progressed from the simple definition of using reference resources to find information. Multiple literacies, including digital, visual, textual, and technological, have now joined information literacy as crucial skills for this century.

The continuing expansion of information demands that all individuals acquire the thinking skills that will enable them to learn on their own.

The amount of information available to our learners necessitates that each individual acquire the skills to select, evaluate, and use information appropriately and effectively.

Learning has a social context.

Learning is enhanced by opportunities to share and learn with others. Students need to develop skills in sharing knowledge and learning with others, both in face-to-face situations and through technology.

School libraries are essential to the development of learning skills.

School libraries provide equitable physical and intellectual access to the resources and tools required for learning in a warm, stimulating, and safe environment. School librarians collaborate with others to provide instruction, learning strategies, and practice in using the essential learning skills needed in the 21st century.



LEARNERS USE SKILLS, RESOURCES, & TOOLS TO:

1. Inquire, think critically, and gain knowledge.
2. Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.
3. Share knowledge and participate ethically and productively as members of our democratic society.
4. Pursue personal and aesthetic growth.

1 Inquire, think critically, and gain knowledge.

1.1 Skills

1.1.1 Follow an inquiry-based process in seeking knowledge in curricular subjects, and make the real-world connection for using this process in own life.

1.1.2 Use prior and background knowledge as context for new learning.

1.1.3 Develop and refine a range of questions to frame the search for new understanding.

1.1.4 Find, evaluate, and select appropriate sources to answer questions.

1.1.5 Evaluate information found in selected sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context.

1.1.6 Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning.

1.1.7 Make sense of information gathered from diverse sources by identifying misconceptions, main and supporting ideas, conflicting information, and point of view or bias.

1.1.8 Demonstrate mastery of technology tools for accessing information and pursuing inquiry.

1.1.9 Collaborate with others to broaden and deepen understanding.



1.2 Dispositions in Action

1.2.1 Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts.

1.2.2 Demonstrate confidence and self-direction by making independent choices in the selection of resources and information.

1.2.3 Demonstrate creativity by using multiple resources and formats.

1.2.4 Maintain a critical stance by questioning the validity and accuracy of all information.

1.2.5 Demonstrate adaptability by changing the inquiry focus, questions, resources, or strategies when necessary to achieve success.

1.2.6 Display emotional resilience by persisting in information searching despite challenges.

1.2.7 Display persistence by continuing to pursue information to gain a broad perspective.



1.3 Responsibilities

1.3.1 Respect copyright/intellectual property rights of creators and producers.

1.3.2 Seek divergent perspectives during information gathering and assessment.

1.3.3 Follow ethical and legal guidelines in gathering and using information.

1.3.4 Contribute to the exchange of ideas within the learning community.

1.3.5 Use information technology responsibly.

1.4 Self-Assessment Strategies

1.4.1 Monitor own information-seeking processes for effectiveness and progress, and adapt as necessary.

1.4.2 Use interaction with and feedback from teachers and peers to guide own inquiry process.

1.4.3 Monitor gathered information, and assess for gaps or weaknesses.

1.4.4 Seek appropriate help when it is needed.

2 Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.

2.1 Skills

2.1.1 Continue an inquiry-based research process by applying critical-thinking skills (analysis, synthesis, evaluation, organization) to information and knowledge in order to construct new understandings, draw conclusions, and create new knowledge.

2.1.2 Organize knowledge so that it is useful.

2.1.3 Use strategies to draw conclusions from information and apply knowledge to curricular areas, real-world situations, and further investigations.

2.1.4 Use technology and other information tools to analyze and organize information.

2.1.5 Collaborate with others to exchange ideas, develop new understandings, make decisions, and solve problems.

2.1.6 Use the writing process, media and visual literacy, and technology skills to create products that express new understandings.

2.2 Dispositions in Action

2.2.1 Demonstrate flexibility in the use of resources by adapting information strategies to each specific resource and by seeking additional resources when clear conclusions cannot be drawn.

2.2.2 Use both divergent and convergent thinking to formulate alternative conclusions and test them against the evidence.

2.2.3 Employ a critical stance in drawing conclusions by demonstrating that the pattern of evidence leads to a decision or conclusion.

2.2.4 Demonstrate personal productivity by completing products to express learning.

2.3 Responsibilities

2.3.1 Connect understanding to the real world.

2.3.2 Consider diverse and global perspectives in drawing conclusions.

2.3.3 Use valid information and reasoned conclusions to make ethical decisions.

2.4 Self-Assessment Strategies

2.4.1 Determine how to act on information (accept, reject, modify).

2.4.2 Reflect on systematic process, and assess for completeness of investigation.

2.4.3 Recognize new knowledge and understanding.

2.4.4 Develop directions for future investigations.



3 Share knowledge and participate ethically and productively as members of our democratic society.

3.1 Skills

3.1.1 Conclude an inquiry-based research process by sharing new understandings and reflecting on the learning.

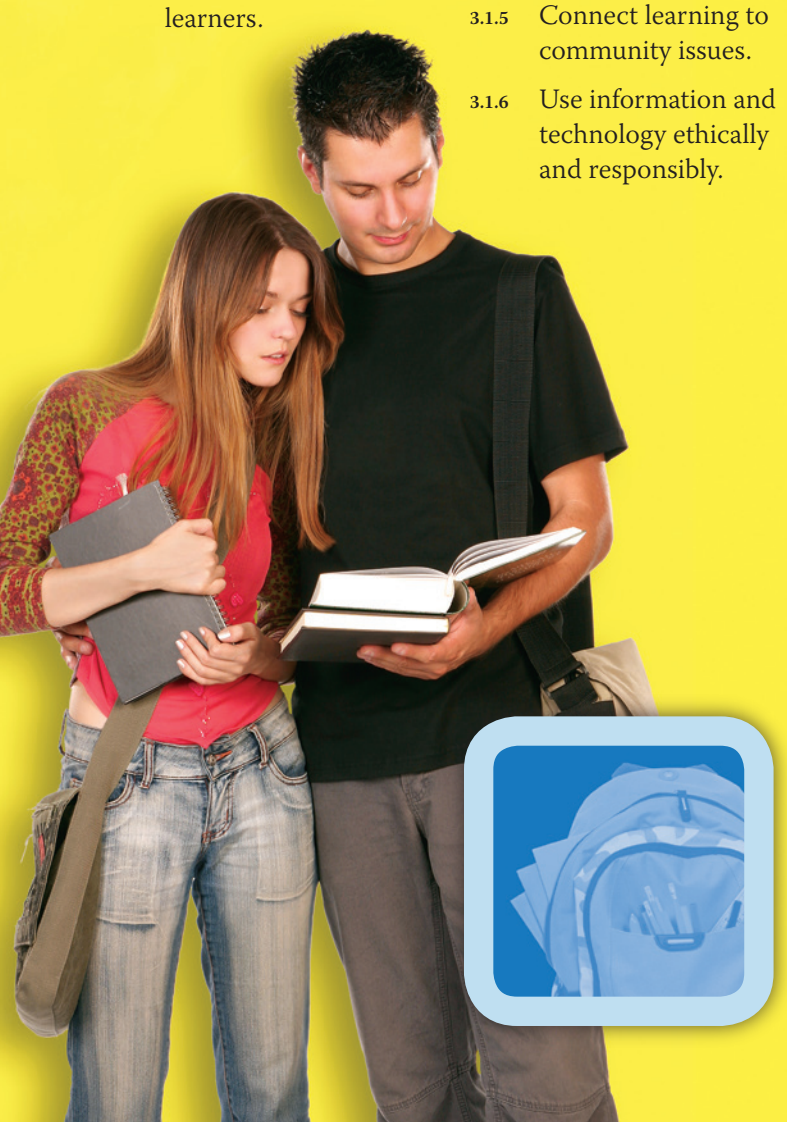
3.1.2 Participate and collaborate as members of a social and intellectual network of learners.

3.1.3 Use writing and speaking skills to communicate new understandings effectively.

3.1.4 Use technology and other information tools to organize and display knowledge and understanding in ways that others can view, use, and assess.

3.1.5 Connect learning to community issues.

3.1.6 Use information and technology ethically and responsibly.



3.2 Dispositions in Action

3.2.1 Demonstrate leadership and confidence by presenting ideas to others in both formal and informal situations.

3.2.2 Show social responsibility by participating actively with others in learning situations and by contributing questions and ideas during group discussions.

3.2.3 Demonstrate teamwork by working productively with others.

3.3 Responsibilities

3.3.1 Solicit and respect diverse perspectives while searching for information, collaborating with others, and participating as a member of the community.

3.3.2 Respect the differing interests and experiences of others, and seek a variety of viewpoints.

3.3.3 Use knowledge and information skills and dispositions to engage in public conversation and debate around issues of common concern.

3.3.4 Create products that apply to authentic, real-world contexts.

3.3.5 Contribute to the exchange of ideas within and beyond the learning community.

3.3.6 Use information and knowledge in the service of democratic values.

3.3.7 Respect the principles of intellectual freedom.

3.4 Self-Assessment Strategies

3.4.1 Assess the processes by which learning was achieved in order to revise strategies and learn more effectively in the future.

3.4.2 Assess the quality and effectiveness of the learning product.

3.4.3 Assess own ability to work with others in a group setting by evaluating varied roles, leadership, and demonstrations of respect for other viewpoints.

4 Pursue personal and aesthetic growth.

4.1 Skills

4.1.1 Read, view, and listen for pleasure and personal growth.

4.1.2 Read widely and fluently to make connections with self, the world, and previous reading.

4.1.3 Respond to literature and creative expressions of ideas in various formats and genres.

4.1.4 Seek information for personal learning in a variety of formats and genres.

4.1.5 Connect ideas to own interests and previous knowledge and experience.

4.1.6 Organize personal knowledge in a way that can be called upon easily.

4.1.7 Use social networks and information tools to gather and share information.

4.1.8 Use creative and artistic formats to express personal learning.



4.2 Dispositions in Action

4.2.1 Display curiosity by pursuing interests through multiple resources.

4.2.2 Demonstrate motivation by seeking information to answer personal questions and interests, trying a variety of formats and genres, and displaying a willingness to go beyond academic requirements.

4.2.3 Maintain openness to new ideas by considering divergent opinions, changing opinions or conclusions when evidence supports the change, and seeking information about new ideas encountered through academic or personal experiences.

4.2.4 Show an appreciation for literature by electing to read for pleasure and expressing an interest in various literary genres.

4.3 Responsibilities

4.3.1 Participate in the social exchange of ideas, both electronically and in person.

4.3.2 Recognize that resources are created for a variety of purposes.

4.3.3 Seek opportunities for pursuing personal and aesthetic growth.

4.3.4 Practice safe and ethical behaviors in personal electronic communication and interaction.



4.4 Self-Assessment Strategies

4.4.1 Identify own areas of interest.

4.4.2 Recognize the limits of own personal knowledge.



4.4.3 Recognize how to focus efforts in personal learning.

4.4.4 Interpret new information based on cultural and social context.

4.4.5 Develop personal criteria for gauging how effectively own ideas are expressed.

4.4.6 Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs.

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21st CENTURY LEARNERS

Skills

Key abilities needed for understanding, learning, thinking, and mastering subjects.

key question

Does the student have the right proficiencies to explore a topic or subject further?

Dispositions in Action

Ongoing beliefs and attitudes that guide thinking and intellectual behavior that can be measured through actions taken.

key question

Is the student disposed to higher-level thinking and actively engaged in critical thinking to gain and share knowledge?

Responsibilities

Common behaviors used by independent learners in researching, investigating, and problem solving.

key question

Is the student aware that the foundational traits for 21st-century learning require self-accountability that extends beyond skills and dispositions?

Self-Assessment Strategies

Reflections on one's own learning to determine that the skills, dispositions, and responsibilities are effective.

key question

Can the student recognize personal strengths and weaknesses over time and become a stronger, more independent learner?

iste nets·s
ADVANCING DIGITAL AGE LEARNING

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

a. Apply existing knowledge to generate new ideas, products, or processes
b. Create original works as a means of personal or group expression
c. Use models and simulations to explore complex systems and issues
d. Identify trends and forecast possibilities

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats
c. Develop cultural understanding and global awareness by engaging with learners of other cultures
d. Contribute to project teams to produce original works or solve problems

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information.

a. Plan strategies to guide inquiry
b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
d. Process data and report results

4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

a. Identify and define authentic problems and significant questions for investigation
b. Plan and manage activities to develop a solution or complete a project
c. Collect and analyze data to identify solutions and/or make informed decisions
d. Use multiple processes and diverse perspectives to explore alternative solutions



5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

a. Advocate and practice safe, legal, and responsible use of information and technology
b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
c. Demonstrate personal responsibility for lifelong learning
d. Exhibit leadership for digital citizenship

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations.

a. Understand and use technology systems
b. Select and use applications effectively and productively
c. Troubleshoot systems and applications
d. Transfer current knowledge to learning of new technologies

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Effective teachers model and apply the NETS·S as they design, implement, and assess learning experiences to engage students and improve learning; enrich professional practice; and provide positive models for students, colleagues, and the community. All teachers should meet the following standards and performance indicators.

1. Facilitate and Inspire Student Learning and Creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.

a. Promote, support, and model creative and innovative thinking and inventiveness
b. Engage students in exploring real-world issues and solving authentic problems using digital tools and resources
c. Promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes
d. Model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

2. Design and Develop Digital Age Learning Experiences and Assessments

Teachers design, develop, and evaluate authentic learning experiences and assessment incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS·S.

a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress
c. Customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources
d. Provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

3. Model Digital Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.

a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations
b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
c. Communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital age media and formats
d. Model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning

4. Promote and Model Digital Citizenship and Responsibility

Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices.

a. Advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources

b. Address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources

c. Promote and model digital etiquette and responsible social interactions related to the use of technology and information

d. Develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital age communication and collaboration tools

5. Engage in Professional Growth and Leadership

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources.

a. Participate in local and global learning communities to explore creative applications of technology to improve student learning

b. Exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others

c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning

d. Contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community

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ADVANCING DIGITAL AGE LEADERSHIP

1. Visionary Leadership

Educational Administrators inspire and lead development and implementation of a shared vision for comprehensive integration of technology to promote excellence and support transformation throughout the organization.

a. Inspire and facilitate among all stakeholders a shared vision of purposeful change that maximizes use of digital-age resources to meet and exceed learning goals, support effective instructional practice, and maximize performance of district and school leaders

b. Engage in an ongoing process to develop, implement, and communicate technology-infused strategic plans aligned with a shared vision

c. Advocate on local, state and national levels for policies, programs, and funding to support implementation of a technology-infused vision and strategic plan



2. Digital Age Learning Culture

Educational Administrators create, promote, and sustain a dynamic, digital-age learning culture that provides a rigorous, relevant, and engaging education for all students.

a. Ensure instructional innovation focused on continuous improvement of digital-age learning

b. Model and promote the frequent and effective use of technology for learning

c. Provide learner-centered environments equipped with technology and learning resources to meet the individual, diverse needs of all learners

d. Ensure effective practice in the study of technology and its infusion across the curriculum

e. Promote and participate in local, national, and global learning communities that stimulate innovation, creativity, and digital age collaboration

3. Excellence in Professional Practice

Educational Administrators promote an environment of professional learning and innovation that empowers educators to enhance student learning through the infusion of contemporary technologies and digital resources.

a. Allocate time, resources, and access to ensure ongoing professional growth in technology fluency and integration

b. Facilitate and participate in learning communities that stimulate, nurture and support administrators, faculty, and staff in the study and use of technology

c. Promote and model effective communication and collaboration among stakeholders using digital age tools

d. Stay abreast of educational research and emerging trends regarding effective use of technology and encourage evaluation of new technologies for their potential to improve student learning

4. Systemic Improvement

Educational Administrators provide digital age leadership and management to continuously improve the organization through the effective use of information and technology resources.

a. Lead purposeful change to maximize the achievement of learning goals through the appropriate use of technology and media-rich resources
b. Collaborate to establish metrics, collect and analyze data, interpret results, and share findings to improve staff performance and student learning
c. Recruit and retain highly competent personnel who use technology creatively and proficiently to advance academic and operational goals
d. Establish and leverage strategic partnerships to support systemic improvement
e. Establish and maintain a robust infrastructure for technology including integrated, interoperable technology systems to support management, operations, teaching, and learning

5. Digital Citizenship

Educational Administrators model and facilitate understanding of social, ethical and legal issues and responsibilities related to an evolving digital culture.

a. Ensure equitable access to appropriate digital tools and resources to meet the needs of all learners
b. Promote, model and establish policies for safe, legal, and ethical use of digital information and technology
c. Promote and model responsible social interactions related to the use of technology and information
d. Model and facilitate the development of a shared cultural understanding and involvement in global issues through the use of contemporary communication and collaboration tools

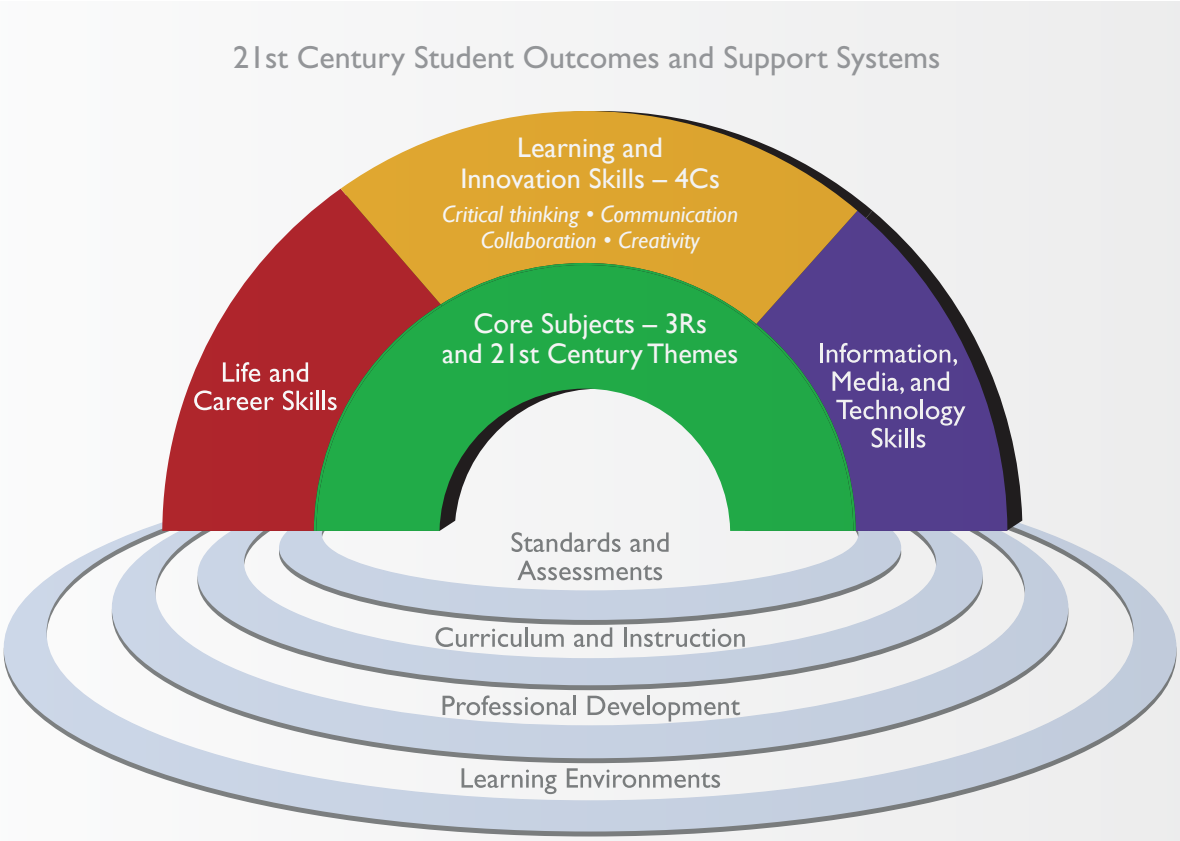
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Partnership for 21st Century Skills

Framework for 21st Century Learning

The Partnership for 21st Century Skills has developed a vision for student success in the new global economy.



21ST CENTURY STUDENT OUTCOMES

To help practitioners integrate skills into the teaching of core academic subjects, the Partnership has developed a unified, collective vision for learning known as the Framework for 21st Century Learning. This Framework describes the skills, knowledge and expertise students must master to succeed in work and life; it is a blend of content knowledge, specific skills, expertise and literacies.

Every 21st century skills implementation requires the development of core academic subject knowledge and understanding among all students. Those who can think critically and communicate effectively must build on a base of core academic subject knowledge.

Within the context of core knowledge instruction, **students must also learn the essential skills for success in today's world, such as critical thinking, problem solving, communication and collaboration.**

When a school or district builds on this foundation, combining the entire Framework with the necessary support systems—standards, assessments, curriculum and instruction, professional development and learning environments—students are more engaged in the learning process and graduate better prepared to thrive in today's global economy.

Publication date: 03/11

Core Subjects and 21st Century Themes

Mastery of **core subjects and 21st century themes** is essential to student success. Core subjects include English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government and civics.

In addition, schools must promote an understanding of academic content at much higher levels by weaving **21st century interdisciplinary themes** into core subjects:

- **Global Awareness**
- **Financial, Economic, Business and Entrepreneurial Literacy**
- **Civic Literacy**
- **Health Literacy**
- **Environmental Literacy**

Learning and Innovation Skills

Learning and innovation skills are what separate students who are prepared for increasingly complex life and work environments in today's world and those who are not. They include:

- **Creativity and Innovation**
- **Critical Thinking and Problem Solving**
- **Communication and Collaboration**

Information, Media and Technology Skills

Today, we live in a technology and media-driven environment, marked by access to an abundance of information, rapid changes in technology tools and the ability to collaborate and make individual contributions on an unprecedented scale. Effective citizens and workers must be able to exhibit a range of functional and critical thinking skills, such as:

- **Information Literacy**
- **Media Literacy**
- **ICT (Information, Communications and Technology) Literacy**

Life and Career Skills

Today's life and work environments require far more than thinking skills and content knowledge. The ability to navigate the complex life and work environments in the globally competitive information age requires students to pay rigorous attention to developing adequate life and career skills, such as:

- **Flexibility and Adaptability**
- **Initiative and Self-Direction**
- **Social and Cross-Cultural Skills**
- **Productivity and Accountability**
- **Leadership and Responsibility**

21ST CENTURY SUPPORT SYSTEMS

Developing a comprehensive framework for 21st century learning requires more than identifying specific skills, content knowledge, expertise and literacies. An innovative support system must be created to help students master the multi-dimensional abilities that will be required of them. The Partnership has identified five critical support systems to ensure student mastery of 21st century skills:

- **21st Century Standards**
- **Assessments of 21st Century Skills**
- **21st Century Curriculum and Instruction**
- **21st Century Professional Development**
- **21st Century Learning Environments**

For more information, visit the Partnership's website at www.P21.org.



PARTNERSHIP FOR 21ST CENTURY SKILLS

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- MHz Networks
- Microsoft Corporation
- National Academy Foundation
- National Education Association
- netTrekker
- Oracle Education Foundation
- Pearson
- PMI Educational Foundation
- Verizon
- Walt Disney Company

The New Common Core State Standards (CCSS)

Information taken directly from the Common Core State Standards website: www.corestandards.org

The Common Core State Standards Initiative is a state-led effort coordinated by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO). The standards were developed in collaboration with teachers, school administrators, and experts, to provide a clear and consistent framework to prepare our children for college and the workforce.

The NGA Center and CCSSO received initial feedback on the draft standards from national organizations representing, but not limited to, teachers, postsecondary educators (including community colleges), civil rights groups, English language learners, and students with disabilities. Following the initial round of feedback, the draft standards were opened for public comment, receiving nearly 10,000 responses.

The standards are informed by the highest, most effective models from states across the country and countries around the world, and provide teachers and parents with a common understanding of what students are expected to learn. Consistent standards will provide appropriate benchmarks for all students, regardless of where they live.

