



# AKS

ACADEMIC KNOWLEDGE AND SKILLS

**2012-13 MIDDLE SCHOOL**



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### About the Academic Knowledge and Skills (AKS) Curriculum

The AKS are the standards for academic excellence for all students in Gwinnett County Public Schools (GCPS). In every GCPS classroom, instruction and assessment are tailored so that all students learn the AKS. The alignment of AKS with standardized assessments— such as the state-required Iowa Tests of Basic Skills (ITBS) for 8 graders— ensures that GCPS middle school students are well-prepared for this national measurement of achievement. GCPS’ rigorous AKS curriculum also aligns with the state curriculum— the Common Core Georgia Performance Standards (CCGPS) in Language Arts, Mathematics, and literacy standards in Science, Social Studies, and Technical Education; and the Georgia Performance Standards (GPS) in other content areas. This alignment assures that students are prepared for state tests, including the Criterion-Referenced Competency Tests (CRCT), which measure the grade-level achievement of Georgia elementary and middle school students in grades 3–8.

Since its inception in 1996, GCPS’ AKS curriculum has reflected the collective wisdom of thousands of educators and community members who worked together to determine what students need to know and be able to do in order to be successful at the next grade level and in the future. This investment by GCPS’ stakeholders has ensured that the AKS curriculum remains a rigorous and relevant blueprint for student learning in Gwinnett. As part of that ongoing effort, the GEMS Oversight Committee— made up of community and GCPS staff members— meets annually to review proposed additions, deletions, and changes to the AKS that come out of school and community surveys. Following validation by the GEMS committee, recommendations are submitted to the superintendent for approval by the School Board, with implementation the following school year.

### Notes about this Booklet

- Correlations to the following state-required curriculum standards/objectives and middle school assessments are indicated for respective Academic Knowledge and Skills: Common Core Georgia Performance Standards (CCGPS), Georgia Performance Standards (GPS), Quality Core Curriculum (QCC), Iowa Tests of Basic Skills (ITBS), and Character Education (CE).
- Academic Knowledge and Skills beginning with “explore” will not be assessed for mastery at that grade level, but are prerequisite for mastery at a higher grade level.
- This comprehensive book includes the AKS for all middle school grade levels as well as the AKS core subjects for grades 5 and 9. AKS booklets also are available by grade level (K–8 and combined grades for high school) and by core academic subject (Language Arts, Mathematics, Science, and Social Studies) on the district website at [www.gwinnett.k12.ga.us](http://www.gwinnett.k12.ga.us). These booklets are posted in PDF form.
- Parents also can find online PDFs of grade-level brochures (grades K–8) with a more general overview of what students will learn, available services, promotion requirements, and grade-level testing. The Choice Book serves this purpose for high school students, providing an overview of the high school experience, high school and postsecondary planning tools, and a “course catalog.” Parents receive a printed copy of their child’s grade-level AKS brochure (K–8) at the start of the school year, and rising 9th graders receive a printed copy of The Choice Book.
- The AKS numbering system was developed to allow for additions and deletions of AKS without changing the number reference of other AKS. The reference code includes the subject and/or grade level, a letter representing the topic strand and the year implemented.

### Character Education

The school system supports a mandate from the Georgia General Assembly requiring all schools to teach character education. Society and culture are tied together through common threads that guide the way we live, work, and learn. These common beliefs are taught at home and reinforced by the community, schools, religious institutions, and youth service groups. These basic tenets guide the way Gwinnett County teachers teach and the way the school system conducts the business of teaching and learning. Character education is thoroughly embedded in the AKS curriculum. Traits emphasized in the curriculum include the following:

courage	respect for	self-control	generosity	respect for	creativity
patriotism	others	courtesy	punctuality	environment	sportsmanship
citizenship	cooperation	compassion	cleanliness	respect for	loyalty
honesty	kindness	tolerance	cheerfulness	creator	perseverance
fairness	self-respect	diligence	school pride	patience	virtue



## Language Arts

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### A - Reading: Literature

- cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text (CCGPS) (6LA\_A2012-1/ELACC6RL1)
- 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 (CCGPS) (6LA\_A2012-2/ELACC6RL2)
- 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 (CCGPS) (6LA\_A2012-3/ELACC6RL3)
- 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 (CCGPS) (6LA\_A2012-4/ELACC6RL4)
- 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 (CCGPS) (6LA\_A2012-5/ELACC6RL5)
- explain how an author develops the point of view of the narrator or speaker in a text (CCGPS) (6LA\_A2012-6/ELACC6RL6)
- 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 (CCGPS) (6LA\_A2012-7/ELACC6RL7)
- compare and contrast texts in different forms or genres (e.g., stories and poems, historical novels, fantasy stories, and traditional literature from different cultures) in terms of their approaches to similar themes and topics (CCGPS) (6LA\_A2012-8/ELACC6RL9)
- 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, by the end of grade 6 (CCGPS) (6LA\_A2012-9/ELACC6RL10)

### B - Reading: Informational Text

- cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text (CCGPS) (6LA\_B2012-10/ELACC6RI1)
- 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 (CCGPS) (6LA\_B2012-11/ELACC6RI2)
- analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes) (CCGPS) (6LA\_B2012-12/ELACC6RI3)
- determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings (CCGPS) (6LA\_B2012-13/ELACC6RI4)
- 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 (CCGPS) (6LA\_B2012-14/ELACC6RI5)
- determine an author's point of view or purpose in a text and explain how it is conveyed in the text (CCGPS) (6LA\_B2012-15/ELACC6RI6)
- 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 (CCGPS) (6LA\_B2012-16/ELACC6RI7)
- 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 (CCGPS) (6LA\_B2012-17/ELACC6RI8)
- 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) (CCGPS) (6LA\_B2012-18/ELACC6RI9)
- 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, by the end of grade 6 (CCGPS) (6LA\_B2012-19/ELACC6RI10)

## 6th Grade

### **C - Writing**

- write arguments to support claims with clear reasons and relevant evidence (CCGPS) (6LA\_C2012-20/ELACC6W1)
- write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content (CCGPS) (6LA\_C2012-21/ELACC6W2)
- write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences (CCGPS) (6LA\_C2012-22/ELACC6W3)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (6LA\_C2012-23/ELACC6W4)
- develop and strengthen writing as needed, with some guidance and support from peers and adults, by planning, revising, editing, rewriting, or trying a new approach (CCGPS) (6LA\_C2012-24/ELACC6W5)
- 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 (CCGPS) (6LA\_C2012-25/ELACC6W6)
- conduct short research projects to answer questions, drawing on several sources and refocusing the inquiries when appropriate (CCGPS) (6LA\_C2012-26/ELACC6W7)
- 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 (CCGPS) (6LA\_C2012-27/ELACC6W8)
- draw evidence from literary or informational texts, to support analysis, reflection, and research (CCGPS) (6LA\_C2012-28/ELACC6W9)
- 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 (CCGPS) (6LA\_C2012-29/ELACC6W10)

### **D - Speaking and Listening**

- 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 (CCGPS) (6LA\_D2012-30/ELACC6SL1)
- 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 (CCGPS) (6LA\_D2012-31/ELACC6SL2)
- delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not (CCGPS) (6LA\_D2012-32/ELACC6SL3)
- 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 (CCGPS) (6LA\_D2012-33/ELACC6SL4)
- include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information (CCGPS) (6LA\_D2012-34/ELACC6SL5)
- adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate (CCGPS) (6LA\_D2012-35/ELACC6SL6)

### **E - Language**

- demonstrate command of the conventions of standard English grammar and usage when writing or speaking (CCGPS) (6LA\_E2012-36/ELACC6L1)
- demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing (CCGPS) (6LA\_E2012-37/ELACC6L2)
- use knowledge of language and its conventions when writing, speaking, reading, or listening (CCGPS) (6LA\_E2012-38/ELACC6L3)
- 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 (CCGPS) (6LA\_E2012-39/ELACC6L4)

**E – Language (*continued*)**

- demonstrate understanding of figurative language, word relationships, and nuances in word meanings (CCGPS) (6LA\_E2012-40/ELACC6L5)
- 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 (CCGPS) (6LA\_E2012-41/ELACC6L6)

**Math 6**

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**A - Ratio and Proportional Relationships**

- explain the meaning of and use ratio language to describe a ratio relationship between two quantities (CCGPS) (6MA\_A2012-1/MCC6.RP.1)
- explain 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 (CCGPS) (6MA\_A2012-2/MCC6.RP.2)
- 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) (CCGPS) (6MA\_A2012-3/MCC6.RP.3)
- 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) (CCGPS) (6MA\_A2012-4/MCC6.RP.3\_a)
- solve unit rate problems including those involving unit pricing and constant speed (CCGPS) (6MA\_A2012-5/MCC6.RP.3\_b)
- 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 (CCGPS) (6MA\_A2012-6/MCC6.RP.3\_c)
- use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities (CCGPS) (6MA\_A2012-7/MCC6.RP.3\_d)

**B - The Number System**

- compute and interpret quotients of fractions using visual fraction models to solve word problems (CCGPS) (6MA\_B2012-8/MCC6.NS.1)
- compute multi-digit decimal and whole number problems fluently in all four operations (CCGPS) (6MA\_B2012-9/MCC6.NS.2/MCC6.NS.3)
- determine the greatest common factor of two whole numbers less than or equal to 100 (CCGPS) (6MA\_B2012-10/MCC6.NS.4)
- determine the least common multiple of two whole numbers less than or equal to 12 (CCGPS) (6MA\_B2012-11/MCC6.NS.4)
- use the distributive property to express a sum of two whole numbers 1-100 with a common factor as the multiple of two whole numbers with no common factor (CCGPS) (6MA\_B2012-12/MCC6.NS.4)
- model and demonstrate that all positive and negative numbers represent quantities that have opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge) (CCGPS) (6MA\_B2012-13/MCC6.NS.5)
- represent positive and negative numbers as quantities in real-world contexts, explaining the meaning of zero in each situation (CCGPS) (6MA\_B2012-14/MCC6.NS.5)
- recognize that a rational number is 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 (CCGPS) (6MA\_B2012-15/MCC6.NS.6)
- recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of a number is the number itself (e.g.,  $-(-3) = 3$ , and that 0 is its own opposite) (CCGPS) (6MA\_B2012-16/MCC6.NS.6\_a)

## 6th Grade

### **B - The Number System (*continued*)**

- 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 (CCGPS) (6MA\_B2012-17/MCC6.NS.6\_b)
- 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 (CCGPS) (6MA\_B2012-18/MCC6.NS.6\_c)
- understand ordering and absolute value of rational numbers (CCGPS) (6MA\_B2012-19/MCC6.NS.7)
- interpret statements of inequality as statements about the relative position of two numbers on a number line diagram (CCGPS) (6MA\_B2012-20/MCC6.NS.7\_a)
- write, interpret, and explain statements of order for rational numbers in real-world contexts (CCGPS) (6MA\_B2012-21/MCC6.NS.7\_b)
- recognize 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 (CCGPS) (6MA\_B2012-22/MCC6.NS.7\_c)
- distinguish comparisons of absolute value from statements about order (CCGPS) (6MA\_B2012-23/MCC6.NS.7d)
- 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 (CCGPS) (6MA\_B2012-24/MCC6.NS.8)

### **C - Expressions and Equations**

- write and evaluate numerical expressions involving whole-number exponents by applying order of operations (CCGPS) (6MA\_C2012-25/MCC6.EE.1)
- write, read, and evaluate expressions in which letters stand for numbers (CCGPS) (6MA\_C2012-26/MCC6.EE.2)
- write expressions that record operations with numbers and with letters standing for numbers (CCGPS) (6MA\_C2012-27/MCC6.EE.2\_a)
- 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 (CCGPS) (6MA\_C2012-28/MCC6.EE.2\_b)
- evaluate expressions at specific values for their variables (include expressions that arise from formulas 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)) (CCGPS) (6MA\_C2012-29/MCC6.EE.2\_c)
- apply the properties of operations to generate equivalent expressions involving one or more variables (CCGPS) (6MA\_C2012-30/MCC6.EE.3)
- identify when two expressions are equivalent (e.g., when the two expressions name the same number regardless of which value is substituted into them) (CCGPS) (6MA\_C2012-31/MCC6.EE.4)
- use substitution to determine whether a given number in a specified set makes an equation or inequality true (CCGPS) (6MA\_C2012-32/MCC6.EE.5)
- use variables to represent numbers and write expressions when solving a real-world or mathematical problem (CCGPS) (6MA\_C2012-33/MCC6.EE.6)
- solve real-world and mathematical problems by writing and solving one-step linear equations, in the form  $x + p = q$  and  $px = q$ , using each of the four basic operations in which all values are nonnegative rational numbers (CCGPS) (6MA\_C2012-34/MCC6.EE.7)
- write an inequality of the form  $x > c$  or  $x < c$  to represent a constraint or condition in a real-world or mathematical problem (CCGPS) (6MA\_C2012-35/MCC6.EE.8)
- recognize that inequalities of the form  $x > c$  or  $x < c$  have infinitely many solutions; represent solutions of such inequalities on number line diagrams (CCGPS) (6MA\_C2012-36/MCC6.EE.8)
- represent, describe, and analyze relationships between independent and dependent variables using tables, graphs, and formulas (CCGPS) (6MA\_C2012-37/MCC6.EE.9)

**D - Geometry**

- 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 (CCGPS) (6MA\_D2012-38/MCC6.G.1)
- 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  $V = lwh$  and  $V = bh$  to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems (CCGPS) (6MA\_D2012-39/MCC6.G.2)
- draw polygons in the coordinate plane given coordinates for the vertices (CCGPS) (6MA\_D2012-40/MCC6.G.3)
- use a polygon's coordinates to find the vertical or horizontal side lengths of the figure as applied to real-world and mathematical problems (CCGPS) (6MA\_D2012-41/MCC6.G.3)
- represent three-dimensional figures using nets made up of rectangles and triangles (CCGPS) (6MA\_D2012-42/MCC6.G.4)
- estimate and calculate surface area of three-dimensional figures using nets of rectangles and triangles in the context of real-world problems (CCGPS) (6MA\_D2012-43/MCC6.G.4)

**E - Statistics and Probability**

- develop and identify statistical questions used to collect data with variability (CCGPS) (6MA\_E2012-44/MCC6.SP.1)
- describe and analyze a set of data collected to answer a statistical question based on measures of central tendency, identifying the center, spread, and overall shape of the distribution (CCGPS) (6MA\_E2012-45/MCC6.SP.2)
- contrast a measure of center with a measure of variation for a numerical set (CCGPS) (6MA\_E2012-46/MCC6.SP.3)
- display, read, and analyze data using appropriate graphs, including box-and-whisker plots, scatter plots, histograms, and line plots (CCGPS) (6MA\_E2012-47/MCC6.SP.4)
- summarize numerical data sets in relation to their context such as by reporting the number of observations; describing the nature of the attribute under investigation, including how it was measured and its units of measurement; 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 was gathered; relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered (CCGPS) (6MA\_E2012-48/MCC6.SP.5)

**TF - Number and Operations - Fraction**

- solve real-world problems involving multiplication of fractions and mixed numbers by using visual fraction models or equations to represent the problem (CCGPS) (6MA\_TF2012-49/MCC5.NF.6)

## 6th Grade Accelerated Math

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**A - Ratio and Proportional Relationships**

- explain the meaning of and use ratio language to describe a ratio relationship between two quantities (CCGPS) (6MAS\_A2012-1/MCC6.RP.1)
- explain 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 (CCGPS) (6MAS\_A2012-2/MCC6.RP.2)
- 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) (CCGPS) (6MAS\_A2012-3/MCC6.RP.3)
- 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) (CCGPS) (6MAS\_A2012-4/MCC6.RP.3\_a)
- solve unit rate problems including those involving unit pricing and constant speed (CCGPS) (6MAS\_A2012-5/MCC6.RP.3\_b)

## 6th Grade

### A - Ratio and Proportional Relationships (*continued*)

- 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 (CCGPS) (6MAS\_A2012-6/MCC6.RP.3\_c)
- use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities (CCGPS) (6MAS\_A2012-7/MCC6.RP.3\_d)
- calculate unit rates associated with complex fractions, including ratios of lengths, areas, and other quantities measured in like or different units (CCGPS) (6MAS\_A2012-8/MCC7.RP.1)
- recognize and represent proportional relationships between quantities (CCGPS) (6MAS\_A2012-9/MCC7.RP.2)
- determine 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) (CCGPS) (6MAS\_A2012-10/MCC7.RP.2\_a)
- identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships (CCGPS) (6MAS\_A2012-11/MCC7.RP.2\_b)
- represent proportional relationships by equations (CCGPS) (6MAS\_A2012-12/MCC7.RP.2\_c)
- 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 (CCGPS) (6MAS\_A2012-13/MCC7.RP.2\_d)
- use proportional relationships to solve multi-step ratio and percent problems (ex. simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error) (CCGPS) (6MAS\_A2012-14/MCC7.RP.3)

### B - The Number System

- compute and interpret quotients of fractions using visual fraction models to solve word problems (CCGPS) (6MAS\_B2012-15/MCC6.NS.1)
- compute multi-digit decimal and whole number problems fluently in all four operations (CCGPS) (6MAS\_B2012-16/MCC6.NS.2/MCC6.NS.3)
- determine the greatest common factor of two whole numbers less than or equal to 100 (CCGPS) (6MAS\_B2012-17/MCC6.NS.4)
- determine the least common multiple of two whole numbers less than or equal to 12 (CCGPS) (6MAS\_B2012-18/MCC6.NS.4)
- use the distributive property to express a sum of two whole numbers 1-100 with a common factor as the multiple of two whole numbers with no common factor (CCGPS) (6MAS\_B2012-19/MCC6.NS.4)
- model and demonstrate that all positive and negative numbers represent quantities that have opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge) (CCGPS) (6MAS\_B2012-20/MCC6.NS.5)
- represent positive and negative numbers as quantities in real-world contexts, explaining the meaning of zero in each situation (CCGPS) (6MAS\_B2012-21/MCC6.NS.5)
- recognize that a rational number is 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 (CCGPS) (6MAS\_B2012-22/MCC6.NS.6)
- recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of a number is the number itself (e.g.,  $-(-3) = 3$ , and that 0 is its own opposite) (CCGPS) (6MAS\_B2012-23/MCC6.NS.6\_a)
- 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 (CCGPS) (6MAS\_B2012-24/MCC6.NS.6\_b)
- 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 (CCGPS) (6MAS\_B2012-25/MCC6.NS.6\_c)
- understand ordering and absolute value of rational numbers (CCGPS) (6MAS\_B2012-26/MCC6.NS.7)
- interpret statements of inequality as statements about the relative position of two numbers on a number line diagram (CCGPS) (6MAS\_B2012-27/MCC6.NS.7\_a)

**B - The Number System (continued)**

- write, interpret, and explain statements of order for rational numbers in real-world contexts (CCGPS) (6MAS\_B2012-28/MCC6.NS.7\_b)
- recognize 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 (CCGPS) (6MAS\_B2012-29/MCC6.NS.7\_c)
- distinguish comparisons of absolute value from statements about order (CCGPS) (6MAS\_B2012-30/MCC6.NS.7d)
- 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 (CCGPS) (6MAS\_B2012-31/MCC6.NS.8)
- 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 (CCGPS) (6MAS\_B2012-32/MCC7.NS.1)
- describe situations in which opposite quantities combine to make 0 (CCGPS) (6MAS\_B2012-33/MCC7.NS.1\_a)
- identify  $p + q$  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 (CCGPS) (6MAS\_B2012-34/MCC7.NS.1\_b)
- identify 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 (CCGPS) (6MAS\_B2012-35/MCC7.NS.1\_c)
- apply properties of operations as strategies to add and subtract rational numbers (CCGPS) (6MAS\_B2012-36/MCC7.NS.1\_d)
- apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers (CCGPS) (6MAS\_B2012-37/MCC7.NS.2)
- recognize 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 (CCGPS) (6MAS\_B2012-38/MCC7.NS.2\_a)
- recognize 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 (CCGPS) (6MAS\_B2012-39/MCC7.NS.2\_b)
- apply properties of operations as strategies to multiply and divide rational numbers (CCGPS) (6MAS\_B2012-40/MCC7.NS.2\_c)
- 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 (CCGPS) (6MAS\_B2012-41/MCC7.NS.2\_d)
- solve real-world and mathematical problems involving the four operations with rational numbers (CCGPS) (6MAS\_B2012-42/MCC7.NS.3)

**C - Expressions and Equations**

- write and evaluate numerical expressions involving whole-number exponents by applying order of operations (CCGPS) (6MAS\_C2012-43/MCC6.EE.1)
- write, read, and evaluate expressions in which letters stand for numbers (CCGPS) (6MAS\_C2012-44/MCC6.EE.2)
- write expressions that record operations with numbers and with letters standing for numbers (CCGPS) (6MAS\_C2012-45/MCC6.EE.2\_a)
- 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 (CCGPS) (6MAS\_C2012-46/MCC6.EE.2\_b)
- evaluate expressions at specific values for their variables (include expressions that arise from formulas 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)) (CCGPS) (6MAS\_C2012-47/MCC6.EE.2\_c)
- apply the properties of operations to generate equivalent expressions involving one or more variables (CCGPS) (6MAS\_C2012-48/MCC6.EE.3)

## 6th Grade

### **C - Expressions and Equations (*continued*)**

- identify when two expressions are equivalent (e.g., when the two expressions name the same number regardless of which value is substituted into them) (CCGPS) (6MAS\_C2012-49/MCC6.EE.4)
- use substitution to determine whether a given number in a specified set makes an equation or inequality true (CCGPS) (6MAS\_C2012-50/MCC6.EE.5)
- use variables to represent numbers and write expressions when solving a real-world or mathematical problem (CCGPS) (6MAS\_C2012-51/MCC6.EE.6)
- solve real-world and mathematical problems by writing and solving one-step linear equations, in the form  $x + p = q$  and  $px = q$ , using each of the four basic operations in which all values are nonnegative rational numbers (CCGPS) (6MAS\_C2012-52/MCC6.EE.7)
- write an inequality of the form  $x > c$  or  $x < c$  to represent a constraint or condition in a real-world or mathematical problem (CCGPS) (6MAS\_C2012-53/MCC6.EE.8)
- recognize that inequalities of the form  $x > c$  or  $x < c$  have infinitely many solutions; represent solutions of such inequalities on number line diagrams (CCGPS) (6MAS\_C2012-54/MCC6.EE.8)
- represent, describe, and analyze relationships between independent and dependent variables using tables, graphs, and formulas (CCGPS) (6MAS\_C2012-55/MCC6.EE.9)
- add, subtract, factor, and expand linear expressions with rational coefficients (CCGPS) (6MAS\_C2012-56/MCC7.EE.1)
- interpret solutions of algebraic expressions and equations in problem contexts (CCGPS) (6MAS\_C2012-57/MCC7.EE.2)
- 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 (CCGPS) (6MAS\_C2012-58/MCC7.EE.3)
- apply properties of operations as strategies to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies (CCGPS) (6MAS\_C2012-59/MCC7.EE.3)
- 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 (CCGPS) (6MAS\_C2012-60/MCC7.EE.4)
- 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 and solve equations of these forms fluently (CCGPS) (6MAS\_C2012-61/MCC7.EE.4\_a)
- compare an algebraic solution to an arithmetic solution identifying the sequence of the operations used in each approach (CCGPS) (6MAS\_C2012-62/MCC7.EE.4\_a)
- solve word problems leading to inequalities of the form  $px + q > r$  or  $px + q < r$ , where  $p$ ,  $q$ ,  $r$  are specific rational numbers; graph the solution set of the inequality and interpret it in the context of the problem (CCGPS) (6MAS\_C2012-63/MCC7.EE.4\_b)

### **D - Geometry**

- 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 (CCGPS) (6MAS\_D2012-64/MCC6.G.1)
- 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  $V = lwh$  and  $V = bh$  to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems (CCGPS) (6MAS\_D2012-65/MCC6.G.2)
- draw polygons in the coordinate plane given coordinates for the vertices (CCGPS) (6MAS\_D2012-66/MCC6.G.3)
- use a polygon's coordinates to find the vertical or horizontal side lengths of the figure as applied to real-world and mathematical problems (CCGPS) (6MAS\_D2012-67/MCC6.G.3)
- represent three-dimensional figures using nets made up of rectangles and triangles (CCGPS) (6MAS\_D2012-68/MCC6.G.4)
- estimate and calculate surface area of three-dimensional figures using nets of rectangles and triangles in the context of real-world problems (CCGPS) (6MAS\_D2012-69/MCC6.G.4)

**D – Geometry (*continued*)**

- 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 (CCGPS) (6MAS\_D2012-70/MCC7.G.1)

**E - Statistics and Probability**

- develop and identify statistical questions used to collect data with variability (CCGPS) (6MAS\_E2012-71/MCC6.SP.1)
- describe and analyze a set of data collected to answer a statistical question based on measures of central tendency, identifying the center, spread, and overall shape of the distribution (CCGPS) (6MAS\_E2012-72/MCC6.SP.2)
- contrast a measure of center with a measure of variation for a numerical set (CCGPS) (6MAS\_E2012-73/MCC6.SP.3)
- display, read, and analyze data using appropriate graphs, including box-and-whisker plots, scatter plots, histograms, and line plots (CCGPS) (6MAS\_E2012-74/MCC6.SP.4)
- summarize numerical data sets in relation to their context such as by reporting the number of observations; describing the nature of the attribute under investigation, including how it was measured and its units of measurement; 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 was gathered; relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered (CCGPS) (6MAS\_E2012-75/MCC6.SP.5)

**TF - Number and Operations - Fraction**

- solve real-world problems involving multiplication of fractions and mixed numbers by using visual fraction models or equations to represent the problem (CCGPS) (6MAS\_TF2012-76/MCC5.NF.6)

## Science

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**A - Characteristics of Science**

- identify questions and problems that can be answered and solved through scientific inquiry (GPS, ITBS, ACT) (6SC\_A2005-1)
- design and conduct investigations using scientific method (GPS, ITBS, ACT) (6SC\_A2005-2)
- apply standard safety practices for all classroom laboratory and field investigations (GPS) (6SC\_A2005-3)
- use appropriate scientific tools, techniques, and technologies to gather, analyze, and interpret data (GPS, ITBS, ACT) (6SC\_A2005-4)
- apply computation and estimation skills necessary for analyzing data and developing conclusions (GPS) (6SC\_A2005-5)
- think critically and logically about relationships between evidence and explanations (GPS, ITBS, ACT) (6SC\_A2005-6)
- communicate scientific ideas clearly (GPS) (ITBS, ACT) (6SC\_A2005-7)
- read scientific materials to establish context for subject matter, develop vocabulary, and to be aware of current research (GPS) (6SC\_A2005-8)
- analyze the importance of understanding systems, models, and scales when exploring scientific and technological matters (GPS) (6SC\_A2005-9)
- discuss the importance of curiosity, honesty, openness, and skepticism in science and exhibit these traits in efforts to understand how the world works (GPS) (6SC\_A2006-1)

**B - Astronomy**

- explain the effects of the relative position of the sun, Earth, and moon (GPS, ITBS) (6SC\_B2005-10)
- analyze the composition of our solar system (GPS, ITBS) (6SC\_B2005-11)
- analyze current scientific views about the formation of the universe and how those views evolved (GPS, ITBS) (6SC\_B2005-12)

**C - Hydrology**

- analyze the significant role of water in earth processes (GPS, ITBS, CE) (6SC\_C2005-14)

## 6th Grade

### **D - Meteorology**

- explain how the distribution of land and oceans affects climate and weather (GPS, ITBS) (6SC\_D2005-15)

### **E - Geology**

- investigate the composition and formation of Earth's surface (GPS, ITBS) (6SC\_E2005-16)
- describe processes that cause gradual changes in Earth's surface (GPS, ITBS) (6SC\_E2005-17)

### **F - Paleontology**

- describe Earth's geologic history (6SC\_F2005-18)

### **G - Ecology**

- compare various sources of energy and describe their uses and methods of conservation (GPS) (6SC\_G2005-19)

## **Social Studies**

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### **A - Map and Globe Skills**

- use cardinal directions (GPS) (6SS\_A2009-1)
- use intermediate directions (GPS) (6SS\_A2009-2)
- use a letter/number grid system to determine location (GPS) (6SS\_A2009-3)
- compare and contrast the categories of natural, cultural, and political features found on maps (GPS) (6SS\_A2009-4)
- use customary and metric map scales to determine distance on a map (GPS) (6SS\_A2009-5)
- use map key/legend to acquire information from historical, physical, political, resource, product, and economic maps (GPS) (6SS\_A2009-6)
- use a map to explain the impact of geography on historical and current events (GPS) (6SS\_A2009-7)
- draw conclusions and make generalizations based on information from maps (GPS) (6SS\_A2009-8)
- use latitude and longitude to determine location (GPS) (6SS\_A2009-9)
- use graphic scales to determine distances on a map (GPS) (6SS\_A2009-10)
- compare maps of the same place at different points in time and from different perspectives to determine changes, identify trends, and generalize about human activities (GPS) (6SS\_A2009-11)
- compare maps with data sets (charts, tables, graphs) and/or readings to draw conclusions and make generalizations (GPS) (6SS\_A2009-12)

### **B - Information and Processing Skills**

- compare similarities and differences (GPS) (6SS\_B2009-13)
- organize items chronologically (GPS) (6SS\_B2009-14)
- identify issues and/or problems and alternative solutions (GPS) (6SS\_B2009-15)
- distinguish between fact and opinion (GPS) (6SS\_B2009-16)
- identify main idea, detail, sequence of events, and cause and effect in a social studies context (GPS) (6SS\_B2009-17)
- identify and use primary and secondary sources (GPS) (6SS\_B2009-18)
- interpret timelines (GPS) (6SS\_B2009-19)
- identify social studies reference resources to use for a specific purpose (GPS) (6SS\_B2009-20)
- construct charts and tables (GPS) (6SS\_B2009-21)
- analyze artifacts (GPS) (6SS\_B2009-22)
- draw conclusions and make generalizations (GPS) (6SS\_B2009-23)
- analyze graphs and diagrams (GPS) (6SS\_B2009-24)
- translate dates into centuries, eras, or ages (GPS) (6SS\_B2009-25)
- formulate appropriate research questions (GPS) (6SS\_B2009-26)
- determine adequacy and/or relevancy of information (GPS) (6SS\_B2009-27)

**B - Information and Processing Skills (*continued*)**

- check for consistency of information (GPS) (6SS\_B2009-28)
- interpret political cartoons (GPS) (6SS\_B2009-29)
- explain personal money management choices in terms of income, spending, credit, saving, and investing (GPS) (6SS\_B2009-30)