These standards define the knowledge and skills students should have within their K-12 education careers so that they will graduate from high school able to succeed in entry-level, credit-bearing academic college courses and in workforce training programs. The standards:

- Are aligned with college and work expectations;
- Are clear, understandable and consistent;
- Include rigorous content and application of knowledge through high-order skills;
- Build upon strengths and lessons of current state standards;
- Are informed by other top performing countries, so that all students are prepared to succeed in our global economy and society; and
- Are evidence-based.

Key Points In English Language Arts

Reading

- The standards establish a "staircase" of increasing complexity in what students must be able to read so that all students are ready for the demands of college- and career-level reading no later than the end of high school. The standards also require the progressive development of reading comprehension so that students advancing through the grades are able to gain more from whatever they read.
- The standards mandate certain critical types of content for all students, including classic myths and stories from around the world, foundational U.S. documents, seminal works of American literature, and the writings of Shakespeare. The standards appropriately defer the many remaining decisions about what and how to teach to states, districts, and schools.

Writing

- The ability to write logical arguments based on substantive claims, sound reasoning, and relevant evidence is a cornerstone of the writing standards, with opinion writing—a basic form of argument—extending down into the earliest grades.
- Research—both short, focused projects (such as those commonly required in the workplace) and longer term in depth research —is emphasized throughout the standards but most prominently in the writing strand since a written analysis and presentation of findings is so often critical.

Speaking and Listening

- The standards require that students gain, evaluate, and present increasingly complex information, ideas, and evidence through listening and speaking as well as through media.

Language

- The standards expect that students will grow their vocabularies through a mix of conversations, direct instruction, and reading. The standards will help students determine word meanings, appreciate the nuances of words, and steadily expand their repertoire of words and phrases.
- The standards help prepare students for real life experience at college and in 21st century careers. The standards recognize that students must be able to use formal English in their writing and speaking but that they must also be able to make informed, skillful choices among the many ways to express themselves through language.

Media and Technology

- Just as media and technology are integrated in school and life in the twenty-first century, skills related to media use (both critical analysis and production of media) are integrated throughout the standards.

Key Points In Mathematics

- The K-5 standards provide students with a *solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions and decimals*—which help young students build the foundation to successfully apply more demanding math concepts and procedures, and move into applications.
- The standards stress not only procedural skill but also conceptual understanding, to make sure students are learning and absorbing the critical information they need to succeed at higher levels - rather than the current practices by which many students learn enough to get by on the next test, but forget it shortly thereafter, only to review again the following year.
- Having built a strong foundation K-5, students can do hands on learning in geometry, algebra and probability and statistics. Students who have completed 7th grade and mastered the content and skills through the 7th grade will be *well-prepared for algebra* in grade 8.
- The high school standards call on students to *practice applying mathematical ways of thinking to real world issues and challenges*; they prepare students to think and reason mathematically.

- The high school standards set a *rigorous definition of college and career readiness*, by helping students develop a depth of understanding and ability to apply mathematics to novel situations, as college students and employees regularly do.

More information about the new Common Core State Standards can be found at www.corestandards.org. There is also a frequently asked questions document on that site that you may find helpful.

The School District of Chilton is currently in the process of reviewing our current curriculum and aligning it to the new standards. Teachers of English/Language Arts and Math will be heavily involved with curriculum work and lesson planning during the summer of 2012 so that they are ready to teach to these new standards when we open our doors in the fall of 2012.

COMMON CORE STATE STANDARDS FOR

English Language Arts
&
Literacy in History/Social Studies, Science, and Technical Subjects



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Introduction

The Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects ("the Standards") are the culmination of an extended, broad-based effort to fulfill the charge issued by the states to create the next generation of K–12 standards in order to help ensure that all students are college and career ready in literacy no later than the end of high school.

The present work, led by the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA), builds on the foundation laid by states in their decades-long work on crafting high-quality education standards. The Standards also draw on the most important international models as well as research and input from numerous sources, including state departments of education, scholars, assessment developers, professional organizations, educators from kindergarten through college, and parents, students, and other members of the public. In their design and content, refined through successive drafts and numerous rounds of feedback, the Standards represent a synthesis of the best elements of standards-related work to date and an important advance over that previous work.

As specified by CCSSO and NGA, the Standards are (1) research and evidence based, (2) aligned with college and work expectations, (3) rigorous, and (4) internationally benchmarked. A particular standard was included in the document only when the best available evidence indicated that its mastery was essential for college and career readiness in a twenty-first-century, globally competitive society. The Standards are intended to be a living work: as new and better evidence emerges, the Standards will be revised accordingly.

The Standards are an extension of a prior initiative led by CCSSO and NGA to develop College and Career Readiness (CCR) standards in reading, writing, speaking, listening, and language as well as in mathematics. The CCR Reading, Writing, and Speaking and Listening Standards, released in draft form in September 2009, serve, in revised form, as the backbone for the present document. Grade-specific K–12 standards in reading, writing, speaking, listening, and language translate the broad (and, for the earliest grades, seemingly distant) aims of the CCR standards into age- and attainment-appropriate terms.

The Standards set requirements not only for English language arts (ELA) but also for literacy in history/social studies, science, and technical subjects. Just as students must learn to read, write, speak, listen, and use language effectively in a variety of content areas, so too must the Standards specify the literacy skills and understandings required for college and career readiness in multiple disciplines. Literacy standards for grade 6 and above are predicated on teachers of ELA, history/social studies, science, and technical subjects using their content area expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields. It is important to note that the 6–12 literacy standards in history/social studies, science, and technical subjects are not meant to replace content standards in those areas but rather to supplement them. States may incorporate these standards into their standards for those subjects or adopt them as content area literacy standards.

As a natural outgrowth of meeting the charge to define college and career readiness, the Standards also lay out a vision of what it means to be a literate person in the twenty-first century. Indeed, the skills and understandings students are expected to demonstrate have wide applicability outside the classroom or workplace. Students who meet the Standards readily undertake the close, attentive reading that is at the heart of understanding and enjoying complex works of literature. They habitually perform the critical reading necessary to pick carefully through the staggering amount of information available today in print and digitally. They actively seek the wide, deep, and thoughtful engagement with high-quality literary and informational texts that builds knowledge, enlarges experience, and broadens worldviews. They reflexively demonstrate the cogent reasoning and use of evidence that is essential to both private deliberation and responsible citizenship in a democratic republic. In short, students who meet the Standards develop the skills in reading, writing, speaking, and listening that are the foundation for any creative and purposeful expression in language.

June 2, 2010

Key Design Considerations

CCR and grade-specific standards

The CCR standards anchor the document and define general, cross-disciplinary literacy expectations that must be met for students to be prepared to enter college and workforce training programs ready to succeed. The K–12 grade-specific standards define end-of-year expectations and a cumulative progression designed to enable students to meet college and career readiness expectations no later than the end of high school. The CCR and high school (grades 9–12) standards work in tandem to define the college and career readiness line—the former providing broad standards, the latter providing additional specificity. Hence, both should be considered when developing college and career readiness assessments.

Students advancing through the grades are expected to meet each year's grade-specific standards, retain or further develop skills and understandings mastered in preceding grades, and work steadily toward meeting the more general expectations described by the CCR standards.

Grade levels for K–8; grade bands for 9–10 and 11–12

The Standards use individual grade levels in kindergarten through grade 8 to provide useful specificity; the Standards use two-year bands in grades 9–12 to allow schools, districts, and states flexibility in high school course design.

A focus on results rather than means

By emphasizing required achievements, the Standards leave room for teachers, curriculum developers, and states to determine how those goals should be reached and what additional topics should be addressed. Thus, the Standards do not mandate such things as a particular writing process or the full range of metacognitive strategies that students may need to monitor and direct their thinking and learning. Teachers are thus free to provide students with whatever tools and knowledge their professional judgment and experience identify as most helpful for meeting the goals set out in the Standards.

An integrated model of literacy

Although the Standards are divided into Reading, Writing, Speaking and Listening, and Language strands for conceptual clarity, the processes of communication are closely connected, as reflected throughout this document. For example, Writing standard 9 requires that students be able to write about what they read. Likewise, Speaking and Listening standard 4 sets the expectation that students will share findings from their research.

Research and media skills blended into the Standards as a whole

To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new. The need to conduct research and to produce and consume media is embedded into every aspect of today's curriculum. In like fashion, research and media skills and understandings are embedded throughout the Standards rather than treated in a separate section.

Shared responsibility for students' literacy development

The Standards insist that instruction in reading, writing, speaking, listening, and language be a shared responsibility within the school. The K–5 standards include expectations for reading, writing, speaking, listening, and language applicable to a range of subjects, including but not limited to ELA. The grades 6–12 standards are divided into two sections, one for ELA and the other for history/social studies, science, and technical subjects. This division reflects the unique, time-honored place of ELA teachers in developing students' literacy skills while at the same time recognizing that teachers in other areas must have a role in this development as well.

Part of the motivation behind the interdisciplinary approach to literacy promulgated by the Standards is extensive research establishing the need for college and career ready students to be proficient in reading complex informational text independently in a variety of content areas. Most of the required reading in college and workforce training programs is informational in structure and challenging in content; postsecondary education programs typically provide students with both a higher volume of such reading than is generally required in K–12 schools and comparatively little scaffolding.

The Standards are not alone in calling for a special emphasis on informational text. The 2009 reading framework of the National Assessment of Educational Progress (NAEP) requires a high and increasing proportion of informational text on its assessment as students advance through the grades.

Distribution of Literary and Informational Passages by Grade in the 2009 NAEP Reading Framework

Grade	Literary	Informational
4	50%	50%
8	45%	55%
12	30%	70%

Source: National Assessment Governing Board. (2008). *Reading framework for the 2009 National Assessment of Educational Progress.* Washington, DC: U.S. Government Printing Office.

The Standards aim to align instruction with this framework so that many more students than at present can meet the requirements of college and career readiness. In K–5, the Standards follow NAEP's lead in balancing the reading of literature with the reading of informational texts, including texts in history/social studies, science, and technical subjects. In accord with NAEP's growing emphasis on informational texts in the higher grades, the Standards demand that a significant amount of reading of informational texts take place in and outside the ELA classroom. Fulfilling the Standards for 6–12 ELA requires much greater attention to a specific category of informational text—literary nonfiction—than has been traditional. Because the ELA classroom must focus on literature (stories, drama, and poetry) as well as literary nonfiction, a great deal of informational reading in grades 6–12 must take place in other classes if the NAEP assessment framework is to be matched instructionally.[1] To measure students' growth toward college and career readiness, assessments aligned with the Standards should adhere to the distribution of texts across grades cited in the NAEP framework.

NAEP likewise outlines a distribution across the grades of the core purposes and types of student writing. The 2011 NAEP framework, like the Standards, cultivates the development of three mutually reinforcing writing capacities: writing to persuade, to explain, and to convey real or imagined experience. Evidence concerning the demands of college and career readiness gathered during development of the Standards concurs with NAEP's shifting emphases: standards for grades 9–12 describe writing in all three forms, but, consistent with NAEP, the overwhelming focus of writing throughout high school should be on arguments and informative/explanatory texts.[2]

Distribution of Communicative Purposes by Grade in the 2011 NAEP Writing Framework

Grade	To Persuade	To Explain	To Convey Experience
4	30%	35%	35%
8	35%	35%	30%
12	40%	40%	20%

Source: National Assessment Governing Board. (2007). *Writing framework for the 2011 National Assessment of Educational Progress, pre-publication edition.* Iowa City, IA: ACT, Inc.

It follows that writing assessments aligned with the Standards should adhere to the distribution of writing purposes across grades outlined by NAEP.

Focus and coherence in instruction and assessment

While the Standards delineate specific expectations in reading, writing, speaking, listening, and language, each standard need not be a separate focus for instruction and assessment. Often, several standards can be addressed by a single rich task. For example, when editing writing, students address Writing standard 5 ("Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach") as well as Language standards 1–3 (which deal with conventions of standard English and knowledge of language). When drawing evidence from literary and informational texts per Writing standard 9, students are also demonstrating their comprehension skill in relation to specific standards in Reading. When discussing something they have read or written, students are also demonstrating their speaking and listening skills. The CCR anchor standards themselves provide another source of focus and coherence.

The same ten CCR anchor standards for Reading apply to both literary and informational texts, including texts in history/social studies, science, and technical subjects. The ten CCR anchor standards for Writing cover numerous text types and subject areas. This means that students can develop mutually reinforcing skills and exhibit mastery of standards for reading and writing across a range of texts and classrooms.

[1]The percentages on the table reflect the sum of student reading, not just reading in ELA settings. Teachers of senior English classes, for example, are not required to devote 70 percent of reading to informational texts. Rather, 70 percent of student reading across the grade should be informational.
[2]As with reading, the percentages in the table reflect the sum of student writing, not just writing in ELA settings.

What is Not Covered by the Standards

The Standards should be recognized for what they are not as well as what they are. The most important intentional design limitations are as follows:

1. The Standards define what all students are expected to know and be able to do, not how teachers should teach. For instance, the use of play with young children is not specified by the Standards, but it is welcome as a valuable activity in its own right and as a way to help students meet the expectations in this document. Furthermore, while the Standards make references to some particular forms of content, including mythology, foundational U.S. documents, and Shakespeare, they do not—indeed, cannot—enumerate all or even most of the content that students should learn. The Standards must therefore be complemented by a well-developed, content-rich curriculum consistent with the expectations laid out in this document.

2. While the Standards focus on what is most essential, they do not describe all that can or should be taught. A great deal is left to the discretion of teachers and curriculum developers. The aim of the Standards is to articulate the fundamentals, not to set out an exhaustive list or a set of restrictions that limits what can be taught beyond what is specified herein.

3. The Standards do not define the nature of advanced work for students who meet the Standards prior to the end of high school. For those students, advanced work in such areas as literature, composition, language, and journalism should be available. This work should provide the next logical step up from the college and career readiness baseline established here.

4. The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and achievement levels of students in any given classroom. However, the Standards do provide clear signposts along the way to the goal of college and career readiness for all students.

5. It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post–high school lives.

   Each grade will include students who are still acquiring English. For those students, it is possible to meet the standards in reading, writing, speaking, and listening without displaying native-like control of conventions and vocabulary.

   The Standards should also be read as allowing for the widest possible range of students to participate fully from the outset and as permitting appropriate accommodations to ensure maximum participation of students with special education needs. For example, for students with disabilities *reading* should allow for the use of Braille, screen-reader technology, or other assistive devices, while *writing* should include the use of a scribe, computer, or speech-to-text technology. In a similar vein, *speaking* and *listening* should be interpreted broadly to include sign language.

6. While the ELA and content area literacy components described herein are critical to college and career readiness, they do not define the whole of such readiness. Students require a wide-ranging, rigorous academic preparation and, particularly in the early grades, attention to such matters as social, emotional, and physical development and approaches to learning. Similarly, the Standards define literacy expectations in history/social studies, science, and technical subjects, but literacy standards in other areas, such as mathematics and health education, modeled on those in this document are strongly encouraged to facilitate a comprehensive, schoolwide literacy program.

Students Who are College and Career Ready in Reading, Writing, Speaking, Listening, and Language

The descriptions that follow are not standards themselves but instead offer a portrait of students who meet the standards set out in this document. As students advance through the grades and master the standards in reading, writing, speaking, listening, and language, they are able to exhibit with increasing fullness and regularity these capacities of the literate individual.

They demonstrate independence.

Students can, without significant scaffolding, comprehend and evaluate complex texts across a range of types and disciplines, and they can construct effective arguments and convey intricate or multifaceted information. Likewise, students are able independently to discern a speaker's key points, request clarification, and ask relevant questions. They build on others' ideas, articulate their own ideas, and confirm they have been understood. Without prompting, they demonstrate command of standard English and acquire and use a wide-ranging vocabulary. More broadly, they become self-directed learners, effectively seeking out and using resources to assist them, including teachers, peers, and print and digital reference materials.

They build strong content knowledge.

Students establish a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and discipline-specific expertise. They refine and share their knowledge through writing and speaking.

They respond to the varying demands of audience, task, purpose, and discipline.

Students adapt their communication in relation to audience, task, purpose, and discipline. They set and adjust purpose for reading, writing, speaking, listening, and language use as warranted by the task. They appreciate nuances, such as how the composition of an audience should affect tone when speaking and how the connotations of words affect meaning. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in science).

They comprehend as well as critique.

Students are engaged and open-minded—but discerning—readers and listeners. They work diligently to understand precisely what an author or speaker is saying, but they also question an author's or speaker's assumptions and premises and assess the veracity of claims and the soundness of reasoning.

They value evidence.

Students cite specific evidence when offering an oral or written interpretation of a text. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others' use of evidence.

They use technology and digital media strategically and capably.

Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

They come to understand other perspectives and cultures.

Students appreciate that the twenty-first-century classroom and workplace are settings in which people from often widely divergent cultures and who represent diverse experiences and perspectives must learn and work together. Students actively seek to understand other perspectives and cultures through reading and listening, and they are able to communicate effectively with people of varied backgrounds. They evaluate other points of view critically and constructively. Through reading great classic and contemporary works of literature representative of a variety of periods, cultures, and worldviews, students can vicariously inhabit worlds and have experiences much different than their own.

How to Read This Document

Overall Document Organization

The Standards comprise three main sections: a comprehensive K–5 section and two content area–specific sections for grades 6–12, one for ELA and one for history/social studies, science, and technical subjects. Three appendices accompany the main document.

Each section is divided into strands. K–5 and 6–12 ELA have Reading, Writing, Speaking and Listening, and Language strands; the 6–12 history/ social studies, science, and technical subjects section focuses on Reading and Writing. Each strand is headed by a strand-specific set of College and Career Readiness Anchor Standards that is identical across all grades and content areas.

Standards for each grade within K–8 and for grades 9–10 and 11–12 follow the CCR anchor standards in each strand. Each grade-specific standard (as these standards are collectively referred to) corresponds to the same-numbered CCR anchor standard. Put another way, each CCR anchor standard has an accompanying grade-specific standard translating the broader CCR statement into grade-appropriate end-of-year expectations.

Individual CCR anchor standards can be identified by their strand, CCR status, and number (R.CCR.6, for example). Individual grade-specific standards can be identified by their strand, grade, and number (or number and letter, where applicable), so that RI.4.3, for example, stands for Reading, Informational Text, grade 4, standard 3 and W.5.1a stands for Writing, grade 5, standard 1a. Strand designations can be found in brackets alongside the full strand title.

Who is responsible for which portion of the Standards

A single K–5 section lists standards for reading, writing, speaking, listening, and language across the curriculum, reflecting the fact that most or all of the instruction students in these grades receive comes from one teacher. Grades 6–12 are covered in two content area–specific sections, the first for the English language arts teacher and the second for teachers of history/social studies, science, and technical subjects. Each section uses the same CCR anchor standards but also includes grade-specific standards tuned to the literacy requirements of the particular discipline(s).

Key Features of the Standards

Reading: Text complexity and the growth of comprehension

The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by-grade "staircase" of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.

Writing: Text types, responding to reading, and research

The Standards acknowledge the fact that whereas some writing skills, such as the ability to plan, revise, edit, and publish, are applicable to many types of writing, other skills are more properly defined in terms of specific writing types: arguments, informative/explanatory texts, and narratives. Standard 9 stresses the importance of the writing-reading connection by requiring students to draw upon and write about evidence from literary and informational texts. Because of the centrality of writing to most forms of inquiry, research standards are prominently included in this strand, though skills important to research are infused throughout the document.

Speaking and Listening: Flexible communication and collaboration

Including but not limited to skills necessary for formal presentations, the Speaking and Listening standards require students to develop a range of broadly useful oral communication and interpersonal skills. Students must learn to work together, express and listen carefully to ideas, integrate information from oral, visual, quantitative, and media sources, evaluate what they hear, use media and visual displays strategically to help achieve communicative purposes, and adapt speech to context and task.

Language: Conventions, effective use, and vocabulary

The Language standards include the essential "rules" of standard written and spoken English, but they also approach language as a matter of craft and informed choice among alternatives. The vocabulary standards focus on understanding words and phrases, their relationships, and their nuances and on acquiring new vocabulary, particularly general academic and domain-specific words and phrases.

Appendices A, B, and C

Appendix A contains supplementary material on reading, writing, speaking and listening, and language as well as a glossary of key terms. Appendix B consists of text exemplars illustrating the complexity, quality, and range of reading appropriate for various grade levels with accompanying sample performance tasks. Appendix C includes annotated samples demonstrating at least adequate performance in student writing at various grade levels.



STANDARDS FOR

English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects

K–5

College and Career Readiness Anchor Standards for Reading

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

*Please see "Research to Build and Present Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

Note on range and content of student reading

To build a foundation for college and career readiness, students must read widely and deeply from among a broad range of high-quality, increasingly challenging literary and informational texts. Through extensive reading of stories, dramas, poems, and myths from diverse cultures and different time periods, students gain literary and cultural knowledge as well as familiarity with various text structures and elements. By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades. Students also acquire the habits of reading independently and closely, which are essential to their future success.

Reading Standards for Literature K–5

RL

The following standards offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades. *Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.*

Kindergartners:	Grade 1 students:	Grade 2 students:
Key Ideas and Details		
1. With prompting and support, ask and answer questions about key details in a text.	1. Ask and answer questions about key details in a text.	1. Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text.
2. With prompting and support, retell familiar stories, including key details.	2. Retell stories, including key details, and demonstrate understanding of their central message or lesson.	2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
3. With prompting and support, identify characters, settings, and major events in a story.	3. Describe characters, settings, and major events in a story, using key details.	3. Describe how characters in a story respond to major events and challenges.
Craft and Structure		
4. Ask and answer questions about unknown words in a text.	4. Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	4. Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
5. Recognize common types of texts (e.g., storybooks, poems).	5. Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.	5. Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	6. Identify who is telling the story at various points in a text.	6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.
Integration of Knowledge and Ideas		
7. With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).	7. Use illustrations and details in a story to describe its characters, setting, or events.	7. Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
8. (Not applicable to literature)	8. (Not applicable to literature)	8. (Not applicable to literature)
9. With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.	9. Compare and contrast the adventures and experiences of characters in stories.	9. Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.
Range of Reading and Level of Text Complexity		
10. Actively engage in group reading activities with purpose and understanding.	10. With prompting and support, read prose and poetry of appropriate complexity for grade 1.	10. By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Standards for Literature K–5

RL

Grade 3 students:	Grade 4 students:	Grade 5 students:
Key Ideas and Details		
1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.	2. Determine a theme of a story, drama, or poem from details in the text; summarize the text.	2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.	3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).	3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
Craft and Structure		
4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.	4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).	4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.
5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.	5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.	5. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
6. Distinguish their own point of view from that of the narrator or those of the characters.	6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	6. Describe how a narrator's or speaker's point of view influences how events are described.
Integration of Knowledge and Ideas		
7. Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).	7. Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.	7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
8. (Not applicable to literature)	8. (Not applicable to literature)	8. (Not applicable to literature)
9. Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).	9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.	9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.
Range of Reading and Level of Text Complexity		
10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.	10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.

Reading Standards for Informational Text K–5

RI

Kindergartners:	Grade 1 students:	Grade 2 students:
Key Ideas and Details		
1. With prompting and support, ask and answer questions about key details in a text.	1. Ask and answer questions about key details in a text.	1. Ask and answer such questions as *who, what, where, when, why,* and *how* to demonstrate understanding of key details in a text.
2. With prompting and support, identify the main topic and retell key details of a text.	2. Identify the main topic and retell key details of a text.	2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	3. Describe the connection between two individuals, events, ideas, or pieces of information in a text.	3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
Craft and Structure		
4. With prompting and support, ask and answer questions about unknown words in a text.	4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	4. Determine the meaning of words and phrases in a text relevant to a *grade 2 topic or subject area*.
5. Identify the front cover, back cover, and title page of a book.	5. Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.	5. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.	6. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.	6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.
Integration of Knowledge and Ideas		
7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).	7. Use the illustrations and details in a text to describe its key ideas.	7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
8. With prompting and support, identify the reasons an author gives to support points in a text.	8. Identify the reasons an author gives to support points in a text.	8. Describe how reasons support specific points the author makes in a text.
9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	9. Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	9. Compare and contrast the most important points presented by two texts on the same topic.
Range of Reading and Level of Text Complexity		
10. Actively engage in group reading activities with purpose and understanding.	10. With prompting and support, read informational texts appropriately complex for grade 1.	10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Standards for Informational Text K–5

RI

Grade 3 students:	Grade 4 students:	Grade 5 students:
Key Ideas and Details		
1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine the main idea of a text; recount the key details and explain how they support the main idea.	2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.	2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.	3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.	3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
Craft and Structure		
4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*.	4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*.	4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*.
5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.	5. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.	5. Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.
6. Distinguish their own point of view from that of the author of a text.	6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.	6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
Integration of Knowledge and Ideas		
7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).	7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).	8. Explain how an author uses reasons and evidence to support particular points in a text.	8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).
9. Compare and contrast the most important points and key details presented in two texts on the same topic.	9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.	9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
Range of Reading and Level of Text Complexity		
10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.	10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.