**C - Latin America and the Caribbean**

- locate selected features of Latin America and the Caribbean (GPS) (6SS\_C2009-31)
- discuss environmental issues in Latin America (GPS) (6SS\_C2009-32)
- analyze the impact of location, climate, distribution of natural resources, and population distribution on Latin America and the Caribbean (GPS) (6SS\_C2009-33)
- examine the cultural characteristics of people who live in Latin America and the Caribbean (GPS) (6SS\_C2009-34)
- compare and contrast various forms of government (GPS) (6SS\_C2009-35)
- explain the structures of national governments in Latin America and the Caribbean (GPS) (6SS\_C2009-36)
- analyze different economic systems (GPS) (6SS\_C2009-37)
- cite examples of how voluntary trade benefits buyers and sellers in Latin America, the Caribbean, and Canada (GPS) (6SS\_C2009-38)
- analyze factors that influence economic growth and examine their presence or absence in Latin America (GPS) (6SS\_C2009-39)
- explain the impact of European contact on Latin America (GPS) (6SS\_C2009-40)
- explain the development of Latin America and the Caribbean from European colonies to independent nations (GPS) (6SS\_C2009-41)
- analyze important 20th century issues in Latin America and the Caribbean (GPS) (6SS\_C2009-42)

**D - Canada**

- locate selected features of Canada (GPS) (6SS\_D2009-43)
- analyze the impact of location, climate, distribution of natural resources, and population distribution on Canada (GPS) (6SS\_D2009-44)
- discuss environmental issues in Canada (GPS) (6SS\_D2009-45)
- explain the structure of the national government of Canada (GPS) (6SS\_D2009-46)
- explain the impact of European contact on Canada (GPS) (6SS\_D2009-47)
- analyze important contemporary issues in Canada (GPS) (6SS\_D2009-48)

**E - Europe**

- locate selected features of Europe (GPS) (6SS\_E2009-49)
- explain environmental issues in Europe (GPS) (6SS\_E2009-50)
- explain the impact of location, climate, natural resources, and population distribution on Europe (GPS) (6SS\_E2009-51)
- examine the cultural characteristics of Europe (GPS) (6SS\_E2009-52)
- explain the structure of modern European governments (GPS) (6SS\_E2009-53)
- compare the basic types of economic systems found in the United Kingdom, Germany, and Russia (GPS) (6SS\_E2009-54)
- analyze the benefits of and barriers to voluntary trade in Europe (GPS) (6SS\_E2009-55)
- examine factors that influence economic growth and examine their presence or absence in Europe (GPS) (6SS\_E2009-56)
- analyze the impact of European exploration and colonization on various world regions (GPS) (6SS\_E2009-57)
- explain conflict and change in Europe to the 21st century (GPS) (6SS\_E2009-58)

**F - Australia**

- locate selected features of Australia (GPS) (6SS\_F2009-59)
- explain the impact of location, climate, distribution of natural resources, and population distribution on Australia (GPS) (6SS\_F2009-60)

## 6th Grade

### **F – Australia (*continued*)**

- examine the cultural characteristics of people who live in Australia (GPS) (6SS\_F2009-61)
- explain the structure of the national government of Australia (GPS) (6SS\_F2009-62)
- describe the economic system used in Australia (GPS) (6SS\_F2009-63)
- examine how voluntary trade benefits buyers and sellers in Australia (GPS) (6SS\_F2009-64)
- analyze factors that influence economic growth and examine their presence or absence in Australia (GPS) (6SS\_F2009-65)
- examine the culture and development of Australia prior to contact with Europeans (GPS) (6SS\_F2009-66)
- explain the impact European exploration and colonization had on Australia (GPS) (6SS\_F2009-67)

## **Beginning Band**

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### **A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (6BA\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (6BA\_A2011-2)
- read and notate music (GPS) (6BA\_A2011-3)

### **B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (6BA\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (6BA\_B2011-5)

### **C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (6BA\_C2011-6)
- evaluate music and music performances (GPS) (6BA\_C2011-7)

### **D - Cultural and Historical Context**

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (6BA\_D2011-8)
- connect the relationship of music to history and culture (GPS) (6BA\_D2011-9)

## **Business and Computer Science**

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### **A - Keyboarding**

- develop keyboarding skills by touch with speed and accuracy (GPS) (6CS\_A2009-1)

### **B - 21st Century Skills**

- develop and model employability skills (GPS) (6CS\_B2009-2)
- develop an individual career plan reflecting personal traits and beliefs (GPS) (6CS\_B2009-3)

### **C - Computer Applications**

- apply basic word processing skills to documents (GPS) (6CS\_C2009-4)
- utilize a spreadsheet application (GPS) (6CS\_C2009-5)
- investigate the use of database application (GPS) (6CS\_C2009-6)
- utilize desktop publishing software (GPS) (6CS\_C2009-7)
- design and produce a multimedia presentation (GPS) (6CS\_C2009-8)

**D - Internet and Safety**

- demonstrate computer safety and file maintenance (GPS) (6CS\_D2009-9)
- discuss Internet safety and security issues (GPS) (6CS\_D2009-10)
- utilize the Internet as a resource (GPS) (6CS\_D2009-11)

**E - Information Systems**

- classify computer system components (GPS) (6CS\_E2009-12)

**F - Literacy Standards**

- cite specific textual evidence to support analysis of technical texts (CCGPS) (6CS\_F2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (6CS\_F2012-2)
- follow precisely a multistep procedure when performing technical tasks (CCGPS) (6CS\_F2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (6CS\_F2012-4)
- 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 (CCGPS) (6CS\_F2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (6CS\_F2012-6)
- 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) (CCGPS) (6CS\_F2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (6CS\_F2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (6CS\_F2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (6CS\_F2012-10)
- write arguments focused on discipline-specific content (CCGPS) (6CS\_F2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (6CS\_F2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (6CS\_F2012-13)
- 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 (CCGPS) (6CS\_F2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (6CS\_F2012-15)
- 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 (CCGPS) (6CS\_F2012-16)
- 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 (CCGPS) (6CS\_F2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (6CS\_F2012-18)
- 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 (CCGPS) (6CS\_F2012-19)

## Career Connections

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### A - Interpersonal Skills

- identify positive interpersonal skills (GPS) (6CC\_A2011-1)

### B - Management Skills

- discover management skills (GPS) (6CC\_B2011-2)

### C - Goal Setting

- identify employability and educational goals (GPS) (6CC\_C2011-3)

### D - Literacy Standards

- cite specific textual evidence to support analysis of technical texts (CCGPS) (6CC\_D2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (6CC\_D2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (6CC\_D2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (6CC\_D2012-4)
- 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 (CCGPS) (6CC\_D2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (6CC\_D2012-6)
- 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) (CCGPS) (6CC\_D2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (6CC\_D2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (6CC\_D2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (6CC\_D2012-10)
- write arguments focused on discipline-specific content (CCGPS) (6CC\_D2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (6CC\_D2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (6CC\_D2012-13)
- 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 (CCGPS) (6CC\_D2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (6CC\_D2012-15)
- 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 (CCGPS) (6CC\_D2012-16)
- 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 (CCGPS) (6CC\_D2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (6CC\_D2012-18)
- 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 (CCGPS) (6CC\_D2012-19)

## Beginning Chorus

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### A - Skills and Techniques/Performance

- sing, alone and with others, a varied repertoire of music (GPS) (6CH\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (6CH\_A2011-2)
- read and notate music (GPS) (6CH\_A2011-3)

### B - Creation

- improvise melodies, variations, and accompaniments (GPS) (6CH\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (6CH\_B2011-5)

### C - Critical Analysis/Investigation

- listen to, analyze, and describe music (GPS) (6CH\_C2011-6)
- evaluate music and music performances (GPS) (6CH\_C2011-7)

### D - Cultural and Historical Context

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (6CH\_D2011-8)
- understand music in relation to history and culture (GPS) (6CH\_D2011-9)

## Engineering and Technology

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### A - Academic Knowledge

- examine the nature of engineering and technology (GPS) (6ET\_A2009-1)
- evaluate the impact of engineering and technology on society (GPS) (6ET\_A2009-2)
- explain the engineering design process (GPS) (6ET\_A2009-3)
- demonstrate an understanding for a technological world through hands-on projects (GPS) (6ET\_A2009-4)
- investigate the design world of engineering, electronics, manufacturing, or energy systems (GPS) (6ET\_A2009-5)
- examine and research careers in fields related to engineering and technology (GPS) (6ET\_A2009-6)
- develop leadership skills and work ethics (GPS) (6ET\_A2009-7)

### B - Literacy Standards

- cite specific textual evidence to support analysis of technical texts (CCGPS) (6ET\_B2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (6ET\_B2012-2)
- follow precisely a multistep procedure when performing technical tasks (CCGPS) (6ET\_B2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (6ET\_B2012-4)
- 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 (CCGPS) (6ET\_B2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (6ET\_B2012-6)
- 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) (CCGPS) (6ET\_B2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (6ET\_B2012-8)

## 6th Grade

### **B - Literacy Standards (*continued*)**

- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (6ET\_B2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (6ET\_B2012-10)
- write arguments focused on discipline-specific content (CCGPS) (6ET\_B2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (6ET\_B2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (6ET\_B2012-13)
- 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 (CCGPS) (6ET\_B2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (6ET\_B2012-15)
- 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 (CCGPS) (6ET\_B2012-16)
- 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 (CCGPS) (6ET\_B2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (6ET\_B2012-18)
- 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 (CCGPS) (6ET\_B2012-19)

## **Family and Consumer Science**

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### **A - Careers**

- explore careers in the areas of culinary arts, consumer services, early childhood education, nutrition and food science, interior and fashion design, education, and leadership (GPS) (6FC\_A2011-1)

### **B - Safety**

- utilize standard safety practices for all classroom laboratory and field investigations (GPS) (6FC\_B2011-2)

### **C - Foods and Nutrition**

- apply principles of food science, food technology and nutrition and their relationships to growth, development, health, and wellness to support informed decision-making that promotes good health (GPS) (6FC\_C2011-3)
- demonstrate food preparation skills (GPS) (6FC\_C2011-4)
- identify and demonstrate acceptable behaviors for table service and meal-time behaviors (GPS) (6FC\_C2011-5)

### **D - Child Development**

- analyze human growth and development and demonstrate the integration of knowledge, skills, and practices of the caregiver roles (GPS) (6FC\_D2011-6)

### **E - Personal Finance**

- identify and discuss social and financial skills needed to develop personal independence and interpersonal relationships (GPS) (6FC\_E2011-7)
- analyze factors (social, psychological, economic, cultural) affecting consumer and management decisions for individuals and families (GPS) (6FC\_E2011-8)

**F - Housing**

- analyze factors affecting housing and interior design decisions for individuals and families (GPS) (6FC\_F2011-9)

**G - Textiles**

- analyze factors affecting textile and apparel decisions for individuals and families (GPS) (6FC\_G2011-10)

**H - Leadership**

- demonstrate teamwork, leadership skills, and knowledge to become leaders in the family, workplace, and community (GPS) (6FC\_H2011-11)

**I - Literacy Standards**

- cite specific textual evidence to support analysis of technical texts (CCGPS) (6FC\_I2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (6FC\_I2012-2)
- follow precisely a multistep procedure when performing technical tasks (CCGPS) (6FC\_I2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (6FC\_I2012-4)
- 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 (CCGPS) (6FC\_I2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (6FC\_I2012-6)
- 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) (CCGPS) (6FC\_I2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (6FC\_I2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (6FC\_I2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (6FC\_I2012-10)
- write arguments focused on discipline-specific content (CCGPS) (6FC\_I2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (6FC\_I2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (6FC\_I2012-13)
- 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 (CCGPS) (6FC\_I2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (6FC\_I2012-15)
- 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 (CCGPS) (6FC\_I2012-16)
- 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 (CCGPS) (6FC\_I2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (6FC\_I2012-18)
- 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 (CCGPS) (6FC\_I2012-19)

## General Music

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### A - Skills and Techniques/Performance

- sing, alone and with others, a varied repertoire of music (GPS) (6GM\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (6GM\_A2011-2)
- read and notate music (GPS) (6GM\_A2011-3)

### B - Creation

- improvise melodies, variations, and accompaniments (GPS) (6GM\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (6GM\_B2011-5)

### C - Critical Analysis/Investigation

- listen to, analyze, and describe music (GPS) (6GM\_C2011-6)
- evaluate music and music performances (GPS) (6GM\_C2011-7)

### D - Cultural and Historical Context

- compare relationships between music, the other arts, and disciplines outside the arts (GPS) (6GM\_D2011-8)
- investigate music in relation to history and culture (GPS) (6GM\_D2011-9)

## Beginning Guitar

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### A - Skills and Techniques/Performance

- sing, alone and with others, a varied repertoire of music (6GU\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (6GU\_A2011-2)
- read and notate music (GPS) (6GU\_A2011-3)

### B - Creation

- improvise melodies, variations, and accompaniments (GPS) (6GU\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (6GU\_B2011-5)

### C - Critical Analysis/Investigation

- listen to, analyze, and describe music (GPS) (6GU\_C2011-6)
- evaluate music and music performances (GPS) (6GU\_C2011-7)

### D - Cultural and Historical Context

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (6GU\_D2011-8)
- understand music in relation to history and culture (GPS) (6GU\_D2011-9)

## Health

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### A - First Aid

- identify and explain the causes of extreme temperature emergencies and the appropriate strategies for prevention and treatment (GPS) (6HE\_A2009-1)

### B - Safety

- explain the personal responsibility of individuals and community members for maintaining public safety (GPS) (6HE\_B2009-2)

**C - Personal Care**

- explain the importance of assessing and providing for personal health needs (GPS) (6HE\_C2009-3)

**D - Disease Prevention**

- identify strategies for preventing, detecting, and controlling non-infectious diseases (GPS) (6HE\_D2009-4)

**E - Tobacco, Alcohol, and Other Drugs**

- analyze the impact of tobacco, marijuana, and other drugs on individuals, families, and society (GPS) (6HE\_E2009-5)
- examine school rules, system policies, and local, state, and federal laws regulating possession and use of tobacco products, marijuana, and other drugs (GPS) (6HE\_E2009-6)
- apply and practice the responsible decision-making model to avoid threats to personal and community health (GPS) (6HE\_E2009-7)
- assess personal risk factors and protective factors for drug use (GPS) (6HE\_E2009-8)

**F - Nutrition**

- analyze environmental and societal barriers to healthy eating and explore strategies for overcoming these barriers (GPS) (6HE\_F2009-9)
- assess the nutritive value of various fast foods (6HE\_F2009-10)

**G - Emotional Expression/Mental Health**

- express appropriate ways to build and maintain healthy relationships with peers, parents, and others (GPS) (6HE\_G2009-11)
- demonstrate ways to handle conflict without fighting (GPS) (6HE\_G2009-12)

**H - Family Life**

- recognize how sexual decisions can be influenced by group pressures (GPS) (6HE\_H2009-13)
- summarize the process of human reproduction (GPS) (6HE\_H2009-14)
- identify methods of preventing sexually transmitted diseases and whether or not they are effective (GPS) (6HE\_H2009-15)
- recognize abstinence from any sexual activity as the only method to prevent pregnancy and sexually transmitted diseases (GPS) (6HE\_H2009-16)

**I - Applied Anatomy and Physiology**

- identify the parts and discuss the functions of the male and female reproductive system (GPS) (6HE\_I2009-17)
- identify the parts and discuss the function of the nervous, endocrine, and respiratory systems (GPS) (6HE\_I2009-18)

## Journalism

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**A - Journalism**

- prewrite to generate ideas for writing (QCC) (6JO\_A2010-1)
- draft writing to capture ideas and develop fluency (QCC) (6JO\_A2010-2)
- revise writing to match purposes with audience and to improve content, organization, and style (QCC) (6JO\_A2010-3)
- revise writing to eliminate wordiness (QCC) (6JO\_A2010-4)
- edit for spelling, fragments, and run-on sentences (QCC) (6JO\_A2010-5)
- use writing handouts, grammar checkers, and references to edit usage and mechanics (QCC) (6JO\_A2010-6)
- write to report answers to research questions (QCC) (6JO\_A2010-7)
- write, combine, and vary sentences to match purposes and audience (QCC) (6JO\_A2010-8)
- distinguish between fact and opinion (QCC) (6JO\_A2010-9)