Reading Standards: Foundational Skills (K–5)

RF

These standards are directed toward fostering students' understanding and working knowledge of concepts of print, the alphabetic principle, and other basic conventions of the English writing system. These foundational skills are not an end in and of themselves; rather, they are necessary and important components of an effective, comprehensive reading program designed to develop proficient readers with the capacity to comprehend texts across a range of types and disciplines. Instruction should be differentiated: good readers will need much less practice with these concepts than struggling readers will. The point is to teach students what they need to learn and not what they already know—to discern when particular children or activities warrant more or less attention.

Note: In kindergarten, children are expected to demonstrate increasing awareness and competence in the areas that follow.

Kindergartners:	Grade 1 students:
Print Concepts	
1. Demonstrate understanding of the organization and basic features of print. a. Follow words from left to right, top to bottom, and page by page. b. Recognize that spoken words are represented in written language by specific sequences of letters. c. Understand that words are separated by spaces in print. d. Recognize and name all upper- and lowercase letters of the alphabet.	1. Demonstrate understanding of the organization and basic features of print. a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
Phonological Awareness	
2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Recognize and produce rhyming words. b. Count, pronounce, blend, and segment syllables in spoken words. c. Blend and segment onsets and rimes of single-syllable spoken words. d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonent-vowel-consonent, or CVC) words.* (This does not include CVCs ending with /l/, /r/, or /x/.) e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.	2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Distinguish long from short vowel sounds in spoken single-syllable words. b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends. c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).

*Words, syllables, or phonemes written in /slashes/refer to their pronunciation or phonology.
Thus, /CVC/ is a word with three phonemes regardless of the number of letters in the spelling of the word.

Reading Standards: Foundational Skills (K–5)

RF

Note: In kindergarten children are expected to demonstrate increasing awareness and competence in the areas that follow.

Kindergartners:	Grade 1 students:	Grade 2 students:
Phonics and Word Recognition		
3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sound for each consonant. b. Associate the long and short sounds with common spellings (graphemes) for the five major vowels. c. Read common high-frequency words by sight (e.g., *the*, *of*, *to*, *you*, *she*, *my*, *is*, *are*, *do*, *does*). d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.	3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Know the spelling-sound correspondences for common consonant digraphs. b. Decode regularly spelled one-syllable words. c. Know final -e and common vowel team conventions for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns by breaking the words into syllables. f. Read words with inflectional endings. g. Recognize and read grade-appropriate irregularly spelled words.	3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Distinguish long and short vowels when reading regularly spelled one-syllable words. b. Know spelling-sound correspondences for additional common vowel teams. c. Decode regularly spelled two-syllable words with long vowels. d. Decode words with common prefixes and suffixes. e. Identify words with inconsistent but common spelling-sound correspondences. f. Recognize and read grade-appropriate irregularly spelled words.
Fluency		
4. Read emergent-reader texts with purpose and understanding.	4. Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	4. Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Reading Standards: Foundational Skills (K–5)

RF

Grade 3 students:	Grade 4 students:	Grade 5 students:
Phonics and Word Recognition		
3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Identify and know the meaning of the most common prefixes and derivational suffixes. b. Decode words with common Latin suffixes. c. Decode multisyllable words. d. Read grade-appropriate irregularly spelled words.	3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.	3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
Fluency		
4. Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	4. Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	4. Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

College and Career Readiness Anchor Standards for Writing

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Text Types and Purposes*

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

*These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.

Note on range and content of student writing

To build a foundation for college and career readiness, students need to learn to use writing as a way of offering and supporting opinions, demonstrating understanding of the subjects they are studying, and conveying real and imagined experiences and events. They learn to appreciate that a key purpose of writing is to communicate clearly to an external, sometimes unfamiliar audience, and they begin to adapt the form and content of their writing to accomplish a particular task and purpose. They develop the capacity to build knowledge on a subject through research projects and to respond analytically to literary and informational sources. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and extended time frames throughout the year.

Writing Standards K–5

W

The following standards for K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas, and they should address increasingly demanding content and sources. *Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.* The expected growth in student writing ability is reflected both in the standards themselves and in the collection of annotated student writing samples in Appendix C.

Kindergartners:	Grade 1 students:	Grade 2 students:
Text Types and Purposes		
1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., *My favorite book is . . .*).	1. Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.	1. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., *because*, *and*, *also*) to connect opinion and reasons, and provide a concluding statement or section.
2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.	2. Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.	3. Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	3. Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.
Production and Distribution of Writing		
4. (Begins in grade 3)	4. (Begins in grade 3)	4. (Begins in grade 3)
5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.	5. With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.	5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.	6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.	6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
Research to Build and Present Knowledge		
7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).	7. Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions).	7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).
8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	8. Recall information from experiences or gather information from provided sources to answer a question.
9. (Begins in grade 4)	9. (Begins in grade 4)	9. (Begins in grade 4)
Range of Writing		
10. (Begins in grade 3)	10. (Begins in grade 3)	10. (Begins in grade 3)

Writing Standards K–5

W

Grade 3 students:	Grade 4 students:	Grade 5 students:
Text Types and Purposes		
1. Write opinion pieces on topics or texts, supporting a point of view with reasons. a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. b. Provide reasons that support the opinion. c. Use linking words and phrases (e.g., *because*, *therefore*, *since*, *for example*) to connect opinion and reasons. d. Provide a concluding statement or section.	1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. b. Provide reasons that are supported by facts and details. c. Link opinion and reasons using words and phrases (e.g., *for instance*, *in order to*, *in addition*). d. Provide a concluding statement or section related to the opinion presented.	1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. b. Provide logically ordered reasons that are supported by facts and details. c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*). d. Provide a concluding statement or section related to the opinion presented.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. b. Develop the topic with facts, definitions, and details. c. Use linking words and phrases (e.g., *also*, *another*, *and*, *more*, *but*) to connect ideas within categories of information. d. Provide a concluding statement or section.	2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure.	3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situationand introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.	3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.

Writing Standards K–5

W

Grade 3 students:	Grade 4 students:	Grade 5 students:
Production and Distribution of Writing		
4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 3 on pages 28 and 29.)	5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 4 on pages 28 and 29.)	5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 5 on pages 28 and 29.)
6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.	6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.	6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.
Research to Build and Present Knowledge		
7. Conduct short research projects that build knowledge about a topic.	7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.	7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.	8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
9. (Begins in grade 4)	9. Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 4 Reading standards* to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."). b. Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").	9. Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 5 Reading standards* to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"). b. Apply *grade 5 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]").
Range of Writing		
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

College and Career Readiness Anchor Standards for Speaking and Listening

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

Note on range and content of student speaking and listening

To build a foundation for college and career readiness, students must have ample opportunities to take part in a variety of rich, structured conversations—as part of a whole class, in small groups, and with a partner. Being productive members of these conversations requires that students contribute accurate, relevant information; respond to and develop what others have said; make comparisons and contrasts; and analyze and synthesize a multitude of ideas in various domains.

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. Digital texts confront students with the potential for continually updated content and dynamically changing combinations of words, graphics, images, hyperlinks, and embedded video and audio.

Speaking and Listening Standards K–5

SL

The following standards for K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. *Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.*

Kindergartners:	Grade 1 students:	Grade 2 students:
Comprehension and Collaboration		
1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). b. Continue a conversation through multiple exchanges.	1. Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges. c. Ask questions to clear up any confusion about the topics and texts under discussion.	1. Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). b. Build on others' talk in conversations by linking their comments to the remarks of others. c. Ask for clarification and further explanation as needed about the topics and texts under discussion.
2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.	2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
Presentation of Knowledge and Ideas		
4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.	4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	4. Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
5. Add drawings or other visual displays to descriptions as desired to provide additional detail.	5. Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.	5. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.
6. Speak audibly and express thoughts, feelings, and ideas clearly.	6. Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.)	6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 on pages 26 and 27 for specific expectations.)

Speaking and Listening Standards K–5

SL

Grade 3 students:	Grade 4 students:	Grade 5 students:
Comprehension and Collaboration		
1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. d. Explain their own ideas and understanding in light of the discussion.	1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.	1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	2. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.	3. Identify the reasons and evidence a speaker provides to support particular points.	3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.
Presentation of Knowledge and Ideas		
4. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.	4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5. Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.	5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 on pages 28 and 29 for specific expectations.)	6. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 on pages 28 and 29 for specific expectations.)	6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 on pages 28 and 29 for specific expectations.)

College and Career Readiness Anchor Standards for Language

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

Note on range and content of student language use

To build a foundation for college and career readiness in language, students must gain control over many conventions of standard English grammar, usage, and mechanics as well as learn other ways to use language to convey meaning effectively. They must also be able to determine or clarify the meaning of grade-appropriate words encountered through listening, reading, and media use; come to appreciate that words have nonliteral meanings, shadings of meaning, and relationships to other words; and expand their vocabulary in the course of studying content. The inclusion of Language standards in their own strand should not be taken as an indication that skills related to conventions, effective language use, and vocabulary are unimportant to reading, writing, speaking, and listening; indeed, they are inseparable from such contexts.

Language Standards K–5

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The following standards for grades K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. *Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.* Beginning in grade 3, skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*). See the table on page 30 for a complete list and Appendix A for an example of how these skills develop in sophistication.

Kindergartners:	Grade 1 students:	Grade 2 students:
Conventions of Standard English		
1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Print many upper- and lowercase letters. b. Use frequently occurring nouns and verbs. c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., *dog, dogs*; *wish, wishes*). d. Understand and use question words (interrogatives) (e.g., *who, what, where, when, why, how*). e. Use the most frequently occurring prepositions (e.g., *to, from, in, out, on, off, for, of, by, with*). f. Produce and expand complete sentences in shared language activities.	1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Print all upper- and lowercase letters. b. Use common, proper, and possessive nouns. c. Use singular and plural nouns with matching verbs in basic sentences (e.g., *He hops*; *We hop*). d. Use personal, possessive, and indefinite pronouns (e.g., *I, me, my; they, them, their; anyone, everything*). e. Use verbs to convey a sense of past, present, and future (e.g., *Yesterday I walked home; Today I walk home; Tomorrow I will walk home*). f. Use frequently occurring adjectives. g. Use frequently occurring conjunctions (e.g., *and, but, or, so, because*). h. Use determiners (e.g., articles, demonstratives). i. Use frequently occurring prepositions (e.g., *during, beyond, toward*). j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.	1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Use collective nouns (e.g., *group*). b. Form and use frequently occurring irregular plural nouns (e.g., *feet, children, teeth, mice, fish*). c. Use reflexive pronouns (e.g., *myself, ourselves*). d. Form and use the past tense of frequently occurring irregular verbs (e.g., *sat, hid, told*). e. Use adjectives and adverbs, and choose between them depending on what is to be modified. f. Produce, expand, and rearrange complete simple and compound sentences (e.g., *The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy*).
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize the first word in a sentence and the pronoun *I*. b. Recognize and name end punctuation. c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.	2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize dates and names of people. b. Use end punctuation for sentences. c. Use commas in dates and to separate single words in a series. d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words. e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.	2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize holidays, product names, and geographic names. b. Use commas in greetings and closings of letters. c. Use an apostrophe to form contractions and frequently occurring possessives. d. Generalize learned spelling patterns when writing words (e.g., cage → badge; boy → boil). e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Language Standards K–5

Kindergartners:	Grade 1 students:	Grade 2 students:
Knowledge of Language		
3. (Begins in grade 2)	3. (Begins in grade 2)	3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Compare formal and informal uses of English.
Vocabulary Acquisition and Use		
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *kindergarten reading and content.* a. Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* is a bird and learning the verb *to duck*). b. Use the most frequently occurring inflections and affixes (e.g., *-ed*, *-s*, *re-*, *un-*, *pre-*, *-ful*, *-less*) as a clue to the meaning of an unknown word.	4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 1 reading and content*, choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Use frequently occurring affixes as a clue to the meaning of a word. c. Identify frequently occurring root words (e.g., *look*) and their inflectional forms (e.g., *looks*, *looked*, *looking*).	4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 2 reading and content*, choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., *happy/unhappy*, *tell/retell*). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *addition*, *additional*). d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*). e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.
5. With guidance and support from adults, explore word relationships and nuances in word meanings. a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). c. Identify real-life connections between words and their use (e.g., note places at school that are *colorful*). d. Distinguish shades of meaning among verbs describing the same general action (e.g., *walk, march, strut, prance*) by acting out the meanings.	5. With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent. b. Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes). c. Identify real-life connections between words and their use (e.g., note places at home that are *cozy*). d. Distinguish shades of meaning among verbs differing in manner (e.g., *look, peek, glance, stare, glare, scowl*) and adjectives differing in intensity (e.g., *large, gigantic*) by defining or choosing them or by acting out the meanings.	5. Demonstrate understanding of word relationships and nuances in word meanings. a. Identify real-life connections between words and their use (e.g., describe foods that are *spicy* or *juicy*). b. Distinguish shades of meaning among closely related verbs (e.g., *toss, throw, hurl*) and closely related adjectives (e.g., *thin, slender, skinny, scrawny*).
6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.	6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*).	6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., *When other kids are happy that makes me happy*).

Language Standards K–5

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Grade 3 students:	Grade 4 students:	Grade 5 students:
Conventions of Standard English		
1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. b. Form and use regular and irregular plural nouns. c. Use abstract nouns (e.g., *childhood*). d. Form and use regular and irregular verbs. e. Form and use the simple (e.g., *I walked; I walk; I will walk*) verb tenses. f. Ensure subject-verb and pronoun-antecedent agreement.* g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified. h. Use coordinating and subordinating conjunctions. i. Produce simple, compound, and complex sentences.	1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*). b. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses. c. Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions. d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*). e. Form and use prepositional phrases. f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* g. Correctly use frequently confused words (e.g., *to, too, two; there, their*).*	1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. b. Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses. c. Use verb tense to convey various times, sequences, states, and conditions. d. Recognize and correct inappropriate shifts in verb tense.* e. Use correlative conjunctions (e.g., *either/or, neither/nor*).
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize appropriate words in titles. b. Use commas in addresses. c. Use commas and quotation marks in dialogue. d. Form and use possessives. e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*). f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words. g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.	2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use correct capitalization. b. Use commas and quotation marks to mark direct speech and quotations from a text. c. Use a comma before a coordinating conjunction in a compound sentence. d. Spell grade-appropriate words correctly, consulting references as needed.	2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use punctuation to separate items in a series.* b. Use a comma to separate an introductory element from the rest of the sentence. c. Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*). d. Use underlining, quotation marks, or italics to indicate titles of works. e. Spell grade-appropriate words correctly, consulting references as needed.

Language Standards K–5

Grade 3 students:	Grade 4 students:	Grade 5 students:
Knowledge of Language		
3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Choose words and phrases for effect.* b. Recognize and observe differences between the conventions of spoken and written standard English.	3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Choose words and phrases to convey ideas precisely.* b. Choose punctuation for effect.* c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).	3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.
Vocabulary Acquisition and Use		
4. Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on *grade 3 reading and content,* choosing flexibly from a range of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat*). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company, companion*). d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.	4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 4 reading and content,* choosing flexibly from a range of strategies. a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.	4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content,* choosing flexibly from a range of strategies. a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
5. Demonstrate understanding of word relationships and nuances in word meanings. a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*). b. Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*). c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*).	5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).	5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figurative language, including similes and metaphors, in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*).	6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed, whined, stammered*) and that are basic to a particular topic (e.g., *wildlife, conservation,* and *endangered* when discussing animal preservation).	6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*).

Language Progressive Skills, by Grade

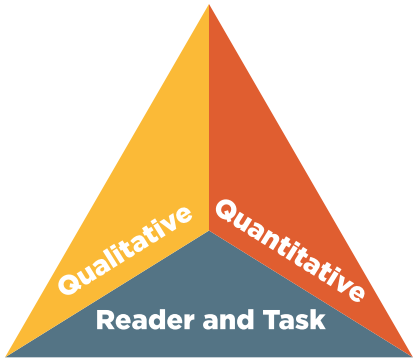
The following skills, marked with an asterisk (*) in Language standards 1–3, are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking.

Standard	Grade(s)							
	3	4	5	6	7	8	9–10	11–12
L.3.1f. Ensure subject-verb and pronoun-antecedent agreement.								
L.3.3a. Choose words and phrases for effect.								
L.4.1f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.								
L.4.1g. Correctly use frequently confused words (e.g., *to/too/two; there/their*).								
L.4.3a. Choose words and phrases to convey ideas precisely.*								
L.4.3b. Choose punctuation for effect.								
L.5.1d. Recognize and correct inappropriate shifts in verb tense.								
L.5.2a. Use punctuation to separate items in a series.†								
L.6.1c. Recognize and correct inappropriate shifts in pronoun number and person.								
L.6.1d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
L.6.1e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
L.6.2a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
L.6.3a. Vary sentence patterns for meaning, reader/listener interest, and style.‡								
L.6.3b. Maintain consistency in style and tone.								
L.7.1c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
L.7.3a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.								
L.8.1d. Recognize and correct inappropriate shifts in verb voice and mood.								
L.9–10.1a. Use parallel structure.								

*Subsumed by L.7.3a
†Subsumed by L.9–10.1a
‡Subsumed by L.11–12.3a

Standard 10: Range, Quality, and Complexity of Student Reading K–5

Measuring Text Complexity: Three Factors



Qualitative evaluation of the text: Levels of meaning, structure, language conventionality and clarity, and knowledge demands

Quantitative evaluation of the text: Readability measures and other scores of text complexity

Matching reader to text and task: Reader variables (such as motivation, knowledge, and experiences) and task variables (such as purpose and the complexity generated by the task assigned and the questions posed)

Note: More detailed information on text complexity and how it is measured is contained in Appendix A.

Range of Text Types for K–5

Students in K–5 apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.

Literature			Informational Text
Stories	**Dramas**	**Poetry**	**Literary Nonfiction and Historical, Scientific, and Technical Texts**
Includes children's adventure stories, folktales, legends, fables, fantasy, realistic fiction, and myth	Includes staged dialogue and brief familiar scenes	Includes nursery rhymes and the subgenres of the narrative poem, limerick, and free verse poem	Includes biographies and autobiographies; books about history, social studies, science, and the arts; technical texts, including directions, forms, and information displayed in graphs, charts, or maps; and digital sources on a range of topics

* Read-aloud
** Read-along

Texts Illustrating the Complexity, Quality, and Range of Student Reading K–5

	Literature: Stories, Drama, Poetry	Informational Texts: Literary Nonfiction and Historical, Scientific, and Technical Texts
K*	▪ *Over in the Meadow* by John Langstaff (traditional) (c1800)* ▪ *A Boy, a Dog, and a Frog* by Mercer Mayer (1967) ▪ *Pancakes for Breakfast* by Tomie DePaola (1978) ▪ *A Story, A Story* by Gail E. Haley (1970)* ▪ *Kitten's First Full Moon* by Kevin Henkes (2004)*	▪ *My Five Senses* by Aliki (1962)** ▪ *Truck* by Donald Crews (1980) ▪ *I Read Signs* by Tana Hoban (1987) ▪ *What Do You Do With a Tail Like This?* by Steve Jenkins and Robin Page (2003)* ▪ *Amazing Whales!* by Sarah L. Thomson (2005)*
1*	▪ "Mix a Pancake" by Christina G. Rossetti (1893)** ▪ *Mr. Popper's Penguins* by Richard Atwater (1938)* ▪ *Little Bear* by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)** ▪ *Frog and Toad Together* by Arnold Lobel (1971)** ▪ *Hi! Fly Guy* by Tedd Arnold (2006)	▪ *A Tree Is a Plant* by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)** ▪ *Starfish* by Edith Thacher Hurd (1962) ▪ *Follow the Water from Brook to Ocean* by Arthur Dorros (1991)** ▪ *From Seed to Pumpkin* by Wendy Pfeffer, illustrated by James Graham Hale (2004)* ▪ *How People Learned to Fly* by Fran Hodgkins and True Kelley (2007)*
2–3	▪ "Who Has Seen the Wind?" by Christina G. Rossetti (1893) ▪ *Charlotte's Web* by E. B. White (1952)* ▪ *Sarah, Plain and Tall* by Patricia MacLachlan (1985) ▪ *Tops and Bottoms* by Janet Stevens (1995) ▪ *Poppleton in Winter* by Cynthia Rylant, illustrated by Mark Teague (2001)	▪ *A Medieval Feast* by Aliki (1983) ▪ *From Seed to Plant* by Gail Gibbons (1991) ▪ *The Story of Ruby Bridges* by Robert Coles (1995)* ▪ *A Drop of Water: A Book of Science and Wonder* by Walter Wick (1997) ▪ *Moonshot: The Flight of Apollo 11* by Brian Floca (2009)
4–5	▪ *Alice's Adventures in Wonderland* by Lewis Carroll (1865) ▪ "Casey at the Bat" by Ernest Lawrence Thayer (1888) ▪ *The Black Stallion* by Walter Farley (1941) ▪ "Zlateh the Goat" by Isaac Bashevis Singer (1984) ▪ *Where the Mountain Meets the Moon* by Grace Lin (2009)	▪ *Discovering Mars: The Amazing Story of the Red Planet* by Melvin Berger (1992) ▪ *Hurricanes: Earth's Mightiest Storms* by Patricia Lauber (1996) ▪ *A History of US* by Joy Hakim (2005) ▪ *Horses* by Seymour Simon (2006) ▪ *Quest for the Tree Kangaroo: An Expedition to the Cloud Forest of New Guinea* by Sy Montgomery (2006)

Note: Given space limitations, the illustrative texts listed above are meant only to show individual titles that are representative of a wide range of topics and genres. (See Appendix B for excerpts of these and other texts illustrative of K–5 text complexity, quality, and range.) At a curricular or instructional level, within and across grade levels, texts need to be selected around topics or themes that generate knowledge and allow students to study those topics or themes in depth. On the next page is an example of progressions of texts building knowledge across grade levels.

*Children at the kindergarten and grade 1 levels should be expected to read texts independently that have been specifically written to correlate to their reading level and their word knowledge. Many of the titles listed above are meant to supplement carefully structured independent reading with books to read along with a teacher or that are read aloud to students to build knowledge and cultivate a joy in reading.

Staying on Topic Within a Grade and Across Grades: How to Build Knowledge Systematically in English Language Arts K–5

Building knowledge systematically in English language arts is like giving children various pieces of a puzzle in each grade that, over time, will form one big picture. At a curricular or instructional level, texts—within and across grade levels—need to be selected around topics or themes that systematically develop the knowledge base of students. Within a grade level, there should be an adequate number of titles on a single topic that would allow children to study that topic for a sustained period. The knowledge children have learned about particular topics in early grade levels should then be expanded and developed in subsequent grade levels to ensure an increasingly deeper understanding of these topics. Children in the upper elementary grades will generally be expected to read these texts independently and reflect on them in writing. However, children in the early grades (particularly K–2) should participate in rich, structured conversations with an adult in response to the written texts that are read aloud, orally comparing and contrasting as well as analyzing and synthesizing, in the manner called for by the *Standards*.

Preparation for reading complex informational texts should begin at the very earliest elementary school grades. What follows is one example that uses domain-specific nonfiction titles across grade levels to illustrate how curriculum designers and classroom teachers can infuse the English language arts block with rich, age-appropriate content knowledge and vocabulary in history/social studies, science, and the arts. Having students listen to informational read-alouds in the early grades helps lay the necessary foundation for students' reading and understanding of increasingly complex texts on their own in subsequent grades.

Exemplar Texts on a Topic Across Grades	K	1	2–3	4–5
The Human Body **Students can begin learning about the human body starting in kindergarten and then review and extend their learning during each subsequent grade.**	**The five senses and associated body parts** • *My Five Senses* by Aliki (1989) • *Hearing* by Maria Rius (1985) • *Sight* by Maria Rius (1985) • *Smell* by Maria Rius (1985) • *Taste* by Maria Rius (1985) • *Touch* by Maria Rius (1985) **Taking care of your body: Overview (hygiene, diet, exercise, rest)** • *My Amazing Body: A First Look at Health & Fitness* by Pat Thomas (2001) • *Get Up and Go!* by Nancy Carlson (2008) • *Go Wash Up* by Doering Tourville (2008) • *Sleep* by Paul Showers (1997) • *Fuel the Body* by Doering Tourville (2008)	**Introduction to the systems of the human body and associated body parts** • *Under Your Skin: Your Amazing Body* by Mick Manning (2007) • *Me and My Amazing Body* by Joan Sweeney (1999) • *The Human Body* by Gallimard Jeunesse (2007) • *The Busy Body Book* by Lizzy Rockwell (2008) • *First Encyclopedia of the Human Body* by Fiona Chandler (2004) **Taking care of your body: Germs, diseases, and preventing illness** • *Germs Make Me Sick* by Marilyn Berger (1995) • *Tiny Life on Your Body* by Christine Taylor-Butler (2005) • *Germ Stories* by Arthur Kornberg (2007) • *All About Scabs* by GenichiroYagu (1998)	**Digestive and excretory systems** • *What Happens to a Hamburger* by Paul Showers (1985) • *The Digestive System* by Christine Taylor-Butler (2008) • *The Digestive System* by Rebecca L. Johnson (2006) • *The Digestive System* by Kristin Petrie (2007) **Taking care of your body: Healthy eating and nutrition** • *Good Enough to Eat* by Lizzy Rockwell (1999) • *Showdown at the Food Pyramid* by Rex Barron (2004) **Muscular, skeletal, and nervous systems** • *The Mighty Muscular and Skeletal Systems* Crabtree Publishing (2009) • *Muscles* by Seymour Simon (1998) • *Bones* by Seymour Simon (1998) • *The Astounding Nervous System* Crabtree Publishing (2009) • *The Nervous System* by Joelle Riley (2004)	**Circulatory system** • *The Heart* by Seymour Simon (2006) • *The Heart and Circulation* by Carol Ballard (2005) • *The Circulatory System* by Kristin Petrie (2007) • *The Amazing Circulatory System* by John Burstein (2009) **Respiratory system** • *The Lungs* by Seymour Simon (2007) • *The Respiratory System* by Susan Glass (2004) • *The Respiratory System* by Kristin Petrie (2007) • *The Remarkable Respiratory System* by John Burstein (2009) **Endocrine system** • *The Endocrine System* by Rebecca Olien (2006) • *The Exciting Endocrine System* by John Burstein (2009)



STANDARDS FOR

English Language Arts

6–12

College and Career Readiness Anchor Standards for Reading

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

*Please see "Research to Build Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

Note on range and content of student reading

To become college and career ready, students must grapple with works of exceptional craft and thought whose range extends across genres, cultures, and centuries. Such works offer profound insights into the human condition and serve as models for students' own thinking and writing. Along with high-quality contemporary works, these texts should be chosen from among seminal U.S. documents, the classics of American literature, and the timeless dramas of Shakespeare. Through wide and deep reading of literature and literary nonfiction of steadily increasing sophistication, students gain a reservoir of literary and cultural knowledge, references, and images; the ability to evaluate intricate arguments; and the capacity to surmount the challenges posed by complex texts.

Reading Standards for Literature 6–12

RL

The following standards offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades. *Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.*

Grade 6 students:	Grade 7 students:	Grade 8 students:
Key Ideas and Details		
1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.	2. Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.	2. Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.
3. Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.	3. Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).	3. Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.
Craft and Structure		
4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.	4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.	4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
5. Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.	5. Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning.	5. Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.
6. Explain how an author develops the point of view of the narrator or speaker in a text.	6. Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.	6. Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.

Reading Standards for Literature 6–12

RL

Grade 6 students:	Grade 7 students:	Grade 8 students:
Integration of Knowledge and Ideas		
7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch.	7. Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).	7. Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.
8. (Not applicable to literature)	8. (Not applicable to literature)	8. (Not applicable to literature)
9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.	9. Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.	9. Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.
Range of Reading and Level of Text Complexity		
10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6–8 text complexity band independently and proficiently.

Reading Standards for Literature 6–12

RL

The CCR anchor standards and high school grade-specific standards work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details	
1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
2. Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	2. Determine two or more themes or central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; provide an objective summary of the text.
3. Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.	3. Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed).
Craft and Structure	
4. Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).	4. Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful. (Include Shakespeare as well as other authors.)
5. Analyze how an author's choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.	5. Analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.
6. Analyze a particular point of view or cultural experience reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.	6. Analyze a case in which grasping point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement).
Integration of Knowledge and Ideas	
7. Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment (e.g., Auden's "Musée des Beaux Arts" and Breughel's *Landscape with the Fall of Icarus*).	7. Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text. (Include at least one play by Shakespeare and one play by an American dramatist.)
8. (Not applicable to literature)	8. (Not applicable to literature)
9. Analyze how an author draws on and transforms source material in a specific work (e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare).	9. Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics.
Range of Reading and Level of Text Complexity	
10. By the end of grade 9, read and comprehend literature, including stories, dramas, and poems, in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 10, read and comprehend literature, including stories, dramas, and poems, at the high end of the grades 9–10 text complexity band independently and proficiently.	10. By the end of grade 11, read and comprehend literature, including stories, dramas, and poems, in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 12, read and comprehend literature, including stories, dramas, and poems, at the high end of the grades 11–CCR text complexity band independently and proficiently.

Reading Standards for Informational Text 6–12

RI

Grade 6 students:	Grade 7 students:	Grade 8 students:
Key Ideas and Details		
1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.	2. Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.	2. Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).	3. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).	3. Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).
Craft and Structure		
4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.	4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.	4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
5. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.	5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.	5. Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.
6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.	6. Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.	6. Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.
Integration of Knowledge and Ideas		
7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.	7. Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).	7. Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.	8. Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.	8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
9. Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).	9. Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.	9. Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.
Range of Reading and Level of Text Complexity		
10. By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend literary nonfiction at the high end of the grades 6–8 text complexity band independently and proficiently.

Reading Standards for Informational Text 6–12

RI

The CCR anchor standards and high school grade-specific standards work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details	
1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
2. Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	2. Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.
3. Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.	3. Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.
Craft and Structure	
4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).	4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).
5. Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).	5. Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.
6. Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.	6. Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text.
Integration of Knowledge and Ideas	
7. Analyze various accounts of a subject told in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account.	7. Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.
8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.	8. Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning (e.g., in U.S. Supreme Court majority opinions and dissents) and the premises, purposes, and arguments in works of public advocacy (e.g., *The Federalist,* presidential addresses).
9. Analyze seminal U.S. documents of historical and literary significance (e.g., Washington's Farewell Address, the Gettysburg Address, Roosevelt's Four Freedoms speech, King's "Letter from Birmingham Jail"), including how they address related themes and concepts.	9. Analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary significance (including The Declaration of Independence, the Preamble to the Constitution, the Bill of Rights, and Lincoln's Second Inaugural Address) for their themes, purposes, and rhetorical features.
Range of Reading and Level of Text Complexity	
10. By the end of grade 9, read and comprehend literary nonfiction in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 10, read and comprehend literary nonfiction at the high end of the grades 9–10 text complexity band independently and proficiently.	10. By the end of grade 11, read and comprehend literary nonfiction in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 12, read and comprehend literary nonfiction at the high end of the grades 11–CCR text complexity band independently and proficiently.

College and Career Readiness Anchor Standards for Writing

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Text Types and Purposes*

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

*These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.

Note on range and content of student writing

For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college- and career-ready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to know how to combine elements of different kinds of writing—for example, to use narrative strategies within argument and explanation within narrative—to produce complex and nuanced writing. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become adept at gathering information, evaluating sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline as well as the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it.

Writing Standards 6–12

W

The following standards for grades 6–12 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas, and they should address increasingly demanding content and sources. *Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.* The expected growth in student writing ability is reflected both in the standards themselves and in the collection of annotated student writing samples in Appendix C.

Grade 6 students:	Grade 7 students:	Grade 8 students:
Text Types and Purposes		
1. Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s) and organize the reasons and evidence clearly. b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from the argument presented.	1. Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.	1. Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.
2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.	2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

Writing Standards 6–12

Grade 6 students:	Grade 7 students:	Grade 8 students:
Text Types and Purposes (continued)		
3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. e. Provide a conclusion that follows from and reflects on the narrated experiences or events.	3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events. d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. e. Provide a conclusion that follows from and reflects on the narrated experiences or events.
Production and Distribution of Writing		
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 6 on page 52.)	5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 7 on page 52.)	5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 8 on page 52.)
6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.	6. Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.	6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.

Writing Standards 6–12

Grade 6 students:	Grade 7 students:	Grade 8 students:
Research to Build and Present Knowledge		
7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	7. Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
8. Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.	8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"). b. Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not").	9. Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 7 Reading standards* to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history"). b. Apply *grade 7 Reading standards* to literary nonfiction (e.g. "Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims").	9. Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 8 Reading standards* to literature (e.g., "Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new"). b. Apply *grade 8 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced").
Range of Writing		
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Writing Standards 6–12

The CCR anchor standards and high school grade-specific standards work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes	
1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns. c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from and supports the argument presented.	1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases. c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from and supports the argument presented.
2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language and domain-specific vocabulary to manage the complexity of the topic. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. a. Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

Writing Standards 6–12

W

Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes (continued)	
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences. a. Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events. b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters. c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole. d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters. e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.	3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences. a. Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events. b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters. c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution). d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters. e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.
Production and Distribution of Writing	
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 9–10 on page 54.)	5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 11–12 on page 54.)
6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.	6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
Research to Build and Present Knowledge	
7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

Writing Standards 6–12

Grades 9–10 students:	Grades 11–12 students:
Research to Build and Present Knowledge (continued)	
9. Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grades 9–10 Reading standards* to literature (e.g., "Analyze how an author draws on and transforms source material in a specific work [e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare]"). b. Apply *grades 9–10 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning").	9. Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grades 11–12 Reading standards* to literature (e.g., "Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics"). b. Apply *grades 11–12 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning [e.g., in U.S. Supreme Court Case majority opinions and dissents] and the premises, purposes, and arguments in works of public advocacy [e.g., *The Federalist*, presidential addresses]").
Range of Writing	
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

College and Career Readiness Anchor Standards for Speaking and Listening

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

Note on range and content of student speaking and listening

To become college and career ready, students must have ample opportunities to take part in a variety of rich, structured conversations—as part of a whole class, in small groups, and with a partner—built around important content in various domains. They must be able to contribute appropriately to these conversations, to make comparisons and contrasts, and to analyze and synthesize a multitude of ideas in accordance with the standards of evidence appropriate to a particular discipline. Whatever their intended major or profession, high school graduates will depend heavily on their ability to listen attentively to others so that they are able to build on others' meritorious ideas while expressing their own clearly and persuasively.

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. The Internet has accelerated the speed at which connections between speaking, listening, reading, and writing can be made, requiring that students be ready to use these modalities nearly simultaneously. Technology itself is changing quickly, creating a new urgency for students to be adaptable in response to change.

Speaking and Listening Standards 6–12

SL

The following standards for grades 6–12 offer a focus for instruction in each year to help ensure that students gain adequate mastery of a range of skills and applications. *Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.*

Grade 6 students:	Grade 7 students:	Grade 8 students:
Comprehension and Collaboration		
1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 6 topics, texts, and issues*, building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 7 topics, texts, and issues,* building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 8 topics, texts, and issues,* building on others' ideas and expressing their own clearly. a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.
2. Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.	2. Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.	2. Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.
3. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.	3. Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.	3. Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.
Presentation of Knowledge and Ideas		
4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	4. Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	4. Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.
5. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	5. Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	5. Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.
6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 6 Language standards 1 and 3 on page 52 for specific expectations.)	6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 7 Language standards 1 and 3 on page 52 for specific expectations.)	6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 8 Language standards 1 and 3 on page 52 for specific expectations.)

Speaking and Listening Standards 6–12

SL

The CCR anchor standards and high school grade-specific standards work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 9–10 students:	Grades 11–12 students:
Comprehension and Collaboration	
1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9–10 topics, texts, and issues,* building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 11–12 topics, texts, and issues,* building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
2. Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.	2. Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.	3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.
Presentation of Knowledge and Ideas	
4. Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
5. Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	5. Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grades 9–10 Language standards 1 and 3 on pages 54 for specific expectations.)	6. Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate. (See grades 11–12 Language standards 1 and 3 on page 54 for specific expectations.)

College and Career Readiness Anchor Standards for Language

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Note on range and content of student language use

To be college and career ready in language, students must have firm control over the conventions of standard English. At the same time, they must come to appreciate that language is as at least as much a matter of craft as of rules and be able to choose words, syntax, and punctuation to express themselves and achieve particular functions and rhetorical effects. They must also have extensive vocabularies, built through reading and study, enabling them to comprehend complex texts and engage in purposeful writing about and conversations around content. They need to become skilled in determining or clarifying the meaning of words and phrases they encounter, choosing flexibly from an array of strategies to aid them. They must learn to see an individual word as part of a network of other words—words, for example, that have similar denotations but different connotations. The inclusion of Language standards in their own strand should not be taken as an indication that skills related to conventions, effective language use, and vocabulary are unimportant to reading, writing, speaking, and listening; indeed, they are inseparable from such contexts.

Language Standards 6–12

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The following standards for grades 6–12 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. *Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.* Beginning in grade 3, skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (*). See the table on page 56 for a complete listing and Appendix A for an example of how these skills develop in sophistication.

Grade 6 students:	Grade 7 students:	Grade 8 students:
Conventions of Standard English		
1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Ensure that pronouns are in the proper case (subjective, objective, possessive). b. Use intensive pronouns (e.g., *myself, ourselves*). c. Recognize and correct inappropriate shifts in pronoun number and person.* d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.*	1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of phrases and clauses in general and their function in specific sentences. b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas. c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.*	1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences. b. Form and use verbs in the active and passive voice. c. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood. d. Recognize and correct inappropriate shifts in verb voice and mood.*
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.* b. Spell correctly.	2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore an old[,] green shirt*). b. Spell correctly.	2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use punctuation (comma, ellipsis, dash) to indicate a pause or break. b. Use an ellipsis to indicate an omission. c. Spell correctly.
Knowledge of Language		
3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Vary sentence patterns for meaning, reader/listener interest, and style.* b. Maintain consistency in style and tone.*	3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.*	3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).

Language Standards 6–12

Grade 6 students:	Grade 7 students:	Grade 8 students:
Vocabulary Acquisition and Use		
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 6 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).	4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 7 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *belligerent, bellicose, rebel*). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).	4. Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on *grade 8 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *precede, recede, secede*). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., personification) in context. b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy, scrimping, economical, unwasteful, thrifty*).	5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *refined, respectful, polite, diplomatic, condescending*).	5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g. verbal irony, puns) in context. b. Use the relationship between particular words to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *bullheaded, willful, firm, persistent, resolute*).
6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Language Standards 6–12

The CCR anchor standards and high school grade-specific standards work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 9–10 students:	Grades 11–12 students:
Conventions of Standard English	
1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Use parallel structure.* b. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to convey specific meanings and add variety and interest to writing or presentations.	1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested. b. Resolve issues of complex or contested usage, consulting references (e.g., *Merriam-Webster's Dictionary of English Usage, Garner's Modern American Usage*) as needed.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses. b. Use a colon to introduce a list or quotation. c. Spell correctly.	2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Observe hyphenation conventions. b. Spell correctly.
Knowledge of Language	
3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening. a. Write and edit work so that it conforms to the guidelines in a style manual (e.g., *MLA Handbook*, Turabian's *Manual for Writers*) appropriate for the discipline and writing type.	3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening. a. Vary syntax for effect, consulting references (e.g., Tufte's *Artful Sentences*) for guidance as needed; apply an understanding of syntax to the study of complex texts when reading.

Language Standards 6–12

Grades 9–10 students:	Grades 11–12 students:
Vocabulary Acquisition and Use	
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., *analyze, analysis, analytical; advocate, advocacy*). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).	4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., *conceive, conception, conceivable*). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, its etymology, or its standard usage. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text. b. Analyze nuances in the meaning of words with similar denotations.	5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text. b. Analyze nuances in the meaning of words with similar denotations.
6. Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	6. Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Language Progressive Skills, by Grade

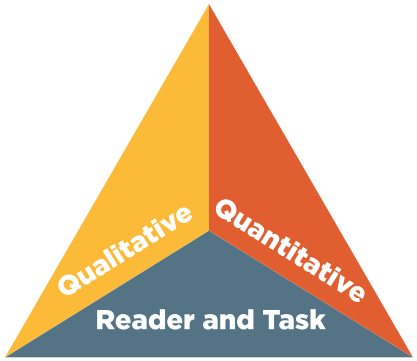
The following skills, marked with an asterisk (*) in Language standards 1–3, are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking.

Standard	Grade(s)							
	3	4	5	6	7	8	9–10	11–12
L.3.1f. Ensure subject-verb and pronoun-antecedent agreement.								
L.3.3a. Choose words and phrases for effect.								
L.4.1f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.								
L.4.1g. Correctly use frequently confused words (e.g., *to/too/two; there/their*).								
L.4.3a. Choose words and phrases to convey ideas precisely.*								
L.4.3b. Choose punctuation for effect.								
L.5.1d. Recognize and correct inappropriate shifts in verb tense.								
L.5.2a. Use punctuation to separate items in a series.†								
L.6.1c. Recognize and correct inappropriate shifts in pronoun number and person.								
L.6.1d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
L.6.1e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
L.6.2a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
L.6.3a. Vary sentence patterns for meaning, reader/listener interest, and style.‡								
L.6.3b. Maintain consistency in style and tone.								
L.7.1c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
L.7.3a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.								
L.8.1d. Recognize and correct inappropriate shifts in verb voice and mood.								
L.9–10.1a. Use parallel structure.								

* Subsumed by L.7.3a
† Subsumed by L.9–10.1a
‡ Subsumed by L.11–12.3a

Standard 10: Range, Quality, and Complexity of Student Reading 6–12

Measuring Text Complexity: Three Factors



Qualitative evaluation of the text: Levels of meaning, structure, language conventionality and clarity, and knowledge demands

Quantitative evaluation of the text: Readability measures and other scores of text complexity

Matching reader to text and task: Reader variables (such as motivation, knowledge, and experiences) and task variables (such as purpose and the complexity generated by the task assigned and the questions posed)

Note: More detailed information on text complexity and how it is measured is contained in Appendix A.

Range of Text Types for 6–12

Students in grades 6–12 apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.

Literature			Informational Text
Stories	**Drama**	**Poetry**	**Literary Nonfiction**
Includes the subgenres of adventure stories, historical fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels	Includes one-act and multi-act plays, both in written form and on film	Includes the subgenres of narrative poems, lyrical poems, free verse poems, sonnets, odes, ballads, and epics	Includes the subgenres of exposition, argument, and functional text in the form of personal essays, speeches, opinion pieces, essays about art or literature, biographies, memoirs, journalism, and historical, scientific, technical, or economic accounts (including digital sources) written for a broad audience

Texts Illustrating the Complexity, Quality, and Range of Student Reading 6–12

	Literature: Stories, Dramas, Poetry	Informational Texts: Literary Nonfiction
6–8	▪ *Little Women* by Louisa May Alcott (1869) ▪ *The Adventures of Tom Sawyer* by Mark Twain (1876) ▪ "The Road Not Taken" by Robert Frost (1915) ▪ *The Dark Is Rising* by Susan Cooper (1973) ▪ *Dragonwings* by Laurence Yep (1975) ▪ *Roll of Thunder, Hear My Cry* by Mildred Taylor (1976)	▪ "Letter on Thomas Jefferson" by John Adams (1776) ▪ *Narrative of the Life of Frederick Douglass, an American Slave* by Frederick Douglass (1845) ▪ "Blood, Toil, Tears and Sweat: Address to Parliament on May 13th, 1940" by Winston Churchill (1940) ▪ *Harriet Tubman: Conductor on the Underground Railroad* by Ann Petry (1955) ▪ *Travels with Charley: In Search of America* by John Steinbeck (1962)
9–10	▪ *The Tragedy of Macbeth* by William Shakespeare (1592) ▪ "Ozymandias" by Percy Bysshe Shelley (1817) ▪ "The Raven" by Edgar Allan Poe (1845) ▪ "The Gift of the Magi" by O. Henry (1906) ▪ *The Grapes of Wrath* by John Steinbeck (1939) ▪ *Fahrenheit 451* by Ray Bradbury (1953) ▪ *The Killer Angels* by Michael Shaara (1975)	▪ "Speech to the Second Virginia Convention" by Patrick Henry (1775) ▪ "Farewell Address" by George Washington (1796) ▪ "Gettysburg Address" by Abraham Lincoln (1863) ▪ "State of the Union Address" by Franklin Delano Roosevelt (1941) ▪ "Letter from Birmingham Jail" by Martin Luther King, Jr. (1964) ▪ "Hope, Despair and Memory" by Elie Wiesel (1997)
11–CCR	▪ "Ode on a Grecian Urn" by John Keats (1820) ▪ *Jane Eyre* by Charlotte Brontë (1848) ▪ "Because I Could Not Stop for Death" by Emily Dickinson (1890) ▪ *The Great Gatsby* by F. Scott Fitzgerald (1925) ▪ *Their Eyes Were Watching God* by Zora Neale Hurston (1937) ▪ *A Raisin in the Sun* by Lorraine Hansberry (1959) ▪ *The Namesake* by Jhumpa Lahiri (2003)	▪ *Common Sense* by Thomas Paine (1776) ▪ *Walden* by Henry David Thoreau (1854) ▪ "Society and Solitude" by Ralph Waldo Emerson (1857) ▪ "The Fallacy of Success" by G. K. Chesterton (1909) ▪ *Black Boy* by Richard Wright (1945) ▪ "Politics and the English Language" by George Orwell (1946) ▪ "Take the Tortillas Out of Your Poetry" by Rudolfo Anaya (1995)

Note: Given space limitations, the illustrative texts listed above are meant only to show individual titles that are representative of a range of topics and genres. (See Appendix B for excerpts of these and other texts illustrative of grades 6–12 text complexity, quality, and range.) At a curricular or instructional level, within and across grade levels, texts need to be selected around topics or themes that generate knowledge and allow students to study those topics or themes in depth.



STANDARDS FOR

Literacy in History/Social Studies, Science, and Technical Subjects

6–12

College and Career Readiness Anchor Standards for Reading

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade span. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, or ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

*Please see "Research to Build and Present Knowledge" in Writing for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

Note on range and content of student reading

Reading is critical to building knowledge in history/social studies as well as in science and technical subjects. College and career ready reading in these fields requires an appreciation of the norms and conventions of each discipline, such as the kinds of evidence used in history and science; an understanding of domain-specific words and phrases; an attention to precise details; and the capacity to evaluate intricate arguments, synthesize complex information, and follow detailed descriptions of events and concepts. In history/social studies, for example, students need to be able to analyze, evaluate, and differentiate primary and secondary sources. When reading scientific and technical texts, students need to be able to gain knowledge from challenging texts that often make extensive use of elaborate diagrams and data to convey information and illustrate concepts. Students must be able to read complex informational texts in these fields with independence and confidence because the vast majority of reading in college and workforce training programs will be sophisticated nonfiction. It is important to note that these Reading standards are meant to complement the specific content demands of the disciplines, not replace them.

Reading Standards for Literacy in History/Social Studies 6–12

RH

The standards below begin at grade 6; standards for K–5 reading in history/social studies, science, and technical subjects are integrated into the K–5 Reading standards. The CCR anchor standards and high school standards in literacy work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of primary and secondary sources.	1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.	1. Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
3. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).	3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.	3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
Craft and Structure		
4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.	4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies.	4. Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).
5. Describe how a text presents information (e.g., sequentially, comparatively, causally).	5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.	5. Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.
6. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).	6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.	6. Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.
Integration of Knowledge and Ideas		
7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.	7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.	7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
8. Distinguish among fact, opinion, and reasoned judgment in a text.	8. Assess the extent to which the reasoning and evidence in a text support the author's claims.	8. Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.
9. Analyze the relationship between a primary and secondary source on the same topic.	9. Compare and contrast treatments of the same topic in several primary and secondary sources.	9. Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.
Range of Reading and Level of Text Complexity		
10. By the end of grade 8, read and comprehend history/social studies texts in the grades 6–8 text complexity band independently and proficiently.	10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9–10 text complexity band independently and proficiently.	10. By the end of grade 12, read and comprehend history/social studies texts in the grades 11–CCR text complexity band independently and proficiently.