## 6th Grade

### **A – Journalism (*continued*)**

- write Standard American English sentences with correct verb forms, punctuation, capitalization, possessives, plural forms, and other mechanics (QCC) (6JO\_A2010-10)
- recognize and write for a variety of purposes specific to journalism (e.g., news, editorials, and features) (QCC) (6JO\_A2010-11)
- defend editorial conclusions using credible facts, examples, illustrations, and details from various sources (QCC) (6JO\_A2010-12)
- read newspapers, charts, graphs, and technical documents for research (QCC) (6JO\_A2010-13)
- read critically, ask pertinent questions, recognize assumptions and implications, and evaluate ideas (QCC) (6JO\_A2010-14)
- identify, comprehend, and summarize who, what, when, where, and how in a variety of print and non-print resources (QCC) (6JO\_A2010-15)
- take notes in interviews and discussions and report accurately what others have said (QCC) (6JO\_A2010-16)
- use the research process (select a topic, formulate questions, identify key words, choose sources, skim, paraphrase, take notes, organize, summarize, and present ideas) (QCC) (6JO\_A2010-17)
- acquire new vocabulary through research and interview (QCC) (6JO\_A2010-18)
- use a variety of print and non-print resources as parts of the research for stories (QCC) (6JO\_A2010-19)
- prioritize tasks to meet deadlines (QCC) (6JO\_A2010-20)
- work as a team member to solve problems (QCC) (6JO\_A2010-21)
- recognize speaker's purpose and identify verbal and nonverbal components of communication (body language, facial expressions, gestures) (QCC) (6JO\_A2010-22)
- speak so others can hear and understand (QCC) (6JO\_A2010-23)

### **B - Technology and Production/Publication Skills**

- demonstrate ability to use appropriate medium for production/publications (e.g., desktop publishing for print journalism, video equipment for broadcast journalism) (QCC) (6JO\_B2010-24)
- plan interviews by developing questions for print and/or broadcast stories (QCC) (6JO\_B2010-25)
- conduct, record, and accurately report information from interviews (QCC) (6JO\_B2010-26)
- utilize pre-writes, story boards, or split-page format for story development (QCC) (6JO\_B2010-27)
- prepare and refine print articles/script for publication/production (QCC) (6JO\_B2010-28)

### **C - Knowledge of Journalism Ethics**

- understand and practice ethical reporting avoiding bias, slander, and plagiarism (QCC) (6JO\_C2010-29)

### **D - Knowledge of Journalism Careers**

- identify career opportunities in journalism (e.g., editor-in-chief, editor, reporter, photojournalist, copy reader, advertisement sales, graphic artist) (QCC) (6JO\_D2010-30)

## **Modern Languages Connections**

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### **A - Communication**

- exchange basic greetings, farewells, and expressions of courtesy orally and in writing (GPS) (6MLC\_A2009-1)
- respond to classroom directions (GPS) (6MLC\_A2009-2)
- identify vocabulary and respond to simple questions on a variety of topics such as weather, time, family, home, school, and food (GPS) (6MLC\_A2009-3)
- manipulate common sequences such as alphabet, calendar, and numbers (GPS) (6MLC\_A2009-4)
- identify main ideas and basic details while reading or listening when strongly supported by context or illustrations (GPS) (6MLC\_A2009-5)

**B - Culture**

- develop an awareness of perspectives, practices, and products of the cultures where the target language is spoken (GPS) (6MLC\_B2009-6)

**C - Connections, Comparisons, and Communities**

- discuss academic and/or career benefits of language study (GPS) (6MLC\_C2009-7)
- use information acquired in the study of the target language and information acquired in other subject areas to reinforce one another (GPS) (6MLC\_C2009-8)
- compare the cultures of the target language countries to those of the United States (GPS) (6MLC\_C2009-9)
- compare basic elements of the target language to the English language (GPS) (6MLC\_C2009-10)
- demonstrate an awareness of current events in the target cultures (GPS) (6MLC\_C2009-11)

## Beginning Orchestra

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**A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (6OR\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (6OR\_A2011-2)
- perform, identify, and notate music (GPS) (6OR\_A2011-3)
- understand instrument care and maintenance (GPS) (6OR\_A2011-4)

**B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (6OR\_B2011-5)
- compose and arrange music within specified guidelines (GPS) (6OR\_B2011-6)

**C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (6OR\_C2011-7)
- evaluate music and music performances (GPS) (6OR\_C2011-8)

**D - Cultural and Historical Context**

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (6OR\_D2011-9)
- understand music in relation to history and culture (GPS) (6OR\_D2011-10)

## Peer Leadership

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**A -**

- describe the role, functions, and characteristics of a peer leader (QCC) (6PL\_A1998-2)
- adhere to established ground rules and the National Peer Helping Association ethical guidelines (6PL\_A1998-3)
- explore and apply the fundamental characteristics of facilitative relationships and communication skills (QCC) (6PL\_A1998-4)
- identify and demonstrate interpersonal skills necessary to maintain positive peer relationships (QCC) (6PL\_A1998-6)
- demonstrate an understanding of problem-solving and/or mediation techniques (QCC) (6PL\_A1998-7)
- identify methods of conflict/anger management (QCC) (6PL\_A1998-8)
- explore the concepts of prejudice and discrimination and their impact on peer relationships (QCC) (6PL\_A1998-9)
- identify elements of group interaction (QCC) (6PL\_A1998-10)
- utilize elements of successful group interactions by participating in a variety of roles within group settings (QCC) (6PL\_A1998-11)
- participate in assigned targeted groups within the school community (QCC) (6PL\_A1998-12)

## 6th Grade

### **A – (continued)**

- define positive and negative aspects of peer pressure (QCC) (6PL\_A1998-13)
- indicate a variety of alternatives to negative peer pressure (QCC) (6PL\_A1998-14)
- explore how personal responsibility relates to long- and short-range life and career goals (QCC) (6PL\_A1998-15)
- establish roles, responsibilities, and procedures related to peer tutoring including effective study habits, test-taking skills, and time management (QCC) (6PL\_A1998-16)
- demonstrate knowledge and skills of peer leadership intervention strategies in a variety of settings (6PL\_A1998-17)
- utilize knowledge and understanding gained through individual and/or group projects (6PL\_A1998-18)

## **Physical Education**

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### **A - Fitness**

- participate in health-enhancing fitness activities (GPS) (6PE\_A2009-1)
- demonstrate progress toward or meet health-related fitness standards as defined by research (6PE\_A2009-2)
- apply basic training principles to improve flexibility (6PE\_A2009-3)
- describe the differences between health- and skill-related fitness (6PE\_A2009-4)

### **B - Motor Skills and Movement Patterns**

- demonstrate increased competency in throwing and catching (6PE\_B2009-5)
- demonstrate increased competency striking with an implement (6PE\_B2009-6)
- demonstrate increased competency in applying timing and rhythm sequences (6PE\_B2009-7)

### **C - Movement Concepts and Principles**

- identify movement concepts and principles related to the learning and development of motor skills (GPS) (6PE\_C2009-8)
- identify offensive and defensive strategies in complex settings (GPS) (6PE\_C2009-9)

### **D - Personal and Social Behaviors**

- exhibit responsible personal and social behavior that respects self and others in physical activity settings (6PE\_D2009-10)
- demonstrate how to work cooperatively and productively in a group to accomplish a set goal in both cooperative and competitive settings (6PE\_D2009-11)

## **Beginning Piano**

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### **A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (6PI\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (6PI\_A2011-2)
- read and notate music (GPS) (6PI\_A2011-3)

### **B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (6PI\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (6PI\_B2011-5)

### **C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (6PI\_C2011-6)
- evaluate music and music performances (GPS) (6PI\_C2011-7)

**D - Cultural and Historical Context**

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (6PI\_D2011-8)
- understand music in relation to history and culture (GPS) (6PI\_D2011-9)

## Study Skills

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**A-**

- describe and demonstrate the attitudes and habits necessary for school success (6SK\_A1999-1)
- demonstrate appropriate and effective study methods (6SK\_A1999-2)
- set and work towards appropriate goals (6SK\_A1999-3)
- read for the purposes of gathering information and/or following directions (6SK\_A1999-4)
- learn appropriate listening skills (6SK\_A1999-5)
- demonstrate efficient organization and management of time (6SK\_A1999-6)
- demonstrate efficient organization and management of materials and space (6SK\_A1999-7)
- select and demonstrate appropriate problem-solving strategies (e.g., math word problems, brain teasers, personal problem-solving, and study methods) (6SK\_A1999-8)
- use graphic aids found in textbooks and other sources of information (e.g., maps, graphs, charts, and tables) (6SK\_A1999-9)
- identify appropriate test-taking strategies (6SK\_A1999-10)

## Theatre Arts

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**A - Creation**

- analyze and construct meaning from theatrical experiences (GPS) (6TA\_A2011-1)
- develop scripts through various theatrical methods (GPS) (6TA\_A2011-2)
- develop and sustain character through theatrical activities (GPS) (6TA\_A2011-3)
- develop and create artistic and technical elements of theatre (GPS) (6TA\_A2011-4)
- plan, organize, and direct rehearsals for performance (GPS) (6TA\_A2011-5)
- demonstrate responsibility to the group through attendance, punctuality, cooperation, leadership, listening, preparation, and self-discipline (GPS) (6TA\_A2011-6)

**B - Cultural and Historical Context**

- investigate historical and multicultural heritage related to theatre activities (GPS) (6TA\_B2011-7)
- connect various art forms, other content areas, and life experiences through theatre activities (GPS) (6TA\_B2011-8)
- examine the cultural role of theatre (GPS) (6TA\_B2011-9)
- explore career opportunities in theatre (GPS) (6TA\_B2011-10)

**C - Critical Analysis/Investigation**

- evaluate theatre presentations using appropriate supporting evidence (GPS) (6TA\_C2011-11)

## Visual Arts

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### **A - Create, Design, Engage, and Connect**

- visualize and generate ideas with a variety of two-dimensional and three-dimensional art methods and materials to create through a process of authentic engagement (GPS) (6VA\_A2011-1)
- create artwork from personal experience by connecting background knowledge to current content (GPS) (6VA\_A2011-2)
- apply proper care and safe use of materials and tools (GPS) (6VA\_A2011-3)
- engage in the task at hand, collaborate effectively, and move smoothly among whole group, small group, and individual tasks (GPS) (6VA\_A2011-4)
- employ technology in the creation of art as a medium and resource (GPS) (6VA\_A2011-5)

### **B - Perceive and Analyze**

- analyze artwork using the language of art (elements and principles) to develop ideas and resolve problems (GPS) (6VA\_B2011-6)
- interpret art through discussion and/or written reflection to respond to, apply, and communicate content (GPS) (6VA\_B2011-7)
- develop ability in visual communication to differentiate media in works of art (GPS) (6VA\_B2011-8)

### **C - Investigate Contextual and Cultural Understanding**

- synthesize knowledge of values, themes, and aesthetics of different cultures and contexts (GPS) (6VA\_C2011-9)
- apply information from other disciplines to enhance understanding and production of artworks (GPS) (6VA\_C2011-10)
- expand knowledge of art as a profession and/or avocation (GPS) (6VA\_C2011-11)
- discover how the creative process relates to art history (GPS) (6VA\_C2011-12)

### **D - Assess and Respond**

- engage in aesthetics and participate in dialogue about artwork using a variety of approaches (GPS) (6VA\_D2011-13)
- explore the process of critical analysis of art (description, interpretation, analysis, and judgment) using own artwork or the artwork of others (GPS) (6VA\_D2011-14)

## Language Arts

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### A - Reading: Literature

- cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text (CCGPS) (7LA\_A2012-1/ELACC7RL1)
- 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 (CCGPS) (7LA\_A2012-2/ELACC7RL2)
- analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot) (CCGPS) (7LA\_A2012-3/ELACC7RL3)
- 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 (CCGPS) (7LA\_A2012-4/ELACC7RL4)
- analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning (CCGPS) (7LA\_A2012-5/ELACC7RL5)
- analyze how an author develops and contrasts the points of view of different characters or narrators in a text (CCGPS) (7LA\_A2012-6/ELACC7RL6)
- 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) (CCGPS) (7LA\_A2012-7/ELACC7RL7)
- 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 of different cultures use or alter history (CCGPS) (7LA\_A2012-8/ELACC7RL9)
- 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, by the end of grade 7 (CCGPS) (7LA\_A2012-9/ELACC7RL10)

### B - Reading: Informational Text

- cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text (CCGPS) (7LA\_B2012-10/ELACC7RI1)
- 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 (CCGPS) (7LA\_B2012-11/ELACC7RI2)
- 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) (CCGPS) (7LA\_B2012-12/ELACC7RI3)
- 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 (CCGPS) (7LA\_B2012-13/ELACC7RI4)
- 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 (CCGPS) (7LA\_B2012-14/ELACC7RI5)
- 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 (CCGPS) (7LA\_B2012-15/ELACC7RI6)
- 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) (CCGPS) (7LA\_B2012-16/ELACC7RI7)
- 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 (CCGPS) (7LA\_B2012-17/ELACC7RI8)
- 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 (CCGPS) (7LA\_B2012-18/ELACC7RI9)
- 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, by the end of grade 7 (CCGPS) (7LA\_B2012-19/ELACC7RI10)

## 7th Grade

### **C - Writing**

- write arguments to support claims with clear reasons and relevant evidence (CCGPS) (7LA\_C2012-20/ELACC7W1)
- write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content (CCGPS) (7LA\_C2012-21/ELACC7W2)
- write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences (CCGPS) (7LA\_C2012-22/ELACC7W3)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (7LA\_C2012-23/ELACC7W4)
- develop and strengthen writing as needed, with some guidance and support from peers and adults, by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed (CCGPS) (7LA\_C2012-24/ELACC7W5)
- 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 (CCGPS) (7LA\_C2012-25/ELACC7W6)
- conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation (CCGPS) (7LA\_C2012-26/ELACC7W7)
- 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 (CCGPS) (7LA\_C2012-27/ELACC7W8)
- draw evidence from literary or informational texts to support analysis, reflection, and research (CCGPS) (7LA\_C2012-28/ELACC7W9)
- 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 (CCGPS) (7LA\_C2012-29/ELACC7W10)

### **D - Speaking and Listening**

- 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 (CCGPS) (7LA\_D2012-30/ELACC7SL1)
- 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 (CCGPS) (7LA\_D2012-31/ELACC7SL2)
- delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence (CCGPS) (7LA\_D2012-32/ELACC7SL3)
- 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 (CCGPS) (7LA\_D2012-33/ELACC7SL4)
- include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points (CCGPS) (7LA\_D2012-34/ELACC7SL5)
- adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate (CCGPS) (7LA\_D2012-35/ELACC7SL6)

### **E - Language**

- demonstrate command of the conventions of standard English grammar and usage when writing or speaking (CCGPS) (7LA\_E2012-36/ELACC7L1)
- demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing (CCGPS) (7LA\_E2012-37/ELACC7L2)
- use knowledge of language and its conventions when writing, speaking, reading, or listening (CCGPS) (7LA\_E2012-38/ELACC7L3)
- 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 (CCGPS) (7LA\_E2012-39/ELACC7L4)

**E – Language (*continued*)**

- demonstrate understanding of figurative language, word relationships, and nuances in word meanings (CCGPS) (7LA\_E2012-40/ELACC7L5)
- 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 (CCGPS) (7LA\_E2012-41/ELACC7L6)

**Math 7**

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**A - Ratio and Proportional Relationships**

- calculate unit rates associated with complex fractions, including ratios of lengths, areas, and other quantities measured in like or different units (CCGPS) (7MA\_A2012-1/MCC7.RP.1)
- recognize and represent proportional relationships between quantities (CCGPS) (7MA\_A2012-2/MCC7.RP.2)
- determine 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) (CCGPS) (7MA\_A2012-3/MCC7.RP.2\_a)
- identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships (CCGPS) (7MA\_A2012-4/MCC7.RP.2\_b)
- represent proportional relationships by equations (CCGPS) (7MA\_A2012-5/MCC7.RP.2\_c)
- 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 (CCGPS) (7MA\_A2012-6/MCC7.RP.2\_d)
- use proportional relationships to solve multi-step ratio and percent problems (ex. simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error) (CCGPS) (7MA\_A2012-7/MCC7.RP.3)

**B - The Number System**

- 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 (CCGPS) (7MA\_B2012-8/MCC7.NS.1)
- describe situations in which opposite quantities combine to make 0 (CCGPS) (7MA\_B2012-9/MCC7.NS.1\_a)
- identify  $p + q$  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 (CCGPS) (7MA\_B2012-10/MCC7.NS.1\_b)
- identify 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 (CCGPS) (7MA\_B2012-11/MCC7.NS.1\_c)
- apply properties of operations as strategies to add and subtract rational numbers (CCGPS) (7MA\_B2012-12/MCC7.NS.1\_d)
- apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers (CCGPS) (7MA\_B2012-13/MCC7.NS.2)
- recognize 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 (CCGPS) (7MA\_B2012-14/MCC7.NS.2\_a)
- recognize 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 (CCGPS) (7MA\_B2012-15/MCC7.NS.2\_b)
- apply properties of operations as strategies to multiply and divide rational numbers (CCGPS) (7MA\_B2012-16/MCC7.NS.2\_c)

## 7th Grade

### **B - The Number System (*continued*)**

- 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 (CCGPS) (7MA\_B2012-17/MCC7.NS.2\_d)
- solve real-world and mathematical problems involving the four operations with rational numbers (CCGPS) (7MA\_B2012-18/MCC7.NS.3)

### **C - Expressions and Equations**

- add, subtract, factor, and expand linear expressions with rational coefficients (CCGPS) (7MA\_C2012-19/MCC7.EE.1)
- interpret solutions of algebraic expressions and equations in problem contexts (CCGPS) (7MA\_C2012-20/MCC7.EE.2)
- 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 (CCGPS) (7MA\_C2012-21/MCC7.EE.3)
- apply properties of operations as strategies to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies (CCGPS) (7MA\_C2012-22/MCC7.EE.3)
- 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 (CCGPS) (7MA\_C2012-23/MCC7.EE.4)
- 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 and solve equations of these forms fluently (CCGPS) (7MA\_C2012-24/MCC7.EE.4\_a)
- compare an algebraic solution to an arithmetic solution identifying the sequence of the operations used in each approach (CCGPS) (7MA\_C2012-25/MCC7.EE.4\_a)
- solve word problems leading to inequalities of the form  $px + q > r$  or  $px + q < r$ , where  $p$ ,  $q$ ,  $r$  are specific rational numbers; graph the solution set of the inequality and interpret it in the context of the problem (CCGPS) (7MA\_C2012-26/MCC7.EE.4\_b)

### **D - Geometry**

- 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 (CCGPS) (7MA\_D2012-27/MCC7.G.1)
- construct (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions, including constructing triangles from three measures of angles or sides and determining which measurements produce a unique triangle, more than one triangle, or no triangle (CCGPS) (7MA\_D2012-28/MCC7.G.2)
- sketch, model, and describe a cross section of two-dimensional figures, right rectangular prisms, and right rectangular pyramids (CCGPS) (7MA\_D2012-29/MCC7.G.3)
- analyze, explain, and solve problems involving the relationship of the circumference of a circle, its diameter, and  $\pi$  (CCGPS) (7MA\_D2012-30/MCC7.G.4)
- compute and solve problems involving the area of a circle by partitioning, tiling, and using a formula (CCGPS) (7MA\_D2012-31/MCC7.G.4)
- determine an informal derivation of the relationship between the circumference and the area of a circle (CCGPS) (7MA\_D2012-32/MCC7.G.4)
- write and solve equations for an unknown angle in a figure using facts about supplementary, complementary, vertical, and adjacent angles (CCGPS) (7MA\_D2012-33/MCC7.G.5)
- compute and solve real-world problems involving area of two-dimensional figures composed of triangles and quadrilaterals, and volume of right prisms (CCGPS) (7MA\_D2012-34/MCC7.G.6)
- compute and solve real-world problems involving surface area of right rectangular prisms (CCGPS) (7MA\_D2012-35/MCC7.G.6)

### **E - Statistics and Probability**

- explain how a random sample is used to improve the chance of selecting a representative sample and supports valid inferences (CCGPS) (7MA\_E2012-36/MCC7.SP.1)
- generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions (CCGPS) (7MA\_E2012-37/MCC7.SP.2)

**E - Statistics and Probability (continued)**

- draw inferences from a random sample about a population with an unknown characteristic of interest (CCGPS) (7MA\_E2012-38/MCC7.SP.2)
- compare and contrast multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions (CCGPS) (7MA\_E2012-39/MCC7.SP.2)
- compare and contrast the degree of visual overlap of two numerical data distributions with similar variabilities, informally measuring the difference between the centers by expressing it as a multiple of a measure of variability (mean absolute deviation) (CCGPS) (7MA\_E2012-40/MCC7.SP.3)
- use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations (CCGPS) (7MA\_E2012-41/MCC7.SP.4)
- use probabilities to predict the likelihood of an event (between zero and one) and represent the probability as a ratio (CCGPS) (7MA\_E2012-42/MCC7.SP.5)
- explain how experimental probability approaches theoretical probability when the number of trials is large (CCGPS) (7MA\_E2012-43/MCC7.SP.6)
- conduct trials/simulations and analyze the relationship between experimental and theoretical probability (CCGPS) (7MA\_E2012-44/MCC7.SP.7)
- compare probabilities from a model to observed frequencies and explain possible sources of discrepancy, if present (CCGPS) (7MA\_E2012-45/MCC7.SP.7)
- develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events (CCGPS) (7MA\_E2012-46/MCC7.SP.7\_a)
- develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process (CCGPS) (7MA\_E2012-47/MCC7.SP.7\_b)
- determine the probability of compound simple events (CCGPS) (7MA\_E2012-48/MCC7.SP.8)
- explain that a compound event is the fraction of outcomes in the sample space for which the compound event occurs (CCGPS) (7MA\_E2012-49/MCC7.SP.8\_a)
- represent sample spaces using tree diagrams, lists, simulations, and tables to identify the outcomes in the sample space which compose the event; for an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event (CCGPS) (7MA\_E2012-50/MCC7.SP.8\_b)
- design and use simulation to generate frequencies for compound events (CCGPS) (7MA\_E2012-51/MCC7.SP.8\_c)

**TB - The Number System**

- model and demonstrate that all positive and negative numbers represent quantities that have opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge) (CCGPS) (7MA\_TB2012-52/MCC6.NS.5)
- recognize that a rational number is 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 (CCGPS) (7MA\_TB2012-53/MCC6.NS.6)
- recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of a number is the number itself (e.g.,  $-(-3) = 3$ , and that 0 is its own opposite) (CCGPS) (7MA\_TB2012-54/MCC6.NS.6\_a)
- 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 (CCGPS) (7MA\_TB2012-55/MCC6.NS.6\_b)
- 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 (CCGPS) (7MA\_TB2012-56/MCC6.NS.6\_c)
- understand ordering and absolute value of rational numbers (CCGPS) (7MA\_TB2012-57/MCC6.NS.7)
- interpret statements of inequality as statements about the relative position of two numbers on a number line diagram (CCGPS) (7MA\_TB2012-58/MCC6.NS.7\_a)
- write, interpret, and explain statements of order for rational numbers in real-world contexts (CCGPS) (7MA\_TB2012-59/MCC6.NS.7\_b)

## 7th Grade

### **TB - The Number System (*continued*)**

- recognize 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 (CCGPS) (7MA\_TB2012-60/MCC6.NS.7\_c)
- distinguish comparisons of absolute value from statements about order (CCGPS) (7MA\_TB2012-61/MCC6.NS.7\_d)
- 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 (CCGPS) (7MA\_TB2012-62/MCC6.NS.8)

### **TC - Expressions and Equations**

- apply the properties of operations to generate equivalent expressions (CCGPS) (7MA\_TC2012-63/MCC6.EE.3)
- identify when two expressions are equivalent (e.g., when the two expressions name the same number regardless of which value is substituted into them) (CCGPS) (7MA\_TC2012-64/MCC6.EE.4)
- 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 (CCGPS) (7MA\_TC2012-65/MCC6.EE.6)
- 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 (CCGPS) (7MA\_TC2012-66/MCC6.EE.8)

### **TD - Geometry**

- 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 (CCGPS) (7MA\_TD2012-67/MCC6.G.3)

## **7th Grade Accelerated Math**

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### **A - The Number System**

- distinguish between rational and irrational numbers, such that rational numbers are those with decimal expansions that terminate in zeros or eventually repeat, and that all other numbers are called irrational (CCGPS) (7MAS\_A2012-1/MCC8.NS.1)
- recognize square roots as points and as lengths on a number line in order to compare the size of irrational numbers (CCGPS) (7MAS\_A2012-2/MCC8.NS.2)

### **B - Expressions and Equations**

- apply and know the properties of integer exponents to generate equivalent numerical expressions (CCGPS) (7MAS\_B2012-3/MCC8.EE.1)
- calculate small square roots of perfect squares and cube roots of small perfect cubes (know that radical 2 is irrational) (CCGPS) (7MAS\_B2012-4/MCC8.EE.2)
- express and use numbers in scientific notation to estimate very large or very small numbers (CCGPS) (7MAS\_B2012-5/MCC8.EE.3)
- compare numbers in scientific notation and determine how many times greater one value is than the other (CCGPS) (7MAS\_B2012-6/MCC8.EE.3)
- perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used (CCGPS) (7MAS\_B2012-7/MCC8.EE.4)
- interpret and use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (CCGPS) (7MAS\_B2012-8/MCC8.EE.4)
- graph proportional relationships, interpreting the unit rate as the slope of the graph (CCGPS) (7MAS\_B2012-9/MCC8.EE.5)

**B - Expressions and Equations (*continued*)**

- compare two different proportional relationships represented as verbal, tabular, graphic, and algebraic representations of functions (CCGPS) (7MAS\_B2012-10/MCC8.EE.5)
- determine the meaning of slope by using similar right triangles to explain why the slope  $m$  is the same between any two distinct points on a non-vertical line in the coordinate plane (CCGPS) (7MAS\_B2012-11/MCC8.EE.6)
- derive and graph linear equations in slope intercept form  $y = mx + b$  (CCGPS) (7MAS\_B2012-12/MCC8.EE.6)
- solve linear equations both algebraically and graphically, including examples of linear equations in one variable with one solution, infinitely many solutions or no solutions [e.g., equivalent equation of the form  $x = a$ ,  $a = a$ , or  $a = b$  results (where  $a$  and  $b$  are different numbers)] (CCGPS) (7MAS\_B2012-13/MCC8.EE.7/MCC8.EE.7\_a)
- solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and combining like terms (CCGPS) (7MAS\_B2012-14/MCC8.EE.7\_b)
- solve systems of equations algebraically and estimate solutions by graphing the equations (CCGPS) (7MAS\_B2012-15/MCC8.EE.8)
- correspond points of intersection of graphs to solutions to a system of two linear equations in two variables because points of intersection satisfy both equations simultaneously (CCGPS) (7MAS\_B2012-16/MCC8.EE.8\_a)
- solve systems of two linear equations in two variables algebraically and estimate solutions by graphing the equations; solve simple cases by inspection (CCGPS) (7MAS\_B2012-17/MCC8.EE.8\_b)
- solve real-world mathematical problems leading to two linear equations in two variables (CCGPS) (7MAS\_B2012-18/MCC8.EE.8\_c)

**C - Functions**

- describe and identify a function as a correspondence between inputs and outputs where each input has exactly one output (CCGPS) (7MAS\_C2012-19/MCC8.F.1)
- describe functions in a variety of representations, including the graph of a function that is the set of ordered pairs consisting of an input and the corresponding output (CCGPS) (7MAS\_C2012-20/MCC8.F.1)
- compare properties of two functions each represented among verbal, tabular, graphic and algebraic representations of functions (CCGPS) (7MAS\_C2012-21/MCC8.F.2)
- 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 (CCGPS) (7MAS\_C2012-22/MCC8.F.3)
- determine the equation of a line by constructing a function to model a relationship between two quantities (CCGPS) (7MAS\_C2012-23/MCC8.F.4)
- determine and 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 (CCGPS) (7MAS\_C2012-24/MCC8.F.4)
- create a graph that exhibits the qualitative features of the function that has been described verbally (e.g., where the function is increasing or decreasing, linear or nonlinear) (CCGPS) (7MAS\_C2012-25/MCC8.F.5)
- compare and contrast qualitatively between relations that are functions and by analyzing a graph (CCGPS) (7MAS\_C2012-26/MCC8.F.5)
- simplify, add, subtract, multiply, and divide radical expressions to include rationalizing denominators (7MAS\_C2012-27)

**D - Geometry**

- construct (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions, including constructing triangles from three measures of angles or sides and determining which measurements produce a unique triangle, more than one triangle, or no triangle (CCGPS) (7MAS\_D2012-28/MCC7.G.2)
- sketch, model, and describe a cross section of two-dimensional figures, right rectangular prisms, and right rectangular pyramids (CCGPS) (7MAS\_D2012-29/MCC7.G.3)
- analyze, explain, and solve problems involving the relationship of the circumference of a circle, its diameter, and pi (CCGPS) (7MAS\_D2012-30/MCC7.G.4)
- compute and solve problems involving the area of a circle by partitioning, tiling, and using a formula (CCGPS) (7MAS\_D2012-31/MCC7.G.4)

**D – Geometry (*continued*)**

- determine an informal derivation of the relationship between the circumference and the area of a circle (CCGPS) (7MAS\_D2012-32/MCC7.G.4)
- write and solve equations for an unknown angle in a figure using facts about supplementary, complementary, vertical, and adjacent angles (CCGPS) (7MAS\_D2012-33/MCC7.G.5)
- compute and solve real-world problems involving area of two-dimensional figures composed of triangles and quadrilaterals, and volume of right prisms (CCGPS) (7MAS\_D2012-34/MCC7.G.6)
- compute and solve real-world problems involving surface area of right rectangular prisms (CCGPS) (7MAS\_D2012-35/MCC7.G.6)
- model and verify the properties of basic translations, dilations, rotations, reflections, and relate symmetry to appropriate transformations (lines are taken to lines, and line segments to line segments of the same length; angles are taken to angles of the same measure; parallel lines are taken to parallel lines) (CCGPS) (7MAS\_D2012-36/MCC8.G.1)
- recognize a two-dimensional figure as congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations (CCGPS) (7MAS\_D2012-37/MCC8.G.2)
- describe a sequence of transformations, that when given, proves congruences between two figures (CCGPS) (7MAS\_D2012-38/MCC8.G.2)
- determine the coordinates resulting from translations, dilations, rotations or reflections when given a figure in the coordinate plane (CCGPS) (7MAS\_D2012-39/MCC8.G.3)
- recognize that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations and dilations (CCGPS) (7MAS\_D2012-40/MCC8.G.4)
- describe a sequence of transformations, that when given, proves similarity between two figures (CCGPS) (7MAS\_D2012-41/MCC8.G.4)
- apply properties of angle pairs formed by parallel lines cut by a transversal (CCGPS) (7MAS\_D2012-42/MCC8.G.5)
- analyze and establish facts about the angle sum and exterior angle of triangles, and the angle-angle criterion for similarity of triangles (CCGPS) (7MAS\_D2012-43/MCC8.G.5)
- recognize and interpret the Pythagorean theorem, and its converse, as a statement about the areas of squares on the sides of a right triangle (CCGPS) (7MAS\_D2012-44/MCC8.G.6)
- apply properties of right triangles, including the Pythagorean theorem, in real-world and mathematical problems within two- and three-dimensional figures (CCGPS) (7MAS\_D2012-45/MCC8.G.7)
- explain and apply the distance formula as an application of the Pythagorean theorem (CCGPS) (7MAS\_D2012-46/MCC8.G.8)
- solve real-world and mathematical problems involving the volume of cylinders, cones and spheres (CCGPS) (7MAS\_D2012-47/MCC8.G.9)