Reading Standards for Literacy in Science and Technical Subjects 6–12

RST

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of science and technical texts.	1. Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	1. Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.	2. Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	2. Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
Craft and Structure		
4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 6–8 texts and topics.*	4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 9–10 texts and topics*.	4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 11–12 texts and topics*.
5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.	5. Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., *force, friction, reaction force, energy*).	5. Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.	6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.
Integration of Knowledge and Ideas		
7. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).	7. Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
8. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	8. Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.	8. Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	9. Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	9. Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
Range of Reading and Level of Text Complexity		
10. By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.	10. By the end of grade 10, read and comprehend science/technical texts in the grades 9–10 text complexity band independently and proficiently.	10. By the end of grade 12, read and comprehend science/technical texts in the grades 11–CCR text complexity band independently and proficiently.

College and Career Readiness Anchor Standards for Writing

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade span. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Text Types and Purposes*

1. Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

*These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.

Note on range and content of student writing

For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college and career ready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become adept at gathering information, evaluating sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline and the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and long time frames throughout the year.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12

WHST

The standards below begin at grade 6; standards for K–5 writing in history/social studies, science, and technical subjects are integrated into the K–5 Writing standards. The CCR anchor standards and high school standards in literacy work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes		
1. Write arguments focused on *discipline-specific content*. a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.	1. Write arguments focused on *discipline-specific content.* a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns. c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from or supports the argument presented.	1. Write arguments focused on *discipline-specific content.* a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from or supports the argument presented.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12

WHST

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes (continued)		
2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style and objective tone. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.	2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers. e. Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).
3. (See note; not applicable as a separate requirement)	3. (See note; not applicable as a separate requirement)	3. (See note; not applicable as a separate requirement)

Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historical import. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12

WHST

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Production and Distribution of Writing		
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.	5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.	6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.	6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
Research to Build and Present Knowledge		
7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
9. Draw evidence from informational texts to support analysis reflection, and research.	9. Draw evidence from informational texts to support analysis, reflection, and research.	9. Draw evidence from informational texts to support analysis, reflection, and research.
Range of Writing		
10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

COMMON CORE STATE STANDARDS FOR

Mathematics



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Introduction

Toward greater focus and coherence

> *Mathematics experiences in early childhood settings should concentrate on (1) number (which includes whole number, operations, and relations) and (2) geometry, spatial relations, and measurement, with more mathematics learning time devoted to number than to other topics. Mathematical process goals should be integrated in these content areas.*
>
> — Mathematics Learning in Early Childhood, National Research Council, 2009

> *The composite standards [of Hong Kong, Korea and Singapore] have a number of features that can inform an international benchmarking process for the development of K–6 mathematics standards in the U.S. First, the composite standards concentrate the early learning of mathematics on the number, measurement, and geometry strands with less emphasis on data analysis and little exposure to algebra. The Hong Kong standards for grades 1–3 devote approximately half the targeted time to numbers and almost all the time remaining to geometry and measurement.*
>
> — Ginsburg, Leinwand and Decker, 2009

> *Because the mathematics concepts in [U.S.] textbooks are often weak, the presentation becomes more mechanical than is ideal. We looked at both traditional and non-traditional textbooks used in the US and found this conceptual weakness in both.*
>
> — Ginsburg et al., 2005

> *There are many ways to organize curricula. The challenge, now rarely met, is to avoid those that distort mathematics and turn off students.*
>
> — Steen, 2007

For over a decade, research studies of mathematics education in high-performing countries have pointed to the conclusion that the mathematics curriculum in the United States must become substantially more focused and coherent in order to improve mathematics achievement in this country. To deliver on the promise of common standards, the standards must address the problem of a curriculum that is "a mile wide and an inch deep." These Standards are a substantial answer to that challenge.

It is important to recognize that "fewer standards" are no substitute for focused standards. Achieving "fewer standards" would be easy to do by resorting to broad, general statements. Instead, these Standards aim for clarity and specificity.

Assessing the coherence of a set of standards is more difficult than assessing their focus. William Schmidt and Richard Houang (2002) have said that content standards and curricula are coherent if they are:

> *articulated over time as a sequence of topics and performances that are logical and reflect, where appropriate, the sequential or hierarchical nature of the disciplinary content from which the subject matter derives. That is, what and how students are taught should reflect not only the topics that fall within a certain academic discipline, **but also the key ideas** that determine how knowledge is organized and generated within that discipline. This implies*

> *that to be coherent, a set of content standards must evolve from particulars (e.g., the meaning and operations of whole numbers, including simple math facts and routine computational procedures associated with whole numbers and fractions) to deeper structures inherent in the discipline. These deeper structures then serve as a means for connecting the particulars (such as an understanding of the rational number system and its properties).* (emphasis added)

These Standards endeavor to follow such a design, not only by stressing conceptual understanding of key ideas, but also by continually returning to organizing principles such as place value or the properties of operations to structure those ideas.

In addition, the "sequence of topics and performances" that is outlined in a body of mathematics standards must also respect what is known about how students learn. As Confrey (2007) points out, developing "sequenced obstacles and challenges for students…absent the insights about meaning that derive from careful study of learning, would be unfortunate and unwise." In recognition of this, the development of these Standards began with research-based learning progressions detailing what is known today about how students' mathematical knowledge, skill, and understanding develop over time.

Understanding mathematics

These Standards define what students should understand and be able to do in their study of mathematics. Asking a student to understand something means asking a teacher to assess whether the student has understood it. But what does mathematical understanding look like? One hallmark of mathematical understanding is the ability to justify, in a way appropriate to the student's mathematical maturity, *why* a particular mathematical statement is true or where a mathematical rule comes from. There is a world of difference between a student who can summon a mnemonic device to expand a product such as $(a + b)(x + y)$ and a student who can explain where the mnemonic comes from. The student who can explain the rule understands the mathematics, and may have a better chance to succeed at a less familiar task such as expanding $(a + b + c)(x + y)$. Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness.

The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post-school lives. The Standards should be read as allowing for the widest possible range of students to participate fully from the outset, along with appropriate accommodations to ensure maximum participaton of students with special education needs. For example, for students with disabilities reading should allow for use of Braille, screen reader technology, or other assistive devices, while writing should include the use of a scribe, computer, or speech-to-text technology. In a similar vein, speaking and listening should be interpreted broadly to include sign language. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and achievement levels of students in any given classroom. However, the Standards do provide clear signposts along the way to the goal of college and career readiness for all students.

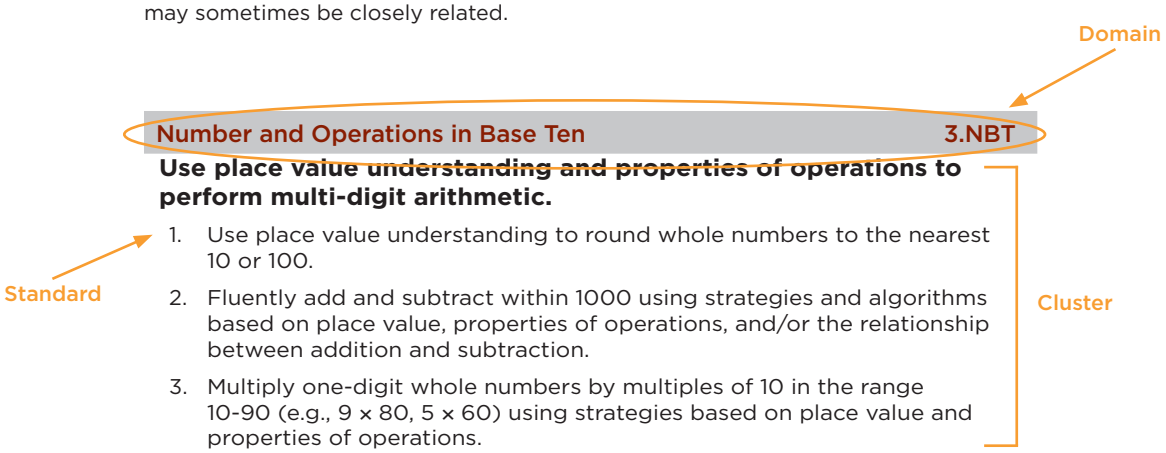
The Standards begin on page 6 with eight Standards for Mathematical Practice.

How to read the grade level standards

Standards define what students should understand and be able to do.

Clusters are groups of related standards. Note that standards from different clusters may sometimes be closely related, because mathematics is a connected subject.

Domains are larger groups of related standards. Standards from different domains may sometimes be closely related.



These Standards do not dictate curriculum or teaching methods. For example, just because topic A appears before topic B in the standards for a given grade, it does not necessarily mean that topic A must be taught before topic B. A teacher might prefer to teach topic B before topic A, or might choose to highlight connections by teaching topic A and topic B at the same time. Or, a teacher might prefer to teach a topic of his or her own choosing that leads, as a byproduct, to students reaching the standards for topics A and B.

What students can learn at any particular grade level depends upon what they have learned before. Ideally then, each standard in this document might have been phrased in the form, "Students who already know … should next come to learn …." But at present this approach is unrealistic—not least because existing education research cannot specify all such learning pathways. Of necessity therefore, grade placements for specific topics have been made on the basis of state and international comparisons and the collective experience and collective professional judgment of educators, researchers and mathematicians. One promise of common state standards is that over time they will allow research on learning progressions to inform and improve the design of standards to a much greater extent than is possible today. Learning opportunities will continue to vary across schools and school systems, and educators should make every effort to meet the needs of individual students based on their current understanding.

These Standards are not intended to be new names for old ways of doing business. They are a call to take the next step. It is time for states to work together to build on lessons learned from two decades of standards based reforms. It is time to recognize that standards are not just promises to our children, but promises we intend to keep.

Mathematics | Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy).

1 Make sense of problems and persevere in solving them.
Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

2 Reason abstractly and quantitatively.
Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

3 Construct viable arguments and critique the reasoning of others.
Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions,

communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

4 Model with mathematics.
Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

5 Use appropriate tools strategically.
Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

6 Attend to precision.
Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

7 Look for and make use of structure.
Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7 × 8 equals the well remembered 7 × 5 + 7 × 3, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2 × 7 and the 9 as 2 + 7. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

8 Look for and express regularity in repeated reasoning.
Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content
The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction.

The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word "understand" are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices.

In this respect, those content standards which set an expectation of understanding are potential "points of intersection" between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.

Mathematics | Kindergarten

In Kindergarten, instructional time should focus on two critical areas: (1) representing, relating, and operating on whole numbers, initially with sets of objects; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

(1) Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as 5 + 2 = 7 and 7 – 2 = 5. (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.

(2) Students describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They identify, name, and describe basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

Grade K Overview

Counting and Cardinality

- **Know number names and the count sequence.**
- **Count to tell the number of objects.**
- **Compare numbers.**

Operations and Algebraic Thinking

- **Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**

Number and Operations in Base Ten

- **Work with numbers 11–19 to gain foundations for place value.**

Measurement and Data

- **Describe and compare measurable attributes.**
- **Classify objects and count the number of objects in categories.**

Geometry

- **Identify and describe shapes.**
- **Analyze, compare, create, and compose shapes.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Counting and Cardinality K.CC

Know number names and the count sequence.

1. Count to 100 by ones and by tens.
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Count to tell the number of objects.

4. Understand the relationship between numbers and quantities; connect counting to cardinality.
   a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
   b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
   c. Understand that each successive number name refers to a quantity that is one larger.
5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.[1]
7. Compare two numbers between 1 and 10 presented as written numerals.

Operations and Algebraic Thinking K.OA

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1. Represent addition and subtraction with objects, fingers, mental images, drawings[2], sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
5. Fluently add and subtract within 5.

[1]Include groups with up to ten objects.
[2]Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

Number and Operations in Base Ten — K.NBT

Work with numbers 11–19 to gain foundations for place value.

1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Measurement and Data — K.MD

Describe and compare measurable attributes.

1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
2. Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*

Classify objects and count the number of objects in each category.

3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.[3]

Geometry — K.G

Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.
2. Correctly name shapes regardless of their orientations or overall size.
3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

Analyze, compare, create, and compose shapes.

4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).
5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
6. Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*

[3]Limit category counts to be less than or equal to 10.

Mathematics | Grade 1

In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

(1) Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. They use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two). They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the relationship between addition and subtraction.

(2) Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10. They compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.

(3) Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement.[1]

(4) Students compose and decompose plane or solid figures (e.g., put two triangles together to make a quadrilateral) and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, they recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different, to develop the background for measurement and for initial understandings of properties such as congruence and symmetry.

[1]Students should apply the principle of transitivity of measurement to make indirect comparisons, but they need not use this technical term.

Grade 1 Overview

Operations and Algebraic Thinking

- **Represent and solve problems involving addition and subtraction.**
- **Understand and apply properties of operations and the relationship between addition and subtraction.**
- **Add and subtract within 20.**
- **Work with addition and subtraction equations.**

Number and Operations in Base Ten

- **Extend the counting sequence.**
- **Understand place value.**
- **Use place value understanding and properties of operations to add and subtract.**

Measurement and Data

- **Measure lengths indirectly and by iterating length units.**
- **Tell and write time.**
- **Represent and interpret data.**

Geometry

- **Reason with shapes and their attributes.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Operations and Algebraic Thinking 1.OA

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[2]
2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

3. Apply properties of operations as strategies to add and subtract.[3] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)*
4. Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

Add and subtract within 20.

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Work with addition and subtraction equations.

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.*
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.*

Number and Operations in Base Ten 1.NBT

Extend the counting sequence.

1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

Understand place value.

2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
   a. 10 can be thought of as a bundle of ten ones — called a "ten."
   b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
   c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

[2]See Glossary, Table 1.
[3]Students need not use formal terms for these properties.

3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

Use place value understanding and properties of operations to add and subtract.

4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Measurement and Data 1.MD

Measure lengths indirectly and by iterating length units.

1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.
2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

Tell and write time.

3. Tell and write time in hours and half-hours using analog and digital clocks.

Represent and interpret data.

4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Geometry 1.G

Reason with shapes and their attributes.

1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.[4]
3. Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

[4]Students do not need to learn formal names such as "right rectangular prism."

Mathematics | Grade 2

In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

(1) Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones (e.g., 853 is 8 hundreds + 5 tens + 3 ones).

(2) Students use their understanding of addition to develop fluency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.

(3) Students recognize the need for standard units of measure (centimeter and inch) and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units. They recognize that the smaller the unit, the more iterations they need to cover a given length.

(4) Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

Grade 2 Overview

Operations and Algebraic Thinking

- **Represent and solve problems involving addition and subtraction.**
- **Add and subtract within 20.**
- **Work with equal groups of objects to gain foundations for multiplication.**

Number and Operations in Base Ten

- **Understand place value.**
- **Use place value understanding and properties of operations to add and subtract.**

Measurement and Data

- **Measure and estimate lengths in standard units.**
- **Relate addition and subtraction to length.**
- **Work with time and money.**
- **Represent and interpret data.**

Geometry

- **Reason with shapes and their attributes.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Operations and Algebraic Thinking 2.OA

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.[1]

Add and subtract within 20.

2. Fluently add and subtract within 20 using mental strategies.[2] By end of Grade 2, know from memory all sums of two one-digit numbers.

Work with equal groups of objects to gain foundations for multiplication.

3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

Number and Operations in Base Ten 2.NBT

Understand place value.

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
   a. 100 can be thought of as a bundle of ten tens — called a "hundred."
   b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
2. Count within 1000; skip-count by 5s, 10s, and 100s.
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

Use place value understanding and properties of operations to add and subtract.

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
9. Explain why addition and subtraction strategies work, using place value and the properties of operations.[3]

[1]See Glossary, Table 1.
[2]See standard 1.OA.6 for a list of mental strategies.
[3]Explanations may be supported by drawings or objects.

Measurement and Data 2.MD

Measure and estimate lengths in standard units.

1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
2. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
3. Estimate lengths using units of inches, feet, centimeters, and meters.
4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Relate addition and subtraction to length.

5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Work with time and money.

7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*

Represent and interpret data.

9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems[4] using information presented in a bar graph.

Geometry 2.G

Reason with shapes and their attributes.

1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.[5] Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

[4]See Glossary, Table 1.
[5]Sizes are compared directly or visually, not compared by measuring.

Mathematics | Grade 3

In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

(1) Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.

(2) Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole. For example, 1/2 of the paint in a small bucket could be less paint than 1/3 of the paint in a larger bucket, but 1/3 of a ribbon is longer than 1/5 of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.

(3) Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same-size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area. Students understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area to multiplication, and justify using multiplication to determine the area of a rectangle.

(4) Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

Grade 3 Overview

Operations and Algebraic Thinking

- **Represent and solve problems involving multiplication and division.**
- **Understand properties of multiplication and the relationship between multiplication and division.**
- **Multiply and divide within 100.**
- **Solve problems involving the four operations, and identify and explain patterns in arithmetic.**

Number and Operations in Base Ten

- **Use place value understanding and properties of operations to perform multi-digit arithmetic.**

Number and Operations—Fractions

- **Develop understanding of fractions as numbers.**

Measurement and Data

- **Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**
- **Represent and interpret data.**
- **Geometric measurement: understand concepts of area and relate area to multiplication and to addition.**
- **Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.**

Geometry

- **Reason with shapes and their attributes.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Operations and Algebraic Thinking 3.OA

Represent and solve problems involving multiplication and division.

1. Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7.*
2. Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.*
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.[1]
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.*

Understand properties of multiplication and the relationship between multiplication and division.

5. Apply properties of operations as strategies to multiply and divide.[2] *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)*
6. Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.*

Multiply and divide within 100.

7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.[3]
9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

[1]See Glossary, Table 2.
[2]Students need not use formal terms for these properties.
[3]This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

Number and Operations in Base Ten 3.NBT

Use place value understanding and properties of operations to perform multi-digit arithmetic.[4]

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

Number and Operations—Fractions[5] 3.NF

Develop understanding of fractions as numbers.

1. Understand a fraction 1/*b* as the quantity formed by 1 part when a whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by *a* parts of size 1/*b*.
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
   a. Represent a fraction 1/*b* on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts. Recognize that each part has size 1/*b* and that the endpoint of the part based at 0 locates the number 1/*b* on the number line.
   b. Represent a fraction *a*/*b* on a number line diagram by marking off *a* lengths 1/*b* from 0. Recognize that the resulting interval has size *a*/*b* and that its endpoint locates the number *a*/*b* on the number line.
3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
   a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
   b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.
   c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.*
   d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Measurement and Data 3.MD

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

[4]A range of algorithms may be used.
[5]Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.

2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).[6] Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.[7]

Represent and interpret data.

3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*

4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

5. Recognize area as an attribute of plane figures and understand concepts of area measurement.

   a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.

   b. A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.

6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

7. Relate area to the operations of multiplication and addition.

   a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

   b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

   c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

   d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

8. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

[6]Excludes compound units such as cm^3 and finding the geometric volume of a container.
[7]Excludes multiplicative comparison problems (problems involving notions of "times as much"; see Glossary, Table 2).

Geometry 3.G

Reason with shapes and their attributes.

1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*

Mathematics | Grade 4

In Grade 4, instructional time should focus on three critical areas: (1) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; (2) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; (3) understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.

(1) Students generalize their understanding of place value to 1,000,000, understanding the relative sizes of numbers in each place. They apply their understanding of models for multiplication (equal-sized groups, arrays, area models), place value, and properties of operations, in particular the distributive property, as they develop, discuss, and use efficient, accurate, and generalizable methods to compute products of multi-digit whole numbers. Depending on the numbers and the context, they select and accurately apply appropriate methods to estimate or mentally calculate products. They develop fluency with efficient procedures for multiplying whole numbers; understand and explain why the procedures work based on place value and properties of operations; and use them to solve problems. Students apply their understanding of models for division, place value, properties of operations, and the relationship of division to multiplication as they develop, discuss, and use efficient, accurate, and generalizable procedures to find quotients involving multi-digit dividends. They select and accurately apply appropriate methods to estimate and mentally calculate quotients, and interpret remainders based upon the context.

(2) Students develop understanding of fraction equivalence and operations with fractions. They recognize that two different fractions can be equal (e.g., 15/9 = 5/3), and they develop methods for generating and recognizing equivalent fractions. Students extend previous understandings about how fractions are built from unit fractions, composing fractions from unit fractions, decomposing fractions into unit fractions, and using the meaning of fractions and the meaning of multiplication to multiply a fraction by a whole number.

(3) Students describe, analyze, compare, and classify two-dimensional shapes. Through building, drawing, and analyzing two-dimensional shapes, students deepen their understanding of properties of two-dimensional objects and the use of them to solve problems involving symmetry.

Grade 4 Overview

Operations and Algebraic Thinking

- **Use the four operations with whole numbers to solve problems.**
- **Gain familiarity with factors and multiples.**
- **Generate and analyze patterns.**

Number and Operations in Base Ten

- **Generalize place value understanding for multi-digit whole numbers.**
- **Use place value understanding and properties of operations to perform multi-digit arithmetic.**

Number and Operations—Fractions

- **Extend understanding of fraction equivalence and ordering.**
- **Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.**
- **Understand decimal notation for fractions, and compare decimal fractions.**

Measurement and Data

- **Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.**
- **Represent and interpret data.**
- **Geometric measurement: understand concepts of angle and measure angles.**

Geometry

- **Draw and identify lines and angles, and classify shapes by properties of their lines and angles.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Operations and Algebraic Thinking 4.OA

Use the four operations with whole numbers to solve problems.

1. Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.[1]
3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Gain familiarity with factors and multiples.

4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.

Generate and analyze patterns.

5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*

Number and Operations in Base Ten[2] 4.NBT

Generalize place value understanding for multi-digit whole numbers.

1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.*
2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
3. Use place value understanding to round multi-digit whole numbers to any place.

Use place value understanding and properties of operations to perform multi-digit arithmetic.

4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.
5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

[1]See Glossary, Table 2.
[2]Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.

6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Number and Operations—Fractions[3] 4.NF

Extend understanding of fraction equivalence and ordering.

1. Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

3. Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.
   a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
   b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. *Examples: 3/8 = 1/8 + 1/8 + 1/8 ; 3/8 = 1/8 + 2/8 ; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.*
   c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
   d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
   a. Understand a fraction a/b as a multiple of $1/b$. *For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4).*
   b. Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. *For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.)*
   c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

[3]Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

Understand decimal notation for fractions, and compare decimal fractions.

5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.[4] *For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.*
6. Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.*
7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Measurement and Data 4.MD

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. *For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...*
2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

Represent and interpret data.

4. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*

Geometric measurement: understand concepts of angle and measure angles.

5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
   a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles.
   b. An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.

[4]Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.

6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Geometry 4.G

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Mathematics | Grade 5

In Grade 5, instructional time should focus on three critical areas: (1) developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) extending division to 2-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations; and (3) developing understanding of volume.

(1) Students apply their understanding of fractions and fraction models to represent the addition and subtraction of fractions with unlike denominators as equivalent calculations with like denominators. They develop fluency in calculating sums and differences of fractions, and make reasonable estimates of them. Students also use the meaning of fractions, of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for multiplying and dividing fractions make sense. (Note: this is limited to the case of dividing unit fractions by whole numbers and whole numbers by unit fractions.)

(2) Students develop understanding of why division procedures work based on the meaning of base-ten numerals and properties of operations. They finalize fluency with multi-digit addition, subtraction, multiplication, and division. They apply their understandings of models for decimals, decimal notation, and properties of operations to add and subtract decimals to hundredths. They develop fluency in these computations, and make reasonable estimates of their results. Students use the relationship between decimals and fractions, as well as the relationship between finite decimals and whole numbers (i.e., a finite decimal multiplied by an appropriate power of 10 is a whole number), to understand and explain why the procedures for multiplying and dividing finite decimals make sense. They compute products and quotients of decimals to hundredths efficiently and accurately.