**E - Statistics and Probability**

- explain how a random sample is used to improve the chance of selecting a representative sample and supports valid inferences (CCGPS) (7MAS\_E2012-48/MCC7.SP.1)
- generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions (CCGPS) (7MAS\_E2012-49/MCC7.SP.2)
- draw inferences from a random sample about a population with an unknown characteristic of interest (CCGPS) (7MAS\_E2012-50/MCC7.SP.2)
- compare and contrast multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions (CCGPS) (7MAS\_E2012-51/MCC7.SP.2)
- compare and contrast the degree of visual overlap of two numerical data distributions with similar variabilities, informally measuring the difference between the centers by expressing it as a multiple of a measure of variability (mean absolute deviation) (CCGPS) (7MAS\_E2012-52/MCC7.SP.3)
- use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations (CCGPS) (7MAS\_E2012-53/MCC7.SP.4)
- use probabilities to predict the likelihood of an event (between zero and one) and represent the probability as a ratio (CCGPS) (7MAS\_E2012-54/MCC7.SP.5)

**E - Statistics and Probability (continued)**

- 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 (e.g., when rolling a number cube 600 times, predict that a 3 would be rolled roughly 100 times, but probably not exactly 100 times) (CCGPS) (7MAS\_E2012-55/MCC7.SP.6)
- conduct trials/simulations and analyze the relationship between experimental and theoretical probability (CCGPS) (7MAS\_E2012-56/MCC7.SP.7)
- compare probabilities from a model to observed frequencies and explain possible sources of discrepancy, if present (CCGPS) (7MAS\_E2012-57/MCC7.SP.7)
- develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events (CCGPS) (7MAS\_E2012-58/MCC7.SP.7\_a)
- develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process (CCGPS) (7MAS\_E2012-59/MCC7.SP.7\_b)
- determine the probability of compound simple events (CCGPS) (7MAS\_E2012-60/MCC7.SP.8)
- explain that a compound event is the fraction of outcomes in the sample space for which the compound event occurs (CCGPS) (7MAS\_E2012-61/MCC7.SP.8\_a)
- represent sample spaces using tree diagrams, lists, simulations, and tables to identify the outcomes in the sample space which compose the event; for an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event (CCGPS) (7MAS\_E2012-62/MCC7.SP.8\_b)
- design and use simulation to generate frequencies for compound events (CCGPS) (7MAS\_E2012-63/MCC7.SP.8\_c)
- gather data that can be modeled with a linear function to investigate patterns of association between two quantities (CCGPS) (7MAS\_E2012-64/MCC8.SP.1)
- construct and interpret scatter plots for bivariate measurements (CCGPS) (7MAS\_E2012-65/MCC8.SP.1)
- describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association (CCGPS) (7MAS\_E2012-66/MCC8.SP.1)
- estimate and determine the line of best fit from a scatter plot and informally assess the accuracy of the model by judging the closeness of the data points to the line (CCGPS) (7MAS\_E2012-67/MCC8.SP.2)
- apply the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting slope and intercept (CCGPS) (7MAS\_E2012-68/MCC8.SP.3)
- recognize that patterns of association can be seen in bivariate categorical data by displaying frequencies and relative frequencies in a table (CCGPS) (7MAS\_E2012-69/MCC8.SP.4)
- construct and interpret a table summarizing data on two categorical variables collected from the same subjects (CCGPS) (7MAS\_E2012-70/MCC8.SP.4)
- use relative frequencies calculated for rows or columns to describe possible association between the two variables (CCGPS) (7MAS\_E2012-71/MCC8.SP.4)

**TB - Expressions and Equations**

- 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 (CCGPS) (7MAS\_TB2012-72/MCC7.EE.4)
- solve word problems leading to inequalities of the form  $px + q > r$  or  $px + q < r$ , where  $p$ ,  $q$ ,  $r$  are specific rational numbers; graph the solution set of the inequality and interpret it in the context of the problem (CCGPS) (7MAS\_TB2012-73/MCC7.EE.4\_b)

**TD - Geometry**

- 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 (CCGPS) (7MAS\_TD2012-74/MCC6.G.3)

## Science

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### A - Characteristics of Science

- identify questions and problems that can be answered and solved through scientific inquiry (GPS, ITBS, ACT) (7SC\_A2005-1)
- design and conduct investigations using scientific method (GPS, ITBS, ACT) (7SC\_A2005-2)
- apply standard safety practices for all classroom laboratory and field investigations (GPS) (7SC\_A2005-3)
- use appropriate scientific tools, techniques, and technologies to gather, analyze, and interpret data (GPS, ITBS, ACT) (7SC\_A2005-4)
- apply computation and estimation skills necessary for analyzing data and developing conclusions (GPS, ACT) (7SC\_A2005-5)
- think critically and logically about relationships between evidence and explanations (GPS, ITBS, ACT) (7SC\_A2005-6)
- communicate scientific ideas clearly (GPS, ACT) (7SC\_A2005-7)
- read scientific materials to establish context for subject matter, develop vocabulary, and to be aware of current research (GPS) (7SC\_A2005-8)
- analyze the importance of understanding systems, models, and scales when exploring scientific and technological matters (GPS) (7SC\_A2005-9)
- discuss the importance of curiosity, honesty, openness, and skepticism in science and exhibit these traits in efforts to understand how the world works (7SC\_A2006-1)

### B - Ecology

- compare and contrast food/energy requirements of different organisms (7SC\_B2005-10)
- examine the dependence of all organisms on one another and their environments (GPS) (7SC\_B2005-11)
- describe the characteristics of Earth's major terrestrial biomes (tropical rain forest, savannah, temperate, desert, taiga, tundra, and mountain) and aquatic communities (freshwater, estuaries, and marine) (GPS, ITBS) (7SC\_B2005-12)
- assess how changes in environmental conditions can affect the survival of both individuals and entire species and cause them to become endangered or extinct (GPS, ITBS, CE) (7SC\_B2005-13)

### C - Evolution

- examine the evolution of living organisms through inherited characteristics that promote survival of organisms and the survival of successive generations of their offspring (GPS) (7SC\_C2005-14)

### D - Cells and Systems

- identify the cell as a basic unit and structure of all organisms (GPS, ITBS) (7SC\_D2005-15)
- explain how the human body is composed of organ systems functioning together (GPS, ITBS) (7SC\_D2005-16)

### E - Genetics

- explain how biological traits are passed to successive generations (GPS) (7SC\_E2005-17)

### F - Classification

- use external and internal features to classify and compare organisms (simple to complex) (ITBS) (7SC\_F2005-18)
- investigate the diversity of living organisms and how they can be compared scientifically (GPS) (7SC\_F2005-19)
- compare and contrast mechanisms by which organisms reproduce (7SC\_F2005-20)

## Social Studies

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### A - Map and Globe Skills

- use cardinal directions (GPS) (7SS\_A2009-1)
- use intermediate directions (GPS) (7SS\_A2009-2)
- use a letter/number grid system to determine location (GPS) (7SS\_A2009-3)
- compare and contrast the categories of natural, cultural, and political features found on maps (GPS) (7SS\_A2009-4)
- use customary and metric map scales to determine distance on a map (GPS) (7SS\_A2009-5)
- use map key/legend to acquire information from historical, physical, political, resource, product, and economic maps (GPS) (7SS\_A2009-6)
- use a map to explain the impact of geography on historical and current events (GPS) (7SS\_A2009-7)
- draw conclusions and make generalizations based on information from maps (GPS) (7SS\_A2009-8)
- use latitude and longitude to determine location (GPS) (7SS\_A2009-9)
- use graphic scales to determine distances on a map (GPS) (7SS\_A2009-10)
- compare maps of the same place at different points in time and from different perspectives to determine changes, identify trends, and generalize about human activities (GPS) (7SS\_A2009-11)
- compare maps with data sets (charts, tables, graphs) and/or readings to draw conclusions and make generalizations (GPS) (7SS\_A2009-12)

### B - Information and Processing Skills

- compare similarities and differences (GPS) (7SS\_B2009-13)
- organize items chronologically (GPS) (7SS\_B2009-14)
- identify issues and/or problems and alternative solutions (GPS) (7SS\_B2009-15)
- distinguish between fact and opinion (GPS) (7SS\_B2009-16)
- identify main idea, detail, sequence of events, and cause and effect in a social studies context (GPS) (7SS\_B2009-17)
- identify and use primary and secondary sources (GPS) (7SS\_B2009-18)
- interpret timelines (GPS) (7SS\_B2009-19)
- identify social studies reference resources to use for a specific purpose (GPS) (7SS\_B2009-20)
- construct charts and tables (GPS) (7SS\_B2009-21)
- analyze artifacts (GPS) (7SS\_B2009-22)
- draw conclusions and make generalizations (GPS) (7SS\_B2009-23)
- analyze graphs and diagrams (GPS) (7SS\_B2009-24)
- translate dates into centuries, eras, or ages (GPS) (7SS\_B2009-25)
- formulate appropriate research questions (GPS) (7SS\_B2009-26)
- determine adequacy and/or relevancy of information (GPS) (7SS\_B2009-27)
- check for consistency of information (GPS) (7SS\_B2009-28)
- interpret political cartoons (GPS) (7SS\_B2009-29)
- examine personal money management choices in terms of income, spending, credit, saving, and investing (GPS) (7SS\_B2009-30)

### C - Africa

- locate selected features of Africa (GPS) (7SS\_C2009-31)
- examine environmental issues across the continent of Africa (GPS) (7SS\_C2009-32)
- explain the impact of location, climate, and physical characteristics on population distribution in Africa (GPS) (7SS\_C2009-33)
- examine the diverse cultures of the people who live in Africa (GPS) (7SS\_C2009-34)
- compare and contrast various forms of government (GPS) (7SS\_C2009-35)
- explain the structures of the modern governments of Africa (GPS) (7SS\_C2009-36)
- analyze how politics in Africa impacts standard of living (GPS) (7SS\_C2009-37)

**C – Africa (*continued*)**

- analyze different economic systems (GPS) (7SS\_C2009-38)
- explain how voluntary trade benefits buyers and sellers in Africa (GPS) (7SS\_C2009-39)
- analyze factors that influence economic growth and examine their presence or absence in Nigeria and South Africa (GPS) (7SS\_C2009-40)
- analyze continuity and change in Africa leading to the 21st century (GPS) (7SS\_C2009-41)

**D - Southwest Asia (Middle East)**

- locate selected features in Southwestern Asia (Middle East) (GPS) (7SS\_D2009-42)
- examine environmental issues across Southwest Asia (Middle East) (GPS) (7SS\_D2009-43)
- explain the impact of location, climate, physical characteristics, distribution of natural resources, and population distribution on Southwest Asia (Middle East) (GPS) (7SS\_D2009-44)
- examine the diverse cultures of the people who live in Southwest Asia (Middle East) (GPS) (7SS\_D2009-45)
- explain the structures of the national governments of Southwest Asia (Middle East) (GPS) (7SS\_D2009-46)
- compare and contrast the economic systems in Israel, Saudi Arabia, and Turkey (GPS) (7SS\_D2009-47)
- explain how voluntary trade benefits buyers and sellers in Southwest Asia (Middle East) (GPS) (7SS\_D2009-48)
- analyze factors that influence economic growth and examine their presence or absence in Israel, Saudi Arabia, and Iran (GPS) (7SS\_D2009-49)
- analyze continuity and change in Southwest Asia (Middle East) leading to the 21st century (GPS) (7SS\_D2009-50)

**E - Southern and Eastern Asia**

- locate selected features in Southern and Eastern Asia (GPS) (7SS\_E2009-51)
- examine environmental issues across Southern and Eastern Asia (GPS) (7SS\_E2009-52)
- explain the impact of location, climate, physical characteristics, distribution of natural resources, and population distribution on Southern and Eastern Asia (GPS) (7SS\_E2009-53)
- analyze the diverse cultures of the people who live in Southern and Eastern Asia (GPS) (7SS\_E2009-54)
- describe the national governments in Southern and Eastern Asia (GPS) (7SS\_E2009-55)
- compare and contrast the economic systems in China, India, Japan, and North Korea (GPS) (7SS\_E2009-56)
- explain how voluntary trade benefits buyers and sellers in Southern and Eastern Asia (GPS) (7SS\_E2009-57)
- describe factors that influence economic growth and examine their presence or absence in India, China, and Japan (GPS) (7SS\_E2009-58)
- analyze continuity and change in Southern and Eastern Asia leading to the 21st century (GPS) (7SS\_E2009-59)

## Intermediate Band

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### A - Skills and Techniques/Performance

- sing, alone and with others, a varied repertoire of music (GPS) (7BA\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (7BA\_A2011-2)
- read and notate music (GPS) (7BA\_A2011-3)

### B - Creation

- improvise melodies, variations, and accompaniments (GPS) (7BA\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (7BA\_B2011-5)

### C - Critical Analysis/Investigation

- listen to, analyze, and describe music (GPS) (7BA\_C2011-6)
- evaluate music and music performances (GPS) (7BA\_C2011-7)

### D - Cultural and Historical Context

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (7BA\_D2011-8)
- connect the relationship of music to history and culture (GPS) (7BA\_D2011-9)

## Biotechnology

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### A - Characteristics of Science

- discuss the importance of curiosity, honesty, openness, and skepticism in science and exhibit these traits in efforts to understand how the world works (7BI\_A2011-1)
- design and conduct scientific investigations (7BI\_A2011-2)
- use standard safety practices for all classroom laboratory and field investigations (7BI\_A2011-3)
- use technology to collect, observe, measure, and organize data (7BI\_A2011-4)
- use valid critical assumptions to draw conclusions (7BI\_A2011-5)
- apply computation and estimation skills necessary for analyzing data and developing conclusions (7BI\_A2011-6)
- communicate scientific investigations and information clearly (7BI\_A2011-7)

### B - Academic Knowledge

- define biotechnology and explain its application in society (7BI\_B2011-8)
- describe the ethical, moral, and legal issues in the modern world of biotechnology (7BI\_B2011-9)
- describe the types of careers available in biotechnology (7BI\_B2011-10)
- explain how basic chemistry concepts affect living organisms (7BI\_B2011-11)
- analyze basic skills/technologies necessary to be successful in the biotechnology workplace (7BI\_B2011-12)
- describe how biotechnology products are introduced and marketed (7BI\_B2011-13)