(3) Students recognize volume as an attribute of three-dimensional space. They understand that volume can be measured by finding the total number of same-size units of volume required to fill the space without gaps or overlaps. They understand that a 1-unit by 1-unit by 1-unit cube is the standard unit for measuring volume. They select appropriate units, strategies, and tools for solving problems that involve estimating and measuring volume. They decompose three-dimensional shapes and find volumes of right rectangular prisms by viewing them as decomposed into layers of arrays of cubes. They measure necessary attributes of shapes in order to determine volumes to solve real world and mathematical problems.

Grade 5 Overview

Operations and Algebraic Thinking

- **Write and interpret numerical expressions.**
- **Analyze patterns and relationships.**

Number and Operations in Base Ten

- **Understand the place value system.**
- **Perform operations with multi-digit whole numbers and with decimals to hundredths.**

Number and Operations—Fractions

- **Use equivalent fractions as a strategy to add and subtract fractions.**
- **Apply and extend previous understandings of multiplication and division to multiply and divide fractions.**

Measurement and Data

- **Convert like measurement units within a given measurement system.**
- **Represent and interpret data.**
- **Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.**

Geometry

- **Graph points on the coordinate plane to solve real-world and mathematical problems.**
- **Classify two-dimensional figures into categories based on their properties.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Operations and Algebraic Thinking 5.OA

Write and interpret numerical expressions.

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.*

Analyze patterns and relationships.

3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.*

Number and Operations in Base Ten 5.NBT

Understand the place value system.

1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
3. Read, write, and compare decimals to thousandths.
   a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).
   b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
4. Use place value understanding to round decimals to any place.

Perform operations with multi-digit whole numbers and with decimals to hundredths.

5. Fluently multiply multi-digit whole numbers using the standard algorithm.
6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Number and Operations—Fractions 5.NF

Use equivalent fractions as a strategy to add and subtract fractions.

1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)*
2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.*

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

3. Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*
4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
   a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. *For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)*
   b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
5. Interpret multiplication as scaling (resizing), by:
   a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
   b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.
6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.[1]
   a. Interpret division of a unit fraction by a non-zero whole number,

[1]Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.

and compute such quotients. *For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.*

b. Interpret division of a whole number by a unit fraction, and compute such quotients. *For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.*

c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?*

Measurement and Data 5.MD

Convert like measurement units within a given measurement system.

1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Represent and interpret data.

2. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.

   a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.

   b. A solid figure which can be packed without gaps or overlaps using *n* unit cubes is said to have a volume of *n* cubic units.

4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.

5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

   a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.

   b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.

   c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Geometry 5.G

Graph points on the coordinate plane to solve real-world and mathematical problems.

1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).
2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Classify two-dimensional figures into categories based on their properties.

3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.*
4. Classify two-dimensional figures in a hierarchy based on properties.

Mathematics | Grade 6

In Grade 6, instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.

(1) Students use reasoning about multiplication and division to solve ratio and rate problems about quantities. By viewing equivalent ratios and rates as deriving from, and extending, pairs of rows (or columns) in the multiplication table, and by analyzing simple drawings that indicate the relative size of quantities, students connect their understanding of multiplication and division with ratios and rates. Thus students expand the scope of problems for which they can use multiplication and division to solve problems, and they connect ratios and fractions. Students solve a wide variety of problems involving ratios and rates.

(2) Students use the meaning of fractions, the meanings of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for dividing fractions make sense. Students use these operations to solve problems. Students extend their previous understandings of number and the ordering of numbers to the full system of rational numbers, which includes negative rational numbers, and in particular negative integers. They reason about the order and absolute value of rational numbers and about the location of points in all four quadrants of the coordinate plane.

(3) Students understand the use of variables in mathematical expressions. They write expressions and equations that correspond to given situations, evaluate expressions, and use expressions and formulas to solve problems. Students understand that expressions in different forms can be equivalent, and they use the properties of operations to rewrite expressions in equivalent forms. Students know that the solutions of an equation are the values of the variables that make the equation true. Students use properties of operations and the idea of maintaining the equality of both sides of an equation to solve simple one-step equations. Students construct and analyze tables, such as tables of quantities that are in equivalent ratios, and they use equations (such as $3x = y$) to describe relationships between quantities.

(4) Building on and reinforcing their understanding of number, students begin to develop their ability to think statistically. Students recognize that a data distribution may not have a definite center and that different ways to measure center yield different values. The median measures center in the sense that it is roughly the middle value. The mean measures center in the sense that it is the value that each data point would take on if the total of the data values were redistributed equally, and also in the sense that it is a balance point. Students recognize that a measure of variability (interquartile range or mean absolute deviation) can also be useful for summarizing data because two very different sets of data can have the same mean and

median yet be distinguished by their variability. Students learn to describe and summarize numerical data sets, identifying clusters, peaks, gaps, and symmetry, considering the context in which the data were collected.

Students in Grade 6 also build on their work with area in elementary school by reasoning about relationships among shapes to determine area, surface area, and volume. They find areas of right triangles, other triangles, and special quadrilaterals by decomposing these shapes, rearranging or removing pieces, and relating the shapes to rectangles. Using these methods, students discuss, develop, and justify formulas for areas of triangles and parallelograms. Students find areas of polygons and surface areas of prisms and pyramids by decomposing them into pieces whose area they can determine. They reason about right rectangular prisms with fractional side lengths to extend formulas for the volume of a right rectangular prism to fractional side lengths. They prepare for work on scale drawings and constructions in Grade 7 by drawing polygons in the coordinate plane.

Grade 6 Overview

Ratios and Proportional Relationships

- **Understand ratio concepts and use ratio reasoning to solve problems.**

The Number System

- **Apply and extend previous understandings of multiplication and division to divide fractions by fractions.**
- **Compute fluently with multi-digit numbers and find common factors and multiples.**
- **Apply and extend previous understandings of numbers to the system of rational numbers.**

Expressions and Equations

- **Apply and extend previous understandings of arithmetic to algebraic expressions.**
- **Reason about and solve one-variable equations and inequalities.**
- **Represent and analyze quantitative relationships between dependent and independent variables.**

Geometry

- **Solve real-world and mathematical problems involving area, surface area, and volume.**

Statistics and Probability

- **Develop understanding of statistical variability.**
- **Summarize and describe distributions.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Ratios and Proportional Relationships 6.RP

Understand ratio concepts and use ratio reasoning to solve problems.

1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."*
2. Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."*[1]
3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
    a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
    b. Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
    c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
    d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

The Number System 6.NS

Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?*

Compute fluently with multi-digit numbers and find common factors and multiples.

2. Fluently divide multi-digit numbers using the standard algorithm.
3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.
4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4 (9 + 2).*

[1]Expectations for unit rates in this grade are limited to non-complex fractions.

Apply and extend previous understandings of numbers to the system of rational numbers.

5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
    a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite.
    b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
    c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
7. Understand ordering and absolute value of rational numbers.
    a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret –3 > –7 as a statement that –3 is located to the right of –7 on a number line oriented from left to right.*
    b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3 °C > –7 °C to express the fact that –3 °C is warmer than –7 °C.*
    c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of –30 dollars, write |–30| = 30 to describe the size of the debt in dollars.*
    d. Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than –30 dollars represents a debt greater than 30 dollars.*
8. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

Expressions and Equations 6.EE

Apply and extend previous understandings of arithmetic to algebraic expressions.

1. Write and evaluate numerical expressions involving whole-number exponents.
2. Write, read, and evaluate expressions in which letters stand for numbers.
    a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 – y.*

b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*

c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.*

3. Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*

4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.*

Reason about and solve one-variable equations and inequalities.

5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.

6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.

8. Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

Represent and analyze quantitative relationships between dependent and independent variables.

9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*

Geometry 6.G

Solve real-world and mathematical problems involving area, surface area, and volume.

1. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.

2. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = l\ w\ h$ and $V = b\ h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
3. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
4. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

Statistics and Probability 6.SP

Develop understanding of statistical variability.

1. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*
2. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
3. Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.

Summarize and describe distributions.

4. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
5. Summarize numerical data sets in relation to their context, such as by:
   a. Reporting the number of observations.
   b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
   c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
   d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Mathematics | Grade 7

In Grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

(1) Students extend their understanding of ratios and develop understanding of proportionality to solve single- and multi-step problems. Students use their understanding of ratios and proportionality to solve a wide variety of percent problems, including those involving discounts, interest, taxes, tips, and percent increase or decrease. Students solve problems about scale drawings by relating corresponding lengths between the objects or by using the fact that relationships of lengths within an object are preserved in similar objects. Students graph proportional relationships and understand the unit rate informally as a measure of the steepness of the related line, called the slope. They distinguish proportional relationships from other relationships.

(2) Students develop a unified understanding of number, recognizing fractions, decimals (that have a finite or a repeating decimal representation), and percents as different representations of rational numbers. Students extend addition, subtraction, multiplication, and division to all rational numbers, maintaining the properties of operations and the relationships between addition and subtraction, and multiplication and division. By applying these properties, and by viewing negative numbers in terms of everyday contexts (e.g., amounts owed or temperatures below zero), students explain and interpret the rules for adding, subtracting, multiplying, and dividing with negative numbers. They use the arithmetic of rational numbers as they formulate expressions and equations in one variable and use these equations to solve problems.

(3) Students continue their work with area from Grade 6, solving problems involving the area and circumference of a circle and surface area of three-dimensional objects. In preparation for work on congruence and similarity in Grade 8 they reason about relationships among two-dimensional figures using scale drawings and informal geometric constructions, and they gain familiarity with the relationships between angles formed by intersecting lines. Students work with three-dimensional figures, relating them to two-dimensional figures by examining cross-sections. They solve real-world and mathematical problems involving area, surface area, and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes and right prisms.

(4) Students build on their previous work with single data distributions to compare two data distributions and address questions about differences between populations. They begin informal work with random sampling to generate data sets and learn about the importance of representative samples for drawing inferences.

Grade 7 Overview

Ratios and Proportional Relationships

- **Analyze proportional relationships and use them to solve real-world and mathematical problems.**

The Number System

- **Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.**

Expressions and Equations

- **Use properties of operations to generate equivalent expressions.**
- **Solve real-life and mathematical problems using numerical and algebraic expressions and equations.**

Geometry

- **Draw, construct and describe geometrical figures and describe the relationships between them.**
- **Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.**

Statistics and Probability

- **Use random sampling to draw inferences about a population.**
- **Draw informal comparative inferences about two populations.**
- **Investigate chance processes and develop, use, and evaluate probability models.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Ratios and Proportional Relationships 7.RP

Analyze proportional relationships and use them to solve real-world and mathematical problems.

1. Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. *For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction $^{1/2}/_{1/4}$ miles per hour, equivalently 2 miles per hour.*
2. Recognize and represent proportional relationships between quantities.
   a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
   b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
   c. Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t = pn$.*
   d. Explain what a point *(x, y)* on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, *r)* where *r* is the unit rate.
3. Use proportional relationships to solve multistep ratio and percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.*

The Number System 7.NS

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
   a. Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.*
   b. Understand $p + q$ as the number located a distance $|q|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
   c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
   d. Apply properties of operations as strategies to add and subtract rational numbers.
2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
   a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.

b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.

c. Apply properties of operations as strategies to multiply and divide rational numbers.

d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.

3. Solve real-world and mathematical problems involving the four operations with rational numbers.[1]

Expressions and Equations 7.EE

Use properties of operations to generate equivalent expressions.

1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.

2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. *For example, a + 0.05a = 1.05a means that "increase by 5%" is the same as "multiply by 1.05."*

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. *For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.*

4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.

   a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*

   b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. *For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.*

Geometry 7.G

Draw, construct, and describe geometrical figures and describe the relationships between them.

1. Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.

[1]Computations with rational numbers extend the rules for manipulating fractions to complex fractions.

2. Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
3. Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

4. Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
5. Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
6. Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

Statistics and Probability 7.SP

Use random sampling to draw inferences about a population.

1. Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
2. Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. *For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.*

Draw informal comparative inferences about two populations.

3. Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. *For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.*
4. Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. *For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.*

Investigate chance processes and develop, use, and evaluate probability models.

5. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.

6. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. *For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.*

7. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.

    a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. *For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.*

    b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. *For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?*

8. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.

    a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.

    b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.

    c. Design and use a simulation to generate frequencies for compound events. *For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?*

Mathematics | Grade 8

In Grade 8, instructional time should focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

(1) Students use linear equations and systems of linear equations to represent, analyze, and solve a variety of problems. Students recognize equations for proportions ($y/x = m$ or $y = mx$) as special linear equations ($y = mx + b$), understanding that the constant of proportionality (m) is the slope, and the graphs are lines through the origin. They understand that the slope (m) of a line is a constant rate of change, so that if the input or x-coordinate changes by an amount A, the output or y-coordinate changes by the amount $m \cdot A$. Students also use a linear equation to describe the association between two quantities in bivariate data (such as arm span vs. height for students in a classroom). At this grade, fitting the model, and assessing its fit to the data are done informally. Interpreting the model in the context of the data requires students to express a relationship between the two quantities in question and to interpret components of the relationship (such as slope and y-intercept) in terms of the situation.

Students strategically choose and efficiently implement procedures to solve linear equations in one variable, understanding that when they use the properties of equality and the concept of logical equivalence, they maintain the solutions of the original equation. Students solve systems of two linear equations in two variables and relate the systems to pairs of lines in the plane; these intersect, are parallel, or are the same line. Students use linear equations, systems of linear equations, linear functions, and their understanding of slope of a line to analyze situations and solve problems.

(2) Students grasp the concept of a function as a rule that assigns to each input exactly one output. They understand that functions describe situations where one quantity determines another. They can translate among representations and partial representations of functions (noting that tabular and graphical representations may be partial representations), and they describe how aspects of the function are reflected in the different representations.

(3) Students use ideas about distance and angles, how they behave under translations, rotations, reflections, and dilations, and ideas about congruence and similarity to describe and analyze two-dimensional figures and to solve problems. Students show that the sum of the angles in a triangle is the angle formed by a straight line, and that various configurations of lines give rise to similar triangles because of the angles created when a transversal cuts parallel lines. Students understand the statement of the Pythagorean Theorem and its converse, and can explain why the Pythagorean Theorem holds, for example, by decomposing a square in two different ways. They apply the Pythagorean Theorem to find distances between points on the coordinate plane, to find lengths, and to analyze polygons. Students complete their work on volume by solving problems involving cones, cylinders, and spheres.

Grade 8 Overview

The Number System

- **Know that there are numbers that are not rational, and approximate them by rational numbers.**

Expressions and Equations

- **Work with radicals and integer exponents.**
- **Understand the connections between proportional relationships, lines, and linear equations.**
- **Analyze and solve linear equations and pairs of simultaneous linear equations.**

Functions

- **Define, evaluate, and compare functions.**
- **Use functions to model relationships between quantities.**

Geometry

- **Understand congruence and similarity using physical models, transparencies, or geometry software.**
- **Understand and apply the Pythagorean Theorem.**
- **Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.**

Statistics and Probability

- **Investigate patterns of association in bivariate data.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The Number System 8.NS

Know that there are numbers that are not rational, and approximate them by rational numbers.

1. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.
2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). *For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.*

Expressions and Equations 8.EE

Work with radicals and integer exponents.

1. Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.*
2. Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.
3. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9, and determine that the world population is more than 20 times larger.*
4. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

Understand the connections between proportional relationships, lines, and linear equations.

5. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*
6. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b.

Analyze and solve linear equations and pairs of simultaneous linear equations.

7. Solve linear equations in one variable.
   a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
   b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

8. Analyze and solve pairs of simultaneous linear equations.

   a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.

   b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6.*

   c. Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*

Functions 8.F

Define, evaluate, and compare functions.

1. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.[1]

2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*

3. Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.*

Use functions to model relationships between quantities.

4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

5. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

Geometry 8.G

Understand congruence and similarity using physical models, transparencies, or geometry software.

1. Verify experimentally the properties of rotations, reflections, and translations:

   a. Lines are taken to lines, and line segments to line segments of the same length.

   b. Angles are taken to angles of the same measure.

   c. Parallel lines are taken to parallel lines.

2. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.

[1]Function notation is not required in Grade 8.

3. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
4. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.
5. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. *For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.*

Understand and apply the Pythagorean Theorem.

6. Explain a proof of the Pythagorean Theorem and its converse.
7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
8. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.

9. Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

Statistics and Probability 8.SP

Investigate patterns of association in bivariate data.

1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
2. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.
3. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*
4. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?*

Mathematics Standards for High School

The high school standards specify the mathematics that all students should study in order to be college and career ready. Additional mathematics that students should learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics is indicated by (+), as in this example:

> (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers).

All standards without a (+) symbol should be in the common mathematics curriculum for all college and career ready students. Standards with a (+) symbol may also appear in courses intended for all students.

The high school standards are listed in conceptual categories:

- Number and Quantity
- Algebra
- Functions
- Modeling
- Geometry
- Statistics and Probability

Conceptual categories portray a coherent view of high school mathematics; a student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus.

Modeling is best interpreted not as a collection of isolated topics but in relation to other standards. Making mathematical models is a Standard for Mathematical Practice, and specific modeling standards appear throughout the high school standards indicated by a star symbol (*). The star symbol sometimes appears on the heading for a group of standards; in that case, it should be understood to apply to all standards in that group.

Mathematics | High School—Number and Quantity

Numbers and Number Systems. During the years from kindergarten to eighth grade, students must repeatedly extend their conception of number. At first, "number" means "counting number": 1, 2, 3... Soon after that, 0 is used to represent "none" and the whole numbers are formed by the counting numbers together with zero. The next extension is fractions. At first, fractions are barely numbers and tied strongly to pictorial representations. Yet by the time students understand division of fractions, they have a strong concept of fractions as numbers and have connected them, via their decimal representations, with the base-ten system used to represent the whole numbers. During middle school, fractions are augmented by negative fractions to form the rational numbers. In Grade 8, students extend this system once more, augmenting the rational numbers with the irrational numbers to form the real numbers. In high school, students will be exposed to yet another extension of number, when the real numbers are augmented by the imaginary numbers to form the complex numbers.

With each extension of number, the meanings of addition, subtraction, multiplication, and division are extended. In each new number system—integers, rational numbers, real numbers, and complex numbers—the four operations stay the same in two important ways: They have the commutative, associative, and distributive properties and their new meanings are consistent with their previous meanings.

Extending the properties of whole-number exponents leads to new and productive notation. For example, properties of whole-number exponents suggest that $(5^{1/3})^3$ should be $5^{(1/3)3} = 5^1 = 5$ and that $5^{1/3}$ should be the cube root of 5.

Calculators, spreadsheets, and computer algebra systems can provide ways for students to become better acquainted with these new number systems and their notation. They can be used to generate data for numerical experiments, to help understand the workings of matrix, vector, and complex number algebra, and to experiment with non-integer exponents.

Quantities. In real world problems, the answers are usually not numbers but quantities: numbers with units, which involves measurement. In their work in measurement up through Grade 8, students primarily measure commonly used attributes such as length, area, and volume. In high school, students encounter a wider variety of units in modeling, e.g., acceleration, currency conversions, derived quantities such as person-hours and heating degree days, social science rates such as per-capita income, and rates in everyday life such as points scored per game or batting averages. They also encounter novel situations in which they themselves must conceive the attributes of interest. For example, to find a good measure of overall highway safety, they might propose measures such as fatalities per year, fatalities per year per driver, or fatalities per vehicle-mile traveled. Such a conceptual process is sometimes called quantification. Quantification is important for science, as when surface area suddenly "stands out" as an important variable in evaporation. Quantification is also important for companies, which must conceptualize relevant attributes and create or choose suitable measures for them.

Number and Quantity Overview

The Real Number System

- Extend the properties of exponents to rational exponents
- Use properties of rational and irrational numbers.

Quantities

- Reason quantitatively and use units to solve problems

The Complex Number System

- Perform arithmetic operations with complex numbers
- Represent complex numbers and their operations on the complex plane
- Use complex numbers in polynomial identities and equations

Vector and Matrix Quantities

- Represent and model with vector quantities.
- Perform operations on vectors.
- Perform operations on matrices and use matrices in applications.

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The Real Number System N-RN

Extend the properties of exponents to rational exponents.

1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define* $5^{1/3}$ *to be the cube root of 5 because we want* $(5^{1/3})^3 = 5^{(1/3)3}$ *to hold, so* $(5^{1/3})^3$ *must equal 5.*
2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.

Use properties of rational and irrational numbers.

3. Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.

Quantities* N-Q

Reason quantitatively and use units to solve problems.

1. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
2. Define appropriate quantities for the purpose of descriptive modeling.
3. Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

The Complex Number System N-CN

Perform arithmetic operations with complex numbers.

1. Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.
2. Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.
3. (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.

Represent complex numbers and their operations on the complex plane.

4. (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers), and explain why the rectangular and polar forms of a given complex number represent the same number.
5. (+) Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. *For example,* $(-1 + \sqrt{3}\,i)^3 = 8$ *because* $(-1 + \sqrt{3}\,i)$ *has modulus* 2 *and argument* 120°.
6. (+) Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.

Use complex numbers in polynomial identities and equations.

7. Solve quadratic equations with real coefficients that have complex solutions.
8. (+) Extend polynomial identities to the complex numbers. *For example, rewrite* $x^2 + 4$ *as* $(x + 2i)(x - 2i)$.
9. (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.

Vector and Matrix Quantities N-VM

Represent and model with vector quantities.

1. (+) Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., $\boldsymbol{v}$, $|\boldsymbol{v}|$, $||\boldsymbol{v}||$, v).
2. (+) Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.
3. (+) Solve problems involving velocity and other quantities that can be represented by vectors.

Perform operations on vectors.

4. (+) Add and subtract vectors.
   a. Add vectors end-to-end, component-wise, and by the parallelogram rule. Understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes.
   b. Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum.
   c. Understand vector subtraction $\boldsymbol{v} - \boldsymbol{w}$ as $\boldsymbol{v} + (-\boldsymbol{w})$, where $-\boldsymbol{w}$ is the additive inverse of $\boldsymbol{w}$, with the same magnitude as $\boldsymbol{w}$ and pointing in the opposite direction. Represent vector subtraction graphically by connecting the tips in the appropriate order, and perform vector subtraction component-wise.
5. (+) Multiply a vector by a scalar.
   a. Represent scalar multiplication graphically by scaling vectors and possibly reversing their direction; perform scalar multiplication component-wise, e.g., as $c(v_x, v_y) = (cv_x, cv_y)$.
   b. Compute the magnitude of a scalar multiple $c\boldsymbol{v}$ using $||c\boldsymbol{v}|| = |c|v$. Compute the direction of $c\boldsymbol{v}$ knowing that when $|c|v \neq 0$, the direction of $c\boldsymbol{v}$ is either along $\boldsymbol{v}$ (for $c > 0$) or against $\boldsymbol{v}$ (for $c < 0$).

Perform operations on matrices and use matrices in applications.

6. (+) Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.
7. (+) Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.
8. (+) Add, subtract, and multiply matrices of appropriate dimensions.
9. (+) Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties.
10. (+) Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse.
11. (+) Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors.
12. (+) Work with 2×2 matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area.

Mathematics | High School—Algebra

Expressions. An expression is a record of a computation with numbers, symbols that represent numbers, arithmetic operations, exponentiation, and, at more advanced levels, the operation of evaluating a function. Conventions about the use of parentheses and the order of operations assure that each expression is unambiguous. Creating an expression that describes a computation involving a general quantity requires the ability to express the computation in general terms, abstracting from specific instances.

Reading an expression with comprehension involves analysis of its underlying structure. This may suggest a different but equivalent way of writing the expression that exhibits some different aspect of its meaning. For example, $p + 0.05p$ can be interpreted as the addition of a 5% tax to a price p. Rewriting $p + 0.05p$ as $1.05p$ shows that adding a tax is the same as multiplying the price by a constant factor.

Algebraic manipulations are governed by the properties of operations and exponents, and the conventions of algebraic notation. At times, an expression is the result of applying operations to simpler expressions. For example, $p + 0.05p$ is the sum of the simpler expressions p and $0.05p$. Viewing an expression as the result of operation on simpler expressions can sometimes clarify its underlying structure.

A spreadsheet or a computer algebra system (CAS) can be used to experiment with algebraic expressions, perform complicated algebraic manipulations, and understand how algebraic manipulations behave.

Equations and inequalities. An equation is a statement of equality between two expressions, often viewed as a question asking for which values of the variables the expressions on either side are in fact equal. These values are the solutions to the equation. An identity, in contrast, is true for all values of the variables; identities are often developed by rewriting an expression in an equivalent form.

The solutions of an equation in one variable form a set of numbers; the solutions of an equation in two variables form a set of ordered pairs of numbers, which can be plotted in the coordinate plane. Two or more equations and/or inequalities form a system. A solution for such a system must satisfy every equation and inequality in the system.

An equation can often be solved by successively deducing from it one or more simpler equations. For example, one can add the same constant to both sides without changing the solutions, but squaring both sides might lead to extraneous solutions. Strategic competence in solving includes looking ahead for productive manipulations and anticipating the nature and number of solutions.

Some equations have no solutions in a given number system, but have a solution in a larger system. For example, the solution of $x + 1 = 0$ is an integer, not a whole number; the solution of $2x + 1 = 0$ is a rational number, not an integer; the solutions of $x^2 - 2 = 0$ are real numbers, not rational numbers; and the solutions of $x^2 + 2 = 0$ are complex numbers, not real numbers.

The same solution techniques used to solve equations can be used to rearrange formulas. For example, the formula for the area of a trapezoid, $A = ((b_1+b_2)/2)h$, can be solved for h using the same deductive process.

Inequalities can be solved by reasoning about the properties of inequality. Many, but not all, of the properties of equality continue to hold for inequalities and can be useful in solving them.

Connections to Functions and Modeling. Expressions can define functions, and equivalent expressions define the same function. Asking when two functions have the same value for the same input leads to an equation; graphing the two functions allows for finding approximate solutions of the equation. Converting a verbal description to an equation, inequality, or system of these is an essential skill in modeling.

Algebra Overview

Seeing Structure in Expressions

- Interpret the structure of expressions
- Write expressions in equivalent forms to solve problems

Arithmetic with Polynomials and Rational Expressions

- Perform arithmetic operations on polynomials
- Understand the relationship between zeros and factors of polynomials
- Use polynomial identities to solve problems
- Rewrite rational expressions

Creating Equations

- Create equations that describe numbers or relationships

Reasoning with Equations and Inequalities

- Understand solving equations as a process of reasoning and explain the reasoning
- Solve equations and inequalities in one variable
- Solve systems of equations
- Represent and solve equations and inequalities graphically

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Seeing Structure in Expressions A-SSE

Interpret the structure of expressions

1. Interpret expressions that represent a quantity in terms of its context.*
   a. Interpret parts of an expression, such as terms, factors, and coefficients.
   b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret* $P(1+r)^n$ *as the product of P and a factor not depending on P.*
2. Use the structure of an expression to identify ways to rewrite it. *For example, see* $x^4 - y^4$ *as* $(x^2)^2 - (y^2)^2$, *thus recognizing it as a difference of squares that can be factored as* $(x^2 - y^2)(x^2 + y^2)$.

Write expressions in equivalent forms to solve problems

3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.*
   a. Factor a quadratic expression to reveal the zeros of the function it defines.
   b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.
   c. Use the properties of exponents to transform expressions for exponential functions. *For example the expression* 1.15^t *can be rewritten as* $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ *to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.*
4. Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. *For example, calculate mortgage payments.**

Arithmetic with Polynomials and Rational Expressions A-APR

Perform arithmetic operations on polynomials

1. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

Understand the relationship between zeros and factors of polynomials

2. Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number a, the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.
3. Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

Use polynomial identities to solve problems

4. Prove polynomial identities and use them to describe numerical relationships. *For example, the polynomial identity* $(x^2 + y^2)^2 = (x^2 - y^2)^2 + (2xy)^2$ *can be used to generate Pythagorean triples.*
5. (+) Know and apply the Binomial Theorem for the expansion of $(x + y)^n$ in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.[1]

[1]The Binomial Theorem can be proved by mathematical induction or by a combinatorial argument.

Rewrite rational expressions

6. Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system.
7. (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.

Creating Equations* A-CED

Create equations that describe numbers or relationships

1. Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*
2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.*
4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law V = IR to highlight resistance R.*

Reasoning with Equations and Inequalities A-REI

Understand solving equations as a process of reasoning and explain the reasoning

1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.
2. Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

Solve equations and inequalities in one variable

3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
4. Solve quadratic equations in one variable.
   a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form.
   b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.

Solve systems of equations

5. Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.

6. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.
7. Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. *For example, find the points of intersection between the line* $y = -3x$ and the circle $x^2 + y^2 = 3$.
8. (+) Represent a system of linear equations as a single matrix equation in a vector variable.
9. (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3 × 3 or greater).

Represent and solve equations and inequalities graphically

10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).
11. Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.*
12. Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

Mathematics | High School—Functions

Functions describe situations where one quantity determines another. For example, the return on $10,000 invested at an annualized percentage rate of 4.25% is a function of the length of time the money is invested. Because we continually make theories about dependencies between quantities in nature and society, functions are important tools in the construction of mathematical models.

In school mathematics, functions usually have numerical inputs and outputs and are often defined by an algebraic expression. For example, the time in hours it takes for a car to drive 100 miles is a function of the car's speed in miles per hour, v; the rule $T(v) = 100/v$ expresses this relationship algebraically and defines a function whose name is T.

The set of inputs to a function is called its domain. We often infer the domain to be all inputs for which the expression defining a function has a value, or for which the function makes sense in a given context.

A function can be described in various ways, such as by a graph (e.g., the trace of a seismograph); by a verbal rule, as in, "I'll give you a state, you give me the capital city;" by an algebraic expression like $f(x) = a + bx$; or by a recursive rule. The graph of a function is often a useful way of visualizing the relationship of the function models, and manipulating a mathematical expression for a function can throw light on the function's properties.

Functions presented as expressions can model many important phenomena. Two important families of functions characterized by laws of growth are linear functions, which grow at a constant rate, and exponential functions, which grow at a constant percent rate. Linear functions with a constant term of zero describe proportional relationships.

A graphing utility or a computer algebra system can be used to experiment with properties of these functions and their graphs and to build computational models of functions, including recursively defined functions.

Connections to Expressions, Equations, Modeling, and Coordinates.

Determining an output value for a particular input involves evaluating an expression; finding inputs that yield a given output involves solving an equation. Questions about when two functions have the same value for the same input lead to equations, whose solutions can be visualized from the intersection of their graphs. Because functions describe relationships between quantities, they are frequently used in modeling. Sometimes functions are defined by a recursive process, which can be displayed effectively using a spreadsheet or other technology.

Functions Overview

Interpreting Functions

- Understand the concept of a function and use function notation
- Interpret functions that arise in applications in terms of the context
- Analyze functions using different representations

Building Functions

- Build a function that models a relationship between two quantities
- Build new functions from existing functions

Linear, Quadratic, and Exponential Models

- Construct and compare linear, quadratic, and exponential models and solve problems
- Interpret expressions for functions in terms of the situation they model

Trigonometric Functions

- Extend the domain of trigonometric functions using the unit circle
- Model periodic phenomena with trigonometric functions
- Prove and apply trigonometric identities

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Interpreting Functions F-IF

Understand the concept of a function and use function notation

1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If *f* is a function and *x* is an element of its domain, then *f*(*x*) denotes the output of *f* corresponding to the input *x*. The graph of *f* is the graph of the equation *y* = *f*(*x*).
2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
3. Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. *For example, the Fibonacci sequence is defined recursively by f(0) = f(1) = 1, f(n+1) = f(n) + f(n-1) for n ≥ 1.*

Interpret functions that arise in applications in terms of the context

4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*★
5. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*★
6. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.★

Analyze functions using different representations

7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.★
   a. Graph linear and quadratic functions and show intercepts, maxima, and minima.
   b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.
   c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.
   d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.
   e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.
8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.
   a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.
   b. Use the properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in functions such as* $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, *and classify them as representing exponential growth or decay.*

9. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.*

Building Functions — F-BF

Build a function that models a relationship between two quantities

1. Write a function that describes a relationship between two quantities.*
   a. Determine an explicit expression, a recursive process, or steps for calculation from a context.
   b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.*
   c. (+) Compose functions. *For example, if T(y) is the temperature in the atmosphere as a function of height, and h(t) is the height of a weather balloon as a function of time, then T(h(t)) is the temperature at the location of the weather balloon as a function of time.*
2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.*

Build new functions from existing functions

3. Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k\,f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. *Include recognizing even and odd functions from their graphs and algebraic expressions for them.*
4. Find inverse functions.
   a. Solve an equation of the form f(x) = c for a simple function f that has an inverse and write an expression for the inverse. *For example, $f(x) = 2x^3$ or $f(x) = (x+1)/(x-1)$ for $x \neq 1$.*
   b. (+) Verify by composition that one function is the inverse of another.
   c. (+) Read values of an inverse function from a graph or a table, given that the function has an inverse.
   d. (+) Produce an invertible function from a non-invertible function by restricting the domain.
5. (+) Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.

Linear, Quadratic, and Exponential Models* — F-LE

Construct and compare linear, quadratic, and exponential models and solve problems

1. Distinguish between situations that can be modeled with linear functions and with exponential functions.
   a. Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.
   b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.
   c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.

2. Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).
3. Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.
4. For exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.

Interpret expressions for functions in terms of the situation they model

5. Interpret the parameters in a linear or exponential function in terms of a context.

Trigonometric Functions F-TF

Extend the domain of trigonometric functions using the unit circle

1. Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.
2. Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.
3. (+) Use special triangles to determine geometrically the values of sine, cosine, tangent for $\pi/3$, $\pi/4$ and $\pi/6$, and use the unit circle to express the values of sine, cosine, and tangent for $\pi-x$, $\pi+x$, and $2\pi-x$ in terms of their values for x, where x is any real number.
4. (+) Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.

Model periodic phenomena with trigonometric functions

5. Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.*
6. (+) Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.
7. (+) Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context.*

Prove and apply trigonometric identities

8. Prove the Pythagorean identity $\sin^2(\theta) + \cos^2(\theta) = 1$ and use it to find $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ given $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ and the quadrant of the angle.
9. (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.

Mathematics | High School—Modeling

Modeling links classroom mathematics and statistics to everyday life, work, and decision-making. Modeling is the process of choosing and using appropriate mathematics and statistics to analyze empirical situations, to understand them better, and to improve decisions. Quantities and their relationships in physical, economic, public policy, social, and everyday situations can be modeled using mathematical and statistical methods. When making mathematical models, technology is valuable for varying assumptions, exploring consequences, and comparing predictions with data.

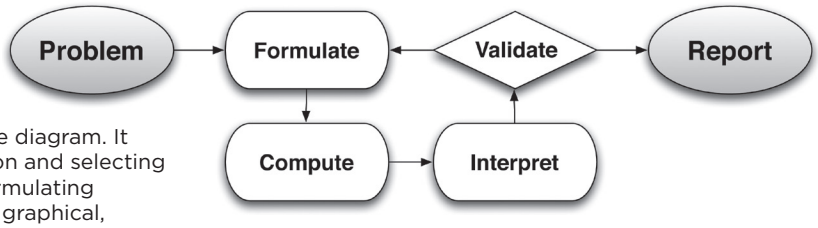
A model can be very simple, such as writing total cost as a product of unit price and number bought, or using a geometric shape to describe a physical object like a coin. Even such simple models involve making choices. It is up to us whether to model a coin as a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. Other situations—modeling a delivery route, a production schedule, or a comparison of loan amortizations—need more elaborate models that use other tools from the mathematical sciences. Real-world situations are not organized and labeled for analysis; formulating tractable models, representing such models, and analyzing them is appropriately a creative process. Like every such process, this depends on acquired expertise as well as creativity.

Some examples of such situations might include:

- Estimating how much water and food is needed for emergency relief in a devastated city of 3 million people, and how it might be distributed.
- Planning a table tennis tournament for 7 players at a club with 4 tables, where each player plays against each other player.
- Designing the layout of the stalls in a school fair so as to raise as much money as possible.
- Analyzing stopping distance for a car.
- Modeling savings account balance, bacterial colony growth, or investment growth.
- Engaging in critical path analysis, e.g., applied to turnaround of an aircraft at an airport.
- Analyzing risk in situations such as extreme sports, pandemics, and terrorism.
- Relating population statistics to individual predictions.

In situations like these, the models devised depend on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models that we can create and analyze is also constrained by the limitations of our mathematical, statistical, and technical skills, and our ability to recognize significant variables and relationships among them. Diagrams of various kinds, spreadsheets and other technology, and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations.

One of the insights provided by mathematical modeling is that essentially the same mathematical or statistical structure can sometimes model seemingly different situations. Models can also shed light on the mathematical structures themselves, for example, as when a model of bacterial growth makes more vivid the explosive growth of the exponential function.



The basic modeling cycle is summarized in the diagram. It involves (1) identifying variables in the situation and selecting those that represent essential features, (2) formulating a model by creating and selecting geometric, graphical, tabular, algebraic, or statistical representations that describe relationships between the variables, (3) analyzing and performing operations on these relationships to draw conclusions, (4) interpreting the results of the mathematics in terms of the original situation, (5) validating the conclusions by comparing them with the situation, and then either improving the model or, if it

is acceptable, (6) reporting on the conclusions and the reasoning behind them. Choices, assumptions, and approximations are present throughout this cycle.

In descriptive modeling, a model simply describes the phenomena or summarizes them in a compact form. Graphs of observations are a familiar descriptive model—for example, graphs of global temperature and atmospheric CO_2 over time.

Analytic modeling seeks to explain data on the basis of deeper theoretical ideas, albeit with parameters that are empirically based; for example, exponential growth of bacterial colonies (until cut-off mechanisms such as pollution or starvation intervene) follows from a constant reproduction rate. Functions are an important tool for analyzing such problems.

Graphing utilities, spreadsheets, computer algebra systems, and dynamic geometry software are powerful tools that can be used to model purely mathematical phenomena (e.g., the behavior of polynomials) as well as physical phenomena.

Modeling Standards *Modeling is best interpreted not as a collection of isolated topics but rather in relation to other standards. Making mathematical models is a Standard for Mathematical Practice, and specific modeling standards appear throughout the high school standards indicated by a star symbol* (⋆).

Mathematics | High School—Geometry

An understanding of the attributes and relationships of geometric objects can be applied in diverse contexts—interpreting a schematic drawing, estimating the amount of wood needed to frame a sloping roof, rendering computer graphics, or designing a sewing pattern for the most efficient use of material.

Although there are many types of geometry, school mathematics is devoted primarily to plane Euclidean geometry, studied both synthetically (without coordinates) and analytically (with coordinates). Euclidean geometry is characterized most importantly by the Parallel Postulate, that through a point not on a given line there is exactly one parallel line. (Spherical geometry, in contrast, has no parallel lines.)

During high school, students begin to formalize their geometry experiences from elementary and middle school, using more precise definitions and developing careful proofs. Later in college some students develop Euclidean and other geometries carefully from a small set of axioms.

The concepts of congruence, similarity, and symmetry can be understood from the perspective of geometric transformation. Fundamental are the rigid motions: translations, rotations, reflections, and combinations of these, all of which are here assumed to preserve distance and angles (and therefore shapes generally). Reflections and rotations each explain a particular type of symmetry, and the symmetries of an object offer insight into its attributes—as when the reflective symmetry of an isosceles triangle assures that its base angles are congruent.

In the approach taken here, two geometric figures are defined to be congruent if there is a sequence of rigid motions that carries one onto the other. This is the principle of superposition. For triangles, congruence means the equality of all corresponding pairs of sides and all corresponding pairs of angles. During the middle grades, through experiences drawing triangles from given conditions, students notice ways to specify enough measures in a triangle to ensure that all triangles drawn with those measures are congruent. Once these triangle congruence criteria (ASA, SAS, and SSS) are established using rigid motions, they can be used to prove theorems about triangles, quadrilaterals, and other geometric figures.

Similarity transformations (rigid motions followed by dilations) define similarity in the same way that rigid motions define congruence, thereby formalizing the similarity ideas of "same shape" and "scale factor" developed in the middle grades. These transformations lead to the criterion for triangle similarity that two pairs of corresponding angles are congruent.

The definitions of sine, cosine, and tangent for acute angles are founded on right triangles and similarity, and, with the Pythagorean Theorem, are fundamental in many real-world and theoretical situations. The Pythagorean Theorem is generalized to non-right triangles by the Law of Cosines. Together, the Laws of Sines and Cosines embody the triangle congruence criteria for the cases where three pieces of information suffice to completely solve a triangle. Furthermore, these laws yield two possible solutions in the ambiguous case, illustrating that Side-Side-Angle is not a congruence criterion.

Analytic geometry connects algebra and geometry, resulting in powerful methods of analysis and problem solving. Just as the number line associates numbers with locations in one dimension, a pair of perpendicular axes associates pairs of numbers with locations in two dimensions. This correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa. The solution set of an equation becomes a geometric curve, making visualization a tool for doing and understanding algebra. Geometric shapes can be described by equations, making algebraic manipulation into a tool for geometric understanding, modeling, and proof. Geometric transformations of the graphs of equations correspond to algebraic changes in their equations.

Dynamic geometry environments provide students with experimental and modeling tools that allow them to investigate geometric phenomena in much the same way as computer algebra systems allow them to experiment with algebraic phenomena.

Connections to Equations. The correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa. The solution set of an equation becomes a geometric curve, making visualization a tool for doing and understanding algebra. Geometric shapes can be described by equations, making algebraic manipulation into a tool for geometric understanding, modeling, and proof.

Geometry Overview

Congruence

- Experiment with transformations in the plane
- Understand congruence in terms of rigid motions
- Prove geometric theorems
- Make geometric constructions

Similarity, Right Triangles, and Trigonometry

- Understand similarity in terms of similarity transformations
- Prove theorems involving similarity
- Define trigonometric ratios and solve problems involving right triangles
- Apply trigonometry to general triangles

Circles

- Understand and apply theorems about circles
- Find arc lengths and areas of sectors of circles

Expressing Geometric Properties with Equations

- Translate between the geometric description and the equation for a conic section
- Use coordinates to prove simple geometric theorems algebraically

Geometric Measurement and Dimension

- Explain volume formulas and use them to solve problems
- Visualize relationships between two-dimensional and three-dimensional objects

Modeling with Geometry

- Apply geometric concepts in modeling situations

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Congruence G-CO

Experiment with transformations in the plane

1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.
2. Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).
3. Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.
4. Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.
5. Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.

Understand congruence in terms of rigid motions

6. Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
7. Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
8. Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

Prove geometric theorems

9. Prove theorems about lines and angles. *Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.*
10. Prove theorems about triangles. *Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.*
11. Prove theorems about parallelograms. *Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.*

Make geometric constructions

12. Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). *Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.*
13. Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

Similarity, Right Triangles, and Trigonometry G-SRT

Understand similarity in terms of similarity transformations

1. Verify experimentally the properties of dilations given by a center and a scale factor:
   a. A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.
   b. The dilation of a line segment is longer or shorter in the ratio given by the scale factor.
2. Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
3. Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.

Prove theorems involving similarity

4. Prove theorems about triangles. *Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.*
5. Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

Define trigonometric ratios and solve problems involving right triangles

6. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.
7. Explain and use the relationship between the sine and cosine of complementary angles.
8. Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.*

Apply trigonometry to general triangles

9. (+) Derive the formula $A = 1/2\ ab\ \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.
10. (+) Prove the Laws of Sines and Cosines and use them to solve problems.
11. (+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).

Circles G-C

Understand and apply theorems about circles

1. Prove that all circles are similar.
2. Identify and describe relationships among inscribed angles, radii, and chords. *Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.*
3. Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.
4. (+) Construct a tangent line from a point outside a given circle to the circle.

Find arc lengths and areas of sectors of circles

5. Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

Expressing Geometric Properties with Equations G-GPE

Translate between the geometric description and the equation for a conic section

1. Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.
2. Derive the equation of a parabola given a focus and directrix.
3. (+) Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.

Use coordinates to prove simple geometric theorems algebraically

4. Use coordinates to prove simple geometric theorems algebraically. *For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point (1, √3) lies on the circle centered at the origin and containing the point (0, 2).*
5. Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).
6. Find the point on a directed line segment between two given points that partitions the segment in a given ratio.
7. Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.*

Geometric Measurement and Dimension G-GMD

Explain volume formulas and use them to solve problems

1. Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. *Use dissection arguments, Cavalieri's principle, and informal limit arguments.*
2. (+) Give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures.
3. Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.*

Visualize relationships between two-dimensional and three-dimensional objects

4. Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

Modeling with Geometry G-MG

Apply geometric concepts in modeling situations

1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).*
2. Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).*
3. Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).*

Mathematics | High School—Statistics and Probability*

Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability. Statistics provides tools for describing variability in data and for making informed decisions that take it into account.

Data are gathered, displayed, summarized, examined, and interpreted to discover patterns and deviations from patterns. Quantitative data can be described in terms of key characteristics: measures of shape, center, and spread. The shape of a data distribution might be described as symmetric, skewed, flat, or bell shaped, and it might be summarized by a statistic measuring center (such as mean or median) and a statistic measuring spread (such as standard deviation or interquartile range). Different distributions can be compared numerically using these statistics or compared visually using plots. Knowledge of center and spread are not enough to describe a distribution. Which statistics to compare, which plots to use, and what the results of a comparison might mean, depend on the question to be investigated and the real-life actions to be taken.

Randomization has two important uses in drawing statistical conclusions. First, collecting data from a random sample of a population makes it possible to draw valid conclusions about the whole population, taking variability into account. Second, randomly assigning individuals to different treatments allows a fair comparison of the effectiveness of those treatments. A statistically significant outcome is one that is unlikely to be due to chance alone, and this can be evaluated only under the condition of randomness. The conditions under which data are collected are important in drawing conclusions from the data; in critically reviewing uses of statistics in public media and other reports, it is important to consider the study design, how the data were gathered, and the analyses employed as well as the data summaries and the conclusions drawn.

Random processes can be described mathematically by using a probability model: a list or description of the possible outcomes (the sample space), each of which is assigned a probability. In situations such as flipping a coin, rolling a number cube, or drawing a card, it might be reasonable to assume various outcomes are equally likely. In a probability model, sample points represent outcomes and combine to make up events; probabilities of events can be computed by applying the Addition and Multiplication Rules. Interpreting these probabilities relies on an understanding of independence and conditional probability, which can be approached through the analysis of two-way tables.

Technology plays an important role in statistics and probability by making it possible to generate plots, regression functions, and correlation coefficients, and to simulate many possible outcomes in a short amount of time.

Connections to Functions and Modeling. Functions may be used to describe data; if the data suggest a linear relationship, the relationship can be modeled with a regression line, and its strength and direction can be expressed through a correlation coefficient.

Statistics and Probability Overview

Interpreting Categorical and Quantitative Data

- Summarize, represent, and interpret data on a single count or measurement variable
- Summarize, represent, and interpret data on two categorical and quantitative variables
- Interpret linear models

Making Inferences and Justifying Conclusions

- Understand and evaluate random processes underlying statistical experiments
- Make inferences and justify conclusions from sample surveys, experiments and observational studies

Conditional Probability and the Rules of Probability

- Understand independence and conditional probability and use them to interpret data
- Use the rules of probability to compute probabilities of compound events in a uniform probability model

Using Probability to Make Decisions

- Calculate expected values and use them to solve problems
- Use probability to evaluate outcomes of decisions

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Interpreting Categorical and Quantitative Data S-ID

Summarize, represent, and interpret data on a single count or measurement variable

1. Represent data with plots on the real number line (dot plots, histograms, and box plots).
2. Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.
3. Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
4. Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

Summarize, represent, and interpret data on two categorical and quantitative variables

5. Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.
6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
   a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. *Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.*
   b. Informally assess the fit of a function by plotting and analyzing residuals.
   c. Fit a linear function for a scatter plot that suggests a linear association.

Interpret linear models

7. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.
8. Compute (using technology) and interpret the correlation coefficient of a linear fit.
9. Distinguish between correlation and causation.

Making Inferences and Justifying Conclusions S-IC

Understand and evaluate random processes underlying statistical experiments

1. Understand statistics as a process for making inferences about population parameters based on a random sample from that population.
2. Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. *For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?*

Make inferences and justify conclusions from sample surveys, experiments, and observational studies

3. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.

4. Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.
5. Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.
6. Evaluate reports based on data.

Conditional Probability and the Rules of Probability S-CP

Understand independence and conditional probability and use them to interpret data

1. Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").
2. Understand that two events *A* and *B* are independent if the probability of *A* and *B* occurring together is the product of their probabilities, and use this characterization to determine if they are independent.
3. Understand the conditional probability of *A* given *B* as *P*(*A* and *B*)/*P*(*B*), and interpret independence of *A* and *B* as saying that the conditional probability of *A* given *B* is the same as the probability of *A*, and the conditional probability of *B* given *A* is the same as the probability of *B*.
4. Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. *For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.*
5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. *For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.*

Use the rules of probability to compute probabilities of compound events in a uniform probability model

6. Find the conditional probability of *A* given *B* as the fraction of *B*'s outcomes that also belong to *A,* and interpret the answer in terms of the model.
7. Apply the Addition Rule, P(A or B) = P(A) + P(B) – P(A and B), and interpret the answer in terms of the model.
8. (+) Apply the general Multiplication Rule in a uniform probability model, P(A and B) = P(A)P(B|A) = P(B)P(A|B), and interpret the answer in terms of the model.
9. (+) Use permutations and combinations to compute probabilities of compound events and solve problems.

Using Probability to Make Decisions S-MD

Calculate expected values and use them to solve problems

1. (+) Define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space; graph the corresponding probability distribution using the same graphical displays as for data distributions.
2. (+) Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.

3. (+) Develop a probability distribution for a random variable defined for a sample space in which theoretical probabilities can be calculated; find the expected value. *For example, find the theoretical probability distribution for the number of correct answers obtained by guessing on all five questions of a multiple-choice test where each question has four choices, and find the expected grade under various grading schemes.*

4. (+) Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value. *For example, find a current data distribution on the number of TV sets per household in the United States, and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?*

Use probability to evaluate outcomes of decisions

5. (+) Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values.

   a. Find the expected payoff for a game of chance. *For example, find the expected winnings from a state lottery ticket or a game at a fast-food restaurant.*

   b. Evaluate and compare strategies on the basis of expected values. *For example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident.*

6. (+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).

7. (+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).

Note on courses and transitions

The high school portion of the Standards for Mathematical Content specifies the mathematics all students should study for college and career readiness. These standards do not mandate the sequence of high school courses. However, the organization of high school courses is a critical component to implementation of the standards. To that end, sample high school pathways for mathematics – in both a traditional course sequence (Algebra I, Geometry, and Algebra II) as well as an integrated course sequence (Mathematics 1, Mathematics 2, Mathematics 3) – will be made available shortly after the release of the final Common Core State Standards. It is expected that additional model pathways based on these standards will become available as well.

The standards themselves do not dictate curriculum, pedagogy, or delivery of content. In particular, states may handle the transition to high school in different ways. For example, many students in the U.S. today take Algebra I in the 8th grade, and in some states this is a requirement. The K-7 standards contain the prerequisites to prepare students for Algebra I by 8th grade, and the standards are designed to permit states to continue existing policies concerning Algebra I in 8th grade.

A second major transition is the transition from high school to post-secondary education for college and careers. The evidence concerning college and career readiness shows clearly that the knowledge, skills, and practices important for readiness include a great deal of mathematics prior to the boundary defined by (+) symbols in these standards. Indeed, some of the highest priority content for college and career readiness comes from Grades 6-8. This body of material includes powerfully useful proficiencies such as applying ratio reasoning in real-world and mathematical problems, computing fluently with positive and negative fractions and decimals, and solving real-world and mathematical problems involving angle measure, area, surface area, and volume. Because important standards for college and career readiness are distributed across grades and courses, systems for evaluating college and career readiness should reach as far back in the standards as Grades 6-8. It is important to note as well that cut scores or other information generated by assessment systems for college and career readiness should be developed in collaboration with representatives from higher education and workforce development programs, and should be validated by subsequent performance of students in college and the workforce.

Glossary

Addition and subtraction within 5, 10, 20, 100, or 1000. Addition or subtraction of two whole numbers with whole number answers, and with sum or minuend in the range 0-5, 0-10, 0-20, or 0-100, respectively. Example: 8 + 2 = 10 is an addition within 10, 14 – 5 = 9 is a subtraction within 20, and 55 – 18 = 37 is a subtraction within 100.

Additive inverses. Two numbers whose sum is 0 are additive inverses of one another. Example: $3/4$ and $-3/4$ are additive inverses of one another because $3/4 + (-3/4) = (-3/4) + 3/4 = 0$.

Associative property of addition. See Table 3 in this Glossary.

Associative property of multiplication. See Table 3 in this Glossary.

Bivariate data. Pairs of linked numerical observations. Example: a list of heights and weights for each player on a football team.

Box plot. A method of visually displaying a distribution of data values by using the median, quartiles, and extremes of the data set. A box shows the middle 50% of the data.[1]

Commutative property. See Table 3 in this Glossary.

Complex fraction. A fraction A/B where A and/or B are fractions (B nonzero).

Computation algorithm. A set of predefined steps applicable to a class of problems that gives the correct result in every case when the steps are carried out correctly. *See also:* computation strategy.

Computation strategy. Purposeful manipulations that may be chosen for specific problems, may not have a fixed order, and may be aimed at converting one problem into another. *See also:* computation algorithm.

Congruent. Two plane or solid figures are congruent if one can be obtained from the other by rigid motion (a sequence of rotations, reflections, and translations).

Counting on. A strategy for finding the number of objects in a group without having to count every member of the group. For example, if a stack of books is known to have 8 books and 3 more books are added to the top, it is not necessary to count the stack all over again. One can find the total by *counting on*—pointing to the top book and saying "eight," following this with "nine, ten, eleven. There are eleven books now."

Dot plot. *See:* line plot.

Dilation. A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.

Expanded form. A multi-digit number is expressed in expanded form when it is written as a sum of single-digit multiples of powers of ten. For example, 643 = 600 + 40 + 3.

Expected value. For a random variable, the weighted average of its possible values, with weights given by their respective probabilities.

First quartile. For a data set with median M, the first quartile is the median of the data values less than M. Example: For the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the first quartile is 6.[2] *See also:* median, third quartile, interquartile range.

Fraction. A number expressible in the form a/b where a is a whole number and b is a positive whole number. (The word *fraction* in these standards always refers to a non-negative number.) *See also:* rational number.

Identity property of 0. See Table 3 in this Glossary.

Independently combined probability models. Two probability models are said to be combined independently if the probability of each ordered pair in the combined model equals the product of the original probabilities of the two individual outcomes in the ordered pair.

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[1]Adapted from Wisconsin Department of Public Instruction, http://dpi.wi.gov/standards/mathglos.html, accessed March 2, 2010.

[2]Many different methods for computing quartiles are in use. The method defined here is sometimes called the Moore and McCabe method. See Langford, E., "Quartiles in Elementary Statistics," *Journal of Statistics Education* Volume 14, Number 3 (2006).

Integer. A number expressible in the form *a* or –*a* for some whole number *a*.

Interquartile Range. A measure of variation in a set of numerical data, the interquartile range is the distance between the first and third quartiles of the data set. Example: For the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the interquartile range is 15 – 6 = 9. *See also:* first quartile, third quartile.

Line plot. A method of visually displaying a distribution of data values where each data value is shown as a dot or mark above a number line. Also known as a dot plot.[3]

Mean. A measure of center in a set of numerical data, computed by adding the values in a list and then dividing by the number of values in the list.[4] Example: For the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the mean is 21.

Mean absolute deviation. A measure of variation in a set of numerical data, computed by adding the distances between each data value and the mean, then dividing by the number of data values. Example: For the data set {2, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the mean absolute deviation is 20.

Median. A measure of center in a set of numerical data. The median of a list of values is the value appearing at the center of a sorted version of the list—or the mean of the two central values, if the list contains an even number of values. Example: For the data set {2, 3, 6, 7, 10, 12, 14, 15, 22, 90}, the median is 11.

Midline. In the graph of a trigonometric function, the horizontal line halfway between its maximum and minimum values.

Multiplication and division within 100. Multiplication or division of two whole numbers with whole number answers, and with product or dividend in the range 0-100. Example: 72 ÷ 8 = 9.

Multiplicative inverses. Two numbers whose product is 1 are multiplicative inverses of one another. Example: 3/4 and 4/3 are multiplicative inverses of one another because 3/4 × 4/3 = 4/3 × 3/4 = 1.

Number line diagram. A diagram of the number line used to represent numbers and support reasoning about them. In a number line diagram for measurement quantities, the interval from 0 to 1 on the diagram represents the unit of measure for the quantity.

Percent rate of change. A rate of change expressed as a percent. Example: if a population grows from 50 to 55 in a year, it grows by 5/50 = 10% per year.

Probability distribution. The set of possible values of a random variable with a probability assigned to each.

Properties of operations. See Table 3 in this Glossary.

Properties of equality. See Table 4 in this Glossary.

Properties of inequality. See Table 5 in this Glossary.

Properties of operations. See Table 3 in this Glossary.

Probability. A number between 0 and 1 used to quantify likelihood for processes that have uncertain outcomes (such as tossing a coin, selecting a person at random from a group of people, tossing a ball at a target, or testing for a medical condition).

Probability model. A probability model is used to assign probabilities to outcomes of a chance process by examining the nature of the process. The set of all outcomes is called the sample space, and their probabilities sum to 1. *See also:* uniform probability model.

Random variable. An assignment of a numerical value to each outcome in a sample space.

Rational expression. A quotient of two polynomials with a non-zero denominator.

Rational number. A number expressible in the form a/b or $-a/b$ for some fraction a/b. The rational numbers include the integers.

Rectilinear figure. A polygon all angles of which are right angles.

Rigid motion. A transformation of points in space consisting of a sequence of

[3]Adapted from Wisconsin Department of Public Instruction, *op. cit*.
[4]To be more precise, this defines the *arithmetic mean*.

one or more translations, reflections, and/or rotations. Rigid motions are here assumed to preserve distances and angle measures.

Repeating decimal. The decimal form of a rational number. *See also:* terminating decimal.

Sample space. In a probability model for a random process, a list of the individual outcomes that are to be considered.

Scatter plot. A graph in the coordinate plane representing a set of bivariate data. For example, the heights and weights of a group of people could be displayed on a scatter plot.[5]

Similarity transformation. A rigid motion followed by a dilation.

Tape diagram. A drawing that looks like a segment of tape, used to illustrate number relationships. Also known as a strip diagram, bar model, fraction strip, or length model.

Terminating decimal. A decimal is called terminating if its repeating digit is 0.

Third quartile. For a data set with median *M*, the third quartile is the median of the data values greater than *M*. Example: For the data set {2, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the third quartile is 15. *See also:* median, first quartile, interquartile range.

Transitivity principle for indirect measurement. If the length of object A is greater than the length of object B, and the length of object B is greater than the length of object C, then the length of object A is greater than the length of object C. This principle applies to measurement of other quantities as well.

Uniform probability model. A probability model which assigns equal probability to all outcomes. *See also:* probability model.

Vector. A quantity with magnitude and direction in the plane or in space, defined by an ordered pair or triple of real numbers.

Visual fraction model. A tape diagram, number line diagram, or area model.

Whole numbers. The numbers 0, 1, 2, 3, ...

[5]Adapted from Wisconsin Department of Public Instruction, *op. cit*.

Table 1. Common addition and subtraction situations.[6]

	Result Unknown	Change Unknown	Start Unknown
Add to	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? 2 + 3 = ?	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? 2 + ? = 5	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? ? + 3 = 5
Take from	Five apples were on the table. I ate two apples. How many apples are on the table now? 5 – 2 = ?	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? 5 – ? = 3	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? ? – 2 = 3

	Total Unknown	Addend Unknown	Both Addends Unknown[1]
Put Together/ Take Apart[2]	Three red apples and two green apples are on the table. How many apples are on the table? 3 + 2 = ?	Five apples are on the table. Three are red and the rest are green. How many apples are green? 3 + ? = 5, 5 – 3 = ?	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? 5 = 0 + 5, 5 = 5 + 0 5 = 1 + 4, 5 = 4 + 1 5 = 2 + 3, 5 = 3 + 2

	Difference Unknown	Bigger Unknown	Smaller Unknown
Compare[3]	("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? 2 + ? = 5, 5 – 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? 2 + 3 = ?, 3 + 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? 5 – 3 = ?, ? + 3 = 5

[1]These take apart situations can be used to show all the decompositions of a given number. The associated equations, which have the total on the left of the equal sign, help children understand that the = sign does not always mean makes or results in but always does mean is the same number as.
[2]Either addend can be unknown, so there are three variations of these problem situations. Both Addends Unknown is a productive extension of this basic situation, especially for small numbers less than or equal to 10.
[3]For the Bigger Unknown or Smaller Unknown situations, one version directs the correct operation (the version using more for the bigger unknown and using less for the smaller unknown). The other versions are more difficult.

[6]Adapted from Box 2-4 of Mathematics Learning in Early Childhood, National Research Council (2009, pp. 32, 33).

Table 2. Common multiplication and division situations.[7]

	Unknown Product	Group Size Unknown ("How many in each group?" Division)	Number of Groups Unknown ("How many groups?" Division)
	3 × 6 = ?	**3 × ? = 18, and 18 ÷ 3 = ?**	**? × 6 = 18, and 18 ÷ 6 = ?**
Equal Groups	There are 3 bags with 6 plums in each bag. How many plums are there in all? *Measurement example*. You need 3 lengths of string, each 6 inches long. How much string will you need altogether?	If 18 plums are shared equally into 3 bags, then how many plums will be in each bag? *Measurement example*. You have 18 inches of string, which you will cut into 3 equal pieces. How long will each piece of string be?	If 18 plums are to be packed 6 to a bag, then how many bags are needed? *Measurement example*. You have 18 inches of string, which you will cut into pieces that are 6 inches long. How many pieces of string will you have?
Arrays,[4] Area[5]	There are 3 rows of apples with 6 apples in each row. How many apples are there? *Area example*. What is the area of a 3 cm by 6 cm rectangle?	If 18 apples are arranged into 3 equal rows, how many apples will be in each row? *Area example*. A rectangle has area 18 square centimeters. If one side is 3 cm long, how long is a side next to it?	If 18 apples are arranged into equal rows of 6 apples, how many rows will there be? *Area example*. A rectangle has area 18 square centimeters. If one side is 6 cm long, how long is a side next to it?
Compare	A blue hat costs $6. A red hat costs 3 times as much as the blue hat. How much does the red hat cost? *Measurement example*. A rubber band is 6 cm long. How long will the rubber band be when it is stretched to be 3 times as long?	A red hat costs $18 and that is 3 times as much as a blue hat costs. How much does a blue hat cost? *Measurement example*. A rubber band is stretched to be 18 cm long and that is 3 times as long as it was at first. How long was the rubber band at first?	A red hat costs $18 and a blue hat costs $6. How many times as much does the red hat cost as the blue hat? *Measurement example*. A rubber band was 6 cm long at first. Now it is stretched to be 18 cm long. How many times as long is the rubber band now as it was at first?
General	$a \times b = ?$	$a \times ? = p$, and $p \div a = ?$	$? \times b = p$, and $p \div b = ?$

[4]The language in the array examples shows the easiest form of array problems. A harder form is to use the terms rows and columns: The apples in the grocery window are in 3 rows and 6 columns. How many apples are in there? Both forms are valuable.
[5]Area involves arrays of squares that have been pushed together so that there are no gaps or overlaps, so array problems include these especially important measurement situations.

[7]The first examples in each cell are examples of discrete things. These are easier for students and should be given before the measurement examples.

Table 3. The properties of operations. Here a, b and c stand for arbitrary numbers in a given number system. The properties of operations apply to the rational number system, the real number system, and the complex number system.

Associative property of addition	$(a + b) + c = a + (b + c)$
Commutative property of addition	$a + b = b + a$
Additive identity property of 0	$a + 0 = 0 + a = a$
Existence of additive inverses	For every a there exists $-a$ so that $a + (-a) = (-a) + a = 0$.
Associative property of multiplication	$(a \times b) \times c = a \times (b \times c)$
Commutative property of multiplication	$a \times b = b \times a$
Multiplicative identity property of 1	$a \times 1 = 1 \times a = a$
Existence of multiplicative inverses	For every $a \neq 0$ there exists $1/a$ so that $a \times 1/a = 1/a \times a = 1$.
Distributive property of multiplication over addition	$a \times (b + c) = a \times b + a \times c$

Table 4. The properties of equality. Here a, b and c stand for arbitrary numbers in the rational, real, or complex number systems.

Reflexive property of equality	$a = a$
Symmetric property of equality	If $a = b$, then $b = a$.
Transitive property of equality	If $a = b$ and $b = c$, then $a = c$.
Addition property of equality	If $a = b$, then $a + c = b + c$.
Subtraction property of equality	If $a = b$, then $a - c = b - c$.
Multiplication property of equality	If $a = b$, then $a \times c = b \times c$.
Division property of equality	If $a = b$ and $c \neq 0$, then $a \div c = b \div c$.
Substitution property of equality	If $a = b$, then b may be substituted for a in any expression containing a.

Table 5. The properties of inequality. Here a, b and c stand for arbitrary numbers in the rational or real number systems.

Exactly one of the following is true: $a < b$, $a = b$, $a > b$.
If $a > b$ and $b > c$ then $a > c$.
If $a > b$, then $b < a$.
If $a > b$, then $-a < -b$.
If $a > b$, then $a \pm c > b \pm c$.
If $a > b$ and $c > 0$, then $a \times c > b \times c$.
If $a > b$ and $c < 0$, then $a \times c < b \times c$.
If $a > b$ and $c > 0$, then $a \div c > b \div c$.
If $a > b$ and $c < 0$, then $a \div c < b \div c$.

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Library Media Budget

Code	Categories	Goal/Obj.	2011-12	2012-13	2013-14	2014-15
310	Purchased personal services					
360	Data processing					
386	Payment to CESA					
Total 300's			$0.00	$0.00	$0.00	$0.00
411	General supplies		$5,715.00	$0.00	$0.00	$0.00
431	Audio-visual media		$4,330.00	$4,450.00	$4,450.00	$4,450.00
432	Library books		$32,540.00	$26,448.00	$32,000.00	$32,000.00
433	Newspapers		$910.00	$840.00	$840.00	$840.00
434	Periodicals		$3,885.00	$3,960.00	$3,960.00	$3,960.00
435	Computer software		$4,730.00	$3,341.00	$3,341.00	$3,341.00
439	Instructional other media	1A, 1C, 1D, 3C,	$6,510.00	$11,512.00	$7,000.00	$7,000.00
440	Non-capital equipment		$0.00	$0.00	$0.00	$0.00
480	Non-instructional software		$1,135.00	$0.00	$0.00	$0.00
490	Other media, non-teaching		$0.00	$0.00	$0.00	$0.00
Total 400's			$59,755.00	$50,551.00	$51,591.00	$51,591.00
551	Equipment purchased/add	3A	$14,350.00			
561	Equipment purchased/replace		$0.00			
Total 500's			$14,350.00	$0.00	$0.00	$0.00
940	Dues & fees		$700.00	$725.00	$750.00	$800.00
Total 900's			$700.00	$725.00	$750.00	$800.00
Total District-wide				$51,276.00	$52,341.00	$52,391.00
The budget is dependent upon Common School Fund money received and district priorities.						

Budget for Chilton IT Plan

Projected Expenditures	CITP	School Year			
	Goal.Obj.	2011-12	2012-13	2013-14	2014-15
Software Procurement	**subtotal**	**$19,029**	**$20,000**	**$22,050**	**$23,000**
New software & upgrades	1A-D,3B,3C,4C	8,000	8,000	10,000	10,000
Microsoft agreement	----	11,029	12,000	12,050	13,000
Hardware, Facilities & Networking	**subtotal**	**$8,606**	**$21,500**	**$21,500**	**$36,500**
Servers	----	0	0	0	15,000
New/Replacement Computers	3A, 4C	0	10,000	10,000	10,000
Projectors	----	8,606	9,000	9,000	9,000
Phones	----	0	2,500	2,500	2,500
Operation, Maintenance, Upgrades, Communications	**subtotal**	**$147,371**	**$142,371**	**$133,771**	**$133,771**
Badgernet	----	6,000	6,000	6,500	6,500
Lightspeed	----	11,000	6,000	6,000	6,000
Lunchbox	----	1,506	1,506	1,506	1,506
NWEA testing	----	17,565	17,565	17,565	17,565
Virus Protection	----	1,000	1,000	1,500	1,500
Powerschool	----	5,400	5,400	5,400	5,400
Skyward	----	9,400	9,400	9,500	9,500
Smartnet for networking equipment	----	4,000	4,000	4,200	4,200
Smartnet for phones	----	500	500	600	600
TetraData	----	10,000	10,000	0	0
Wiscnet	----	8,500	8,500	8,500	8,500
phone batteries	----	500	500	500	500
printer supplies	----	8,000	8,000	8,000	8,000
supplies	----	4,000	4,000	4,000	4,000
vendor labor	----	60,000	60,000	60,000	60,000
Professional Development	**subtotal**	**$4,800**	**$4,800**	**$4,800**	**$4,800**
Information & technology conferences & training	1A-B,2A,2D,3B,4A	4,500	4,500	4,500	4,500
Travel	----	300	300	300	300
Human Resources in Support of IT	**subtotal**	**$107,000**	**$110,000**	**$113,000**	**$117,000**
Information & technology staff salaries & benefits	1,2,3,4	$107,000	$110,000	$113,000	$117,000
Library Media	**subtotal**	**$74,105**	**$50,551**	**$51,591**	**$51,591**
General supplies	----	5,715			
Audio-visual media	----	4,330	4,450	4,450	4,450
Library books	----	32,540	26,448	32,000	32,000
Newspapers	----	910	840	840	840
Periodicals	----	3,885	3,960	3,960	3,960
Computer software	----	4,730	3,341	3,341	3,341
Instructional other media	1A, 1C, 1D, 3C	6,510	11,512	7,000	7,000
Non-capital equipment	----				
Equipment purchased/add	3A	14,350			
Equipment purchased/replace	----				
Non-instructional software	----	1,135			
Total Expenditures		**$360,911**	**$349,222**	**$346,712**	**$366,662**

Projected Funding Sources		2011-2012	2012-2013	2013-2014	2014-2015
District Budget	----	**$297,871**	**$289,671**	**$286,121**	**$306,071**
eRate	----	9,000	9,000	9,000	9,000
Title I	----				
Title II, Part A: Educ Train	----				
Title II, Part B: Math/Science Ptr	----				
Title III	----				
Title V	----				
Title VI	----				
Common School Fund	1A, 1C, 1D, 3C	50,607	51,000	52,000	53,000
Telecom Access Subsidy	----				
Total Budget		**$357,478**	**$349,671**	**$347,121**	**$368,071**

Note: Some CITP objectives may not require a financial expenditure.

Information (Library Media) & Technology Plan Funding Coordination Worksheet

	Professional Development			Learning Tools			Information Resources			Infrastructure & Connectivity		
Funding Source	2012-13	2013-14	2014-15	2012-13	2013-14	2014-15	2012-13	2013-14	2014-15	2012-13	2013-14	2014-15
Local District Budget	4,200	4,200	4,200	88,707	89,000	89,000				350,000	367,500	385,875
E-Rate										11,000	11,300	11,600
NCLB Programs												
Title II												
Title II, Part A: Educ. Train												
Title II, Part B: Math/Sci Ptnr												
Title III												
Title V												
Title VI												
State of WI Programs												
Common School Fund							50,000	50,000	50,000			
Telecom Access Subsidy												
TEACH Block Grant												
TEACH Tech Assist Grant												
Wiring Loan Program												
WATF												
Other												
Other												
Other												
TOTAL	4,200	4,200	4,200	88,707	89,000	89,000	50,000	50,000	50,000	361,000	378,800	397,475

Learning Tools	Warehouse	10,000
Paid through Curriculum	MAP	17,565
	Odyssey	22,100
	Standards Insight	2,875
	Easy Tech & Tech Lit	8,750
	Achievement Series	14,400
	Scantron	5,600
		81,290

Additional programs are purchased through departments

STAR	1,247
Reading A-Z	6,170