### C - Literacy Standards

- cite specific textual evidence to support analysis of technical texts (CCGPS) (7BI\_C2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (7BI\_C2012-2)
- follow precisely a multistep procedure when performing technical tasks (CCGPS) (7BI\_C2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (7BI\_C2012-4)
- 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 (CCGPS) (7BI\_C2012-5)

## 7th Grade

### **C - Literacy Standards (*continued*)**

- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (7BI\_C2012-6)
- 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) (CCGPS) (7BI\_C2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (7BI\_C2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (7BI\_C2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (7BI\_C2012-10)
- write arguments focused on discipline-specific content (CCGPS) (7BI\_C2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (7BI\_C2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (7BI\_C2012-13)
- 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 (CCGPS) (7BI\_C2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (7BI\_C2012-15)
- 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 (CCGPS) (7BI\_C2012-16)
- 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 (CCGPS) (7BI\_C2012-17)
- draw evidence from informational texts to support analysis, reflection, and research (CCGPS) (7BI\_C2012-18)
- 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 (CCGPS) (7BI\_C2012-19)

## **Business and Computer Science**

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### **A - Keyboarding Skills**

- build and expand proficiency in keyboarding (GPS) (7CS\_A2009-1)

### **B - 21st Century Skills**

- demonstrate employability skills (GPS) (7CS\_B2009-2)
- examine pathways to a successful career in Business and Computer Science (GPS) (7CS\_B2009-3)

### **C - Computer Applications**

- utilize word processing software to create, edit, and manipulate word processing documents (GPS) (7CS\_C2009-4)
- utilize spreadsheet software to create, edit, and manipulate spreadsheet documents (GPS) (7CS\_C2009-5)
- utilize database software to create, edit, and manipulate a database (GPS) (7CS\_C2009-6)
- utilize multimedia software to create, edit, and manipulate a multimedia presentation (GPS) (7CS\_C2009-7)
- utilize software related to web page design to plan, design, and create a web page (GPS) (7CS\_C2009-8)

### **D - Programming**

- design a given program to demonstrate an understanding of basic programming concepts (GPS) (7CS\_D2009-9)

**E - Internet and Safety**

- investigate the accuracy of Internet-based information (GPS) (7CS\_E2009-10)
- distinguish between ethical and unethical behaviors when using the Internet (GPS) (7CS\_E2009-11)
- distinguish among various types of networks (GPS) (7CS\_E2009-12)

**F - Introduction to Business**

- identify concepts and fundamentals of entrepreneurship and business ownership (GPS) (7CS\_F2009-13)

**G - Literacy Standards**

- cite specific textual evidence to support analysis of technical texts (CCGPS) (7CS\_G2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (7CS\_G2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (7CS\_G2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (7CS\_G2012-4)
- 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 (CCGPS) (7CS\_G2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (7CS\_G2012-6)
- 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) (CCGPS) (7CS\_G2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (7CS\_G2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (7CS\_G2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (7CS\_G2012-10)
- write arguments focused on discipline-specific content (CCGPS) (7CS\_G2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (7CS\_G2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (7CS\_G2012-13)
- 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 (CCGPS) (7CS\_G2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (7CS\_G2012-15)
- 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 (CCGPS) (7CS\_G2012-16)
- 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 (CCGPS) (7CS\_G2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (7CS\_G2012-18)
- 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 (CCGPS) (7CS\_G2012-19)

## Career Connections

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### A - Interpersonal Skills

- apply positive interpersonal skills to class and community situations (GPS) (7CC\_A2011-1)

### B - Management Skills

- apply management skills to everyday lives (GPS) (7CC\_B2011-2)

### C - Employability Skills

- explore employability and educational options (GPS) (7CC\_C2011-3)

### D - Literacy Standards

- cite specific textual evidence to support analysis of technical texts (CCGPS) (7CC\_D2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (7CC\_D2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (7CC\_D2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (7CC\_D2012-4)
- 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 (CCGPS) (7CC\_D2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (7CC\_D2012-6)
- 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) (CCGPS) (7CC\_D2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (7CC\_D2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (7CC\_D2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (7CC\_D2012-10)
- write arguments focused on discipline-specific content (CCGPS) (7CC\_D2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (7CC\_D2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (7CC\_D2012-13)
- 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 (CCGPS) (7CC\_D2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (7CC\_D2012-15)
- 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 (CCGPS) (7CC\_D2012-16)
- 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 (CCGPS) (7CC\_D2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (7CC\_D2012-18)
- 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 (CCGPS) (7CC\_D2012-19)

## Intermediate Chorus

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### A - Skills and Techniques/Performance

- sing, alone and with others, a varied repertoire of music (GPS) (7CH\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (7CH\_A2011-2)
- read and notate music (GPS) (7CH\_A2011-3)

### B - Creation

- improvise melodies, variations, and accompaniments (GPS) (7CH\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (7CH\_B2011-5)

### C - Critical Analysis/Investigation

- listen to, analyze, and describe music (GPS) (7CH\_C2011-6)
- evaluate music and music performances (GPS) (7CH\_C2011-7)

### D - Cultural and Historical Context

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (7CH\_D2011-8)
- understand music in relation to history and culture (GPS) (7CH\_D2011-9)

## Engineering and Technology

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### A - Academic Knowledge

- examine the concepts of invention and innovation (GPS) (7ET\_A2009-1)
- examine the core concepts of engineering and technology (GPS) (7ET\_A2009-2)
- demonstrate engineering design and problem-solving skills (GPS) (7ET\_A2009-3)
- invent or innovate a technological product (GPS) (7ET\_A2009-4)
- examine the impact of inventions and innovations on society (GPS) (7ET\_A2009-5)
- develop leadership skills and work ethics (GPS) (7ET\_A2009-6)
- examine and research careers in fields related to engineering and technology (GPS) (7ET\_A2009-7)

### B - Literacy Standards

- cite specific textual evidence to support analysis of technical texts (CCGPS) (7ET\_B2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (7ET\_B2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (7ET\_B2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (7ET\_B2012-4)
- 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 (CCGPS) (7ET\_B2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (7ET\_B2012-6)
- 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) (CCGPS) (7ET\_B2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (7ET\_B2012-8)

## 7th Grade

### **B - Literacy Standards (*continued*)**

- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (7ET\_B2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (7ET\_B2012-10)
- write arguments focused on discipline-specific content (CCGPS) (7ET\_B2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (7ET\_B2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (7ET\_B2012-13)
- 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 (CCGPS) (7ET\_B2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (7ET\_B2012-15)
- 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 (CCGPS) (7ET\_B2012-16)
- 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 (CCGPS) (7ET\_B2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (7ET\_B2012-18)
- 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 (CCGPS) (7ET\_B2012-19)

## **Family and Consumer Science**

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### **A - Careers**

- research careers in the areas of culinary arts, consumer services, early childhood education, nutrition and food science, interior and fashion design, education, and leadership (GPS) (7FC\_A2011-1)

### **B - Safety**

- utilize standard safety practices for all classroom laboratory and field investigations (GPS) (7FC\_B2011-2)

### **C - Food and Nutrition**

- apply principles of food science, food technology, and nutrition and their relationships to growth, development, health, and wellness to support informed decision-making that promotes good health (GPS) (7FC\_C2011-3)
- demonstrate food preparation skills (GPS) (7FC\_C2011-4)
- identify and demonstrate acceptable behaviors for table service and meal-time behaviors (GPS) (7FC\_C2011-5)

### **D - Child Development**

- analyze human growth and development and demonstrate the integration of knowledge, skills, and practices of the caregiver (GPS) (7FC\_D2011-6)

### **E - Personal Finance**

- analyze social and financial skills needed to develop personal independence and interpersonal relationships (GPS) (7FC\_E2011-7)
- explain personal money management choices in terms of income, spending, credit, saving, and investing (GPS) (7FC\_E2011-8)

**F - Housing**

- analyze factors affecting housing and interior design decisions for individuals and families (GPS) (7FC\_F2011-9)

**G - Textiles**

- investigate factors affecting textile and apparel decisions for individuals and families (GPS) (7FC\_G2011-10)

**H - Leadership**

- demonstrate teamwork, leadership skills, and knowledge to become leaders in the family, workplace, and community (GPS) (7FC\_H2011-11)

**I - Literacy Standards**

- cite specific textual evidence to support analysis of technical texts (CCGPS) (7FC\_I2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (7FC\_I2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (7FC\_I2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (7FC\_I2012-4)
- 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 (CCGPS) (7FC\_I2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (7FC\_I2012-6)
- 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) (CCGPS) (7FC\_I2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (7FC\_I2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (7FC\_I2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (7FC\_I2012-10)
- write arguments focused on discipline-specific content (CCGPS) (7FC\_I2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (7FC\_I2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (7FC\_I2012-13)
- 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 (CCGPS) (7FC\_I2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (7FC\_I2012-15)
- 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 (CCGPS) (7FC\_I2012-16)
- 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 (CCGPS) (7FC\_I2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (7FC\_I2012-18)
- 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 (CCGPS) (7FC\_I2012-19)

## General Music

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### A - Skills and Techniques/Performance

- sing, alone and with others, a varied repertoire of music (GPS) (7GM\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (7GM\_A2011-2)
- read and notate music (GPS) (7GM\_A2011-3)

### B - Creation

- improvise melodies, variations, and accompaniments (GPS) (7GM\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (7GM\_B2011-5)

### C - Critical Analysis/Investigation

- listen to, analyze, and describe music (GPS) (7GM\_C2011-6)
- evaluate music and music performances (GPS) (7GM\_C2011-7)

### D - Cultural and Historical Context

- compare relationships between music, the other arts, and disciplines outside the arts (GPS) (7GM\_D2011-8)
- investigate music in relation to history and culture (GPS) (7GM\_D2011-9)

## Intermediate Guitar

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### A - Skills and Techniques/Performance

- sing, alone and with others, a varied repertoire of music (GPS) (7GU\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (7GU\_A2011-2)
- read and notate music (GPS) (7GU\_A2011-3)

### B - Creation

- improvise melodies, variations, and accompaniments (GPS) (7GU\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (7GU\_B2011-5)

### C - Critical Analysis/Investigation

- listen to, analyze, and describe music (GPS) (7GU\_C2011-6)
- evaluate music and music performances (GPS) (7GU\_C2011-7)

### D - Cultural and Historical Context

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (7GU\_D2011-8)
- understand music in relation to history and culture (GPS) (7GU\_D2011-9)

## Health

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### A - First Aid

- identify life threatening emergencies and the care for each (GPS) (7HE\_A2009-1)

### B - Safety

- discriminate between risk-taking behaviors that lead toward positive consequences and those that can have destructive consequences (GPS) (7HE\_B2009-2)

**C - Personal Care**

- analyze how environmental, genetic, and behavioral factors affect health (GPS) (7HE\_C2009-3)

**D - Disease Prevention**

- identify strategies for preventing, detecting, and controlling infectious diseases (GPS) (7HE\_D2009-4)
- identify strategies for preventing, detecting, and controlling infectious sexually transmitted diseases (GPS) (7HE\_D2009-5)

**E - Tobacco, Alcohol, and Other Drugs**

- evaluate the harmful consequences that result from illegal drug use including anabolic steroid use (GPS) (7HE\_E2009-6)
- analyze the effects of drugs on body systems (GPS) (7HE\_E2009-7)
- analyze drug advertisements and promotional products and develop counter-arguments (GPS) (7HE\_E2009-8)
- identify information on treatment and rehabilitation resources available in the community (GPS) (7HE\_E2009-9)

**F - Nutrition**

- examine the relationship between body image and weight control (GPS) (7HE\_F2009-10)
- examine the effects of unsafe weight-loss methods and the characteristics of a safe weight-loss program (GPS) (7HE\_F2009-11)

**G - Emotional Expression/Mental Health**

- demonstrate ways to communicate care, consideration, and respect of self and others (GPS) (7HE\_G2009-12)
- recognize signs and symptoms associated with stress and identify appropriate sources for help (GPS) (7HE\_G2009-13)

**H - Family Life**

- analyze the changes in prospective parents' lifestyle and responsibilities before and after the birth of a baby (GPS) (7HE\_H2009-14)
- recognize that sexual behaviors are conscious decisions and the importance of saying "no" to premarital and inappropriate sexual relations (GPS) (7HE\_H2009-15)
- recognize abstinence from sexual activity as the only sure method of preventing pregnancy and sexually transmitted diseases (GPS) (7HE\_H2009-16)
- identify methods of preventing pregnancy and sexually transmitted diseases and their degrees of effectiveness or lack thereof (GPS) (7HE\_H2009-17)

**I - Anatomy and Physiology**

- list the parts of the male and female reproductive systems and describe their functions (GPS) (7HE\_I2009-18)
- identify the parts and function of the cardiorespiratory, endocrine, and digestive systems (GPS) (7HE\_I2009-19)

## Journalism

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**A - Journalism**

- prewrite to generate ideas for writing (QCC) (7JO\_A2010-1)
- draft writing to capture ideas and develop fluency (QCC) (7JO\_A2010-2)
- revise writing to match purposes with audience and to improve content, organization, and style (QCC) (7JO\_A2010-3)
- revise writing to eliminate wordiness (QCC) (7JO\_A2010-4)
- edit for spelling, fragments, and run-on sentences (QCC) (7JO\_A2010-5)
- use writing handouts, grammar checkers, and references to edit usage and mechanics (QCC) (7JO\_A2010-6)
- write to report answers to research questions (QCC) (7JO\_A2010-7)
- write, combine, and vary sentences to match purposes and audience (QCC) (7JO\_A2010-8)
- distinguish between fact and opinion (QCC) (7JO\_A2010-9)

## 7th Grade

### **A – Journalism (*continued*)**

- write Standard American English sentences with correct verb forms, punctuation, capitalization, possessives, plural forms, and other mechanics (QCC) (7JO\_A2010-10)
- recognize and write for a variety of purposes specific to journalism (e.g., news, editorials, and features) (QCC) (7JO\_A2010-11)
- defend editorial conclusions using credible facts, examples, illustrations, and details from various sources (QCC) (7JO\_A2010-12)
- read newspapers, charts, graphs, and technical documents for research (QCC) (7JO\_A2010-13)
- read critically, ask pertinent questions, recognize assumptions and implications, and evaluate ideas (QCC) (7JO\_A2010-14)
- identify, comprehend, and summarize who, what, when, where, and how in a variety of print and non-print resources (QCC) (7JO\_A2010-15)
- take notes in interviews and discussions and report accurately what others have said (QCC) (7JO\_A2010-16)
- use the research process (select a topic, formulate questions, identify key words, choose sources, skim, paraphrase, take notes, organize, summarize, and present ideas) (QCC) (7JO\_A2010-17)
- acquire new vocabulary through research and interview (QCC) (7JO\_A2010-18)
- use a variety of print and non-print resources as parts of the research for stories (QCC) (7JO\_A2010-19)
- prioritize tasks to meet deadlines (QCC) (7JO\_A2010-20)
- work as a team member to solve problems (QCC) (7JO\_A2010-21)
- recognize speaker's purpose and identify verbal and nonverbal components of communication (body language, facial expressions, gestures) (QCC) (7JO\_A2010-22)
- speak so others can hear and understand (QCC) (7JO\_A2010-23)

### **B - Technology and Production/Publication Skills**

- demonstrate ability to use appropriate medium for production/publications (e.g., desktop publishing for print journalism or video equipment for broadcast journalism) (QCC) (7JO\_B2010-24)
- plan interviews by developing questions for print and/or broadcast stories (QCC) (7JO\_B2010-25)
- conduct, record, and accurately report information from interviews (QCC) (7JO\_B2010-26)
- utilize pre-writes, story boards, or split-page format for story development (QCC) (7JO\_B2010-27)
- prepare and refine print articles/script for publication/production (QCC) (7JO\_B2010-28)

### **C - Knowledge of Journalism Ethics**

- understand and practice ethical reporting avoiding bias, slander, and plagiarism (QCC) (7JO\_C2010-29)

### **D - Knowledge of Journalism Careers**

- identify career opportunities in journalism (e.g., editor-in-chief, editor, reporter, photojournalist, copy reader, advertisement sales, graphic artist) (QCC) (7JO\_D2010-30)

## **Latin I**

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### **A - Communication**

- read authentic and edited passages appropriate for Latin I (GPS) (7L1\_A2009-1)
- comprehend spoken Latin phrases, quotations, and expressions (GPS) (7L1\_A2009-2)
- provide accurate, written English translations (GPS) (7L1\_A2009-3)
- write simple phrases and sentences in Latin as part of the process for understanding written Latin (GPS) (7L1\_A2009-4)
- read passages aloud with proper intonation and rhythm (GPS) (7L1\_A2009-5)

**B - Culture**

- demonstrate an understanding of perspectives, practices, and products of the Greco-Roman culture (GPS) (7L1\_B2009-6)
- interpret cultural practices of the Romans (GPS) (7L1\_B2009-7)

**C - Connections, Comparisons, and Communities**

- reinforce and further the knowledge of other disciplines through the study of Latin (GPS) (7L1\_C2009-8)
- acquire information and recognize distinctive viewpoints via the study of Latin and the Greco-Roman civilization (GPS) (7L1\_C2009-9)
- identify situations and resources in which Latin skills and cultural knowledge may be applied beyond the classroom setting for recreational, educational, and occupational purposes (GPS) (7L1\_C2009-10)

## Modern Languages Connections

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**A - Communication**

- exchange basic greetings, farewells, and expressions of courtesy orally and in writing (GPS) (7MLC\_A2009-1)
- respond to classroom directions (GPS) (7MLC\_A2009-2)
- identify vocabulary and respond to simple questions on a variety of topics such as weather, time, family, home, school, and food (GPS) (7MLC\_A2009-3)
- manipulate common sequences such as alphabet, calendar, and numbers (GPS) (7MLC\_A2009-4)
- identify main ideas and basic details while reading or listening when strongly supported by context or illustrations (GPS) (7MLC\_A2009-5)

**B - Culture**

- develop an awareness of perspectives, practices, and products of the cultures where the target language is spoken (GPS) (7MLC\_B2009-6)

**C - Connections, Comparisons, and Communities**

- discuss academic and/or career benefits of language study (GPS) (7MLC\_C2009-7)
- use information acquired in the study of the target language and information acquired in other subject areas to reinforce one another (GPS) (7MLC\_C2009-8)
- compare the cultures of the target language countries to those of the United States (GPS) (7MLC\_C2009-9)
- compare basic elements of the target language to the English language (GPS) (7MLC\_C2009-10)
- demonstrate an awareness of current events in the target cultures (GPS) (7MLC\_C2009-11)

## Modern Languages Level I

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**A - Communication: Interpersonal Mode**

- exchange simple spoken and written information in the target language (GPS) (7ML1\_A2009-1)
- conduct brief oral and written exchanges in the target language (GPS) (7ML1\_A2009-2)

**B - Communication: Interpretive Mode**

- demonstrate understanding of simple spoken and written language presented through a variety of media in the target language based on a variety of topics (GPS) (7ML1\_B2009-3)
- interpret verbal and nonverbal cues to understand simple spoken and written messages in the target language (GPS) (7ML1\_B2009-4)

## 7th Grade

### **C - Communication: Presentational Mode**

- present information orally and in writing containing a variety of vocabulary, phrases, and patterns (GPS) (7ML1\_C2009-5)
- present brief rehearsed material in the target language (GPS) (7ML1\_C2009-6)

### **D - Culture**

- identify perspectives, practices, and products of the culture(s) where the target language is spoken (GPS) (7ML1\_D2009-7)

### **E - Connections, Comparisons, and Communities**

- use information acquired in the study of the target language and information acquired in other subject areas to reinforce one another (GPS) (7ML1\_E2009-8)
- discuss the significance of culture through comparisons of the culture(s) studied and the students' own culture (GPS) (7ML1\_E2009-9)
- compare basic elements of the target language to the English language (GPS) (7ML1\_E2009-10)
- recognize current events in the target culture(s) (GPS) (7ML1\_E2009-11)
- identify situations and resources in which target language skills and cultural knowledge may be applied beyond the classroom setting for recreational, educational, and occupational purposes (GPS) (7ML1\_E2009-12)

## **Intermediate Orchestra**

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### **A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (7OR\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (7OR\_A2011-2)
- exhibit awareness of tuning mechanics (GPS) (7OR\_A2011-3)
- perform, identify, and notate music (GPS) (7OR\_A2011-4)
- understand instrument care and maintenance (GPS) (7OR\_A2011-5)

### **B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (7OR\_B2011-6)
- compose and arrange music within specified guidelines (GPS) (7OR\_B2011-7)

### **C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (7OR\_C2011-8)
- evaluate music and music performances (GPS) (7OR\_C2011-9)

### **D - Cultural and Historical Context**

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (7OR\_D2011-10)
- understand music in relation to history and culture (GPS) (7OR\_D2011-11)

## **Peer Leadership**

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### **A -**

- describe the role, functions, and characteristics of a peer leader (QCC) (7PL\_A1998-2)
- adhere to established ground rules and the National Peer Helping Association ethical guidelines (7PL\_A1998-3)
- explore and apply the fundamental characteristics of facilitative relationships and communication skills (QCC) (7PL\_A1998-4)

**A - (continued)**

- identify and demonstrate interpersonal skills necessary to maintain positive peer relationships (QCC) (7PL\_A1998-6)
- demonstrate an understanding of problem-solving and/or mediation techniques (QCC) (7PL\_A1998-7)
- identify methods of conflict/anger management (QCC) (7PL\_A1998-8)
- explore the concepts of prejudice and discrimination and their impact on peer relationships (QCC) (7PL\_A1998-9)
- identify elements of group interaction (QCC) (7PL\_A1998-10)
- utilize elements of successful group interactions by participating in a variety of roles within group settings (QCC) (7PL\_A1998-11)
- participate in assigned targeted groups within the school community (QCC) (7PL\_A1998-12)
- define positive and negative aspects of peer pressure (QCC) (7PL\_A1998-13)
- indicate a variety of alternatives to negative peer pressure (QCC) (7PL\_A1998-14)
- explore how personal responsibility relates to long- and short-range life and career goals (QCC) (7PL\_A1998-15)
- establish roles, responsibilities, and procedures related to peer tutoring including effective study habits, test-taking skills, and time management (QCC) (7PL\_A1998-16)
- demonstrate knowledge and skills of peer leadership intervention strategies in a variety of settings (7PL\_A1998-17)
- utilize knowledge and understanding gained through individual and/or group projects (7PL\_A1998-18)

## Physical Education

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**A - Fitness**

- participate in health-enhancing fitness activities (GPS) (7PE\_A2009-1)
- demonstrate progress toward or meet health-related fitness standards as defined by research (7PE\_A2009-2)
- apply basic training principles to improve cardiovascular fitness (7PE\_A2009-3)

**B - Motor Skills and Movement Patterns**

- demonstrate refined competency in throwing and catching (7PE\_B2009-4)
- demonstrate refined competency striking with a body part (7PE\_B2009-5)
- demonstrate refined competency in applying timing and rhythm sequences (7PE\_B2009-6)

**C - Movement Concepts and Principles**

- describe basic practice and conditioning principles that enhance performance (GPS) (7PE\_C2009-7)
- describe offensive and defensive strategies in modified settings (GPS) (7PE\_C2009-8)

**D - Personal and Social Behaviors**

- exhibit responsible personal and social behavior that respects self and others in physical activity settings (7PE\_D2009-9)
- demonstrate how to work cooperatively and productively in a group to accomplish a set goal in both cooperative and competitive settings (7PE\_D2009-10)

## Intermediate Piano

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**A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (7PI\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (7PI\_A2011-2)
- read and notate music (GPS) (7PI\_A2011-3)

## 7th Grade

### **B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (7PI\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (7PI\_B2011-5)

### **C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (7PI\_C2011-6)
- evaluate music and music performances (GPS) (7PI\_C2011-7)

### **D - Cultural and Historical Context**

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (7PI\_D2011-8)
- understand music in relation to history and culture (GPS) (7PI\_D2011-9)

## **Study Skills**

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### **A -**

- describe and demonstrate the attitudes and habits necessary for school success (7SK\_A1999-1)
- demonstrate appropriate and effective study methods (7SK\_A1999-2)
- set and work towards appropriate goals (7SK\_A1999-3)
- read for the purposes of gathering information and/or following directions (7SK\_A1999-4)
- learn appropriate listening skills (7SK\_A1999-5)
- demonstrate efficient organization and management of time (7SK\_A1999-6)
- demonstrate efficient organization and management of materials and space (7SK\_A1999-7)
- select and demonstrate appropriate problem-solving strategies (e.g., math word problems, brain teasers, personal problem-solving, and study methods) (7SK\_A1999-8)
- use graphic aids found in textbooks and other sources of information (e.g., maps, graphs, charts, and tables) (7SK\_A1999-9)
- identify appropriate test-taking strategies (7SK\_A1999-10)

## **Theatre Arts**

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### **A - Creation**

- analyze and construct meaning from theatrical experiences (GPS) (7TA\_A2011-1)
- develop scripts through various theatrical methods (GPS) (7TA\_A2011-2)
- develop and sustain character through theatrical activities (GPS) (7TA\_A2011-3)
- develop and create artistic and technical elements of theatre (GPS) (7TA\_A2011-4)
- plan, organize, and direct rehearsals for performance (GPS) (7TA\_A2011-5)
- demonstrate responsibility to the group through attendance, punctuality, cooperation, leadership, listening, preparation, and self-discipline (GPS) (7TA\_A2011-6)

### **B - Cultural and Historical Context**

- investigate historical and multicultural heritage related to theater activities (GPS) (7TA\_B2011-7)
- connect various art forms, other content areas, and life experiences through theatre activities (GPS) (7TA\_B2011-8)
- examine the cultural role of theatre (GPS) (7TA\_B2011-9)
- explore career opportunities in theatre (GPS) (7TA\_B2011-10)

**C - Critical Analysis/Investigation**

- evaluate theatre presentations using appropriate supporting evidence (GPS) (7TA\_C2011-11)

**Visual Arts**

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**A - Create, Design, Engage, and Connect**

- visualize and generate ideas with a variety of two-dimensional and three-dimensional art methods and materials to create through a process of authentic engagement (GPS) (7VA\_A2011-1)
- create artwork from personal experience by connecting background knowledge to current content (GPS) (7VA\_A2011-2)
- apply proper care and safe use of materials and tools (GPS) (7VA\_A2011-3)
- engage in the task at hand, collaborate effectively, and move smoothly among whole group, small group, and individual tasks (GPS) (7VA\_A2011-4)
- employ technology in the creation of art as a medium and resource (GPS) (7VA\_A2011-5)

**B - Perceive and Analyze**

- analyze artwork using the language of art (elements and principles) to develop ideas and resolve problems (GPS) (7VA\_B2011-6)
- interpret art through discussion and/or written reflection to respond to, apply, and communicate content (GPS) (7VA\_B2011-7)
- develop ability in visual communication to differentiate media in works of art (GPS) (7VA\_B2011-8)

**C - Investigate Contextual and Cultural Understanding**

- synthesize knowledge of values, themes, and aesthetics of different cultures and contexts (GPS) (7VA\_C2011-9)
- apply information from other disciplines to enhance understanding and production of artworks (GPS) (7VA\_C2011-10)
- expand knowledge of art as a profession and/or avocation (GPS) (7VA\_C2011-11)
- discover how the creative process relates to art history (GPS) (7VA\_C2011-12)

**D - Assess and Respond**

- engage in aesthetics and participate in dialogue about artwork using a variety of approaches (GPS) (7VA\_D2011-13)
- explore the process of critical analysis of art (description, interpretation, analysis, and judgment) using ones artwork or the artwork of others (GPS) (7VA\_D2011-14)

## Language Arts

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### A - Reading: Literature

- cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text (CCGPS) (8LA\_A2012-1/ELACC8RL1)
- 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 (CCGPS) (8LA\_A2012-2/ELACC8RL2)
- 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 (CCGPS) (8LA\_A2012-3/ELACC8RL3)
- 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 (CCGPS) (8LA\_A2012-4/ELACC8RL4)
- 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 (CCGPS) (8LA\_A2012-5/ELACC8RL5)
- 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 (CCGPS) (8LA\_A2012-6/ELACC8RL6)
- 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 (CCGPS) (8LA\_A2012-7/ELACC8RL7)
- 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 (CCGPS) (8LA\_A2012-8/ELACC8RL8)
- read and comprehend literature (e.g., stories, dramas, and poems, including texts by Georgia authors) at the high end of grades 6–8 text complexity band independently and proficiently, by the end of grade 8 (CCGPS) (8LA\_A2012-9/ELACC8RL9)

### B - Reading: Informational Text

- cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text (CCGPS) (8LA\_B2012-10/ELACC8RI1)
- 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 (CCGPS) (8LA\_B2012-11/ELACC8RI2)
- analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories) (CCGPS) (8LA\_B2012-12/ELACC8RI3)
- 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 (CCGPS) (8LA\_B2012-13/ELACC8RI4)
- 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 (CCGPS) (8LA\_B2012-14/ELACC8RI5)
- 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 (CCGPS) (8LA\_B2012-15/ELACC8RI6)
- evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea (CCGPS) (8LA\_B2012-16/ELACC8RI7)
- 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 (CCGPS) (8LA\_B2012-17/ELACC8RI8)
- 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 (CCGPS) (8LA\_B2012-18/ELACC8RI9)
- read and comprehend literary nonfiction at the high end of the grades 6–8 text complexity band independently and proficiently, by the end of grade 8 (CCGPS) (8LA\_B2012-19/ELACC8RI10)

**C - Writing**

- write arguments to support claims with clear reasons and relevant evidence (CCGPS) (8LA\_C2012-20/ELACC8W1)
- write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content (CCGPS) (8LA\_C2012-21/ELACC8W2)
- write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences (CCGPS) (8LA\_C2012-22/ELACC8W3)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (8LA\_C2012-23/ELACC8W4)
- develop and strengthen writing as needed, with some guidance and support from peers and adults, by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed (CCGPS) (8LA\_C2012-24/ELACC8W5)
- 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 (CCGPS) (8LA\_C2012-25/ELACC8W6)
- conduct short research projects to answer questions (including self-generated questions), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration (CCGPS) (8LA\_C2012-26/ELACC8W7)
- 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 (CCGPS) (8LA\_C2012-27/ELACC8W8)
- draw evidence from literary or informational texts to support analysis, reflection, and research (CCGPS) (8LA\_C2012-28/ELACC8W9)
- 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 (CCGPS) (8LA\_C2012-29/ELACC8W10)

**D - Speaking and Listening**

- 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 (CCGPS) (8LA\_D2012-30/ELACC8SL1)
- 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 (CCGPS) (8LA\_D2012-31/ELACC8SL2)
- 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 (CCGPS) (8LA\_D2012-32/ELACC8SL3)
- 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 (CCGPS) (8LA\_D2012-33/ELACC8SL4)
- integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest (CCGPS) (8LA\_D2012-34/ELACC8SL5)
- adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate (CCGPS) (8LA\_D2012-35/ELACC8SL6)

**E - Language**

- demonstrate command of the conventions of standard English grammar and usage when writing or speaking (CCGPS) (8LA\_E2012-36/ELACC8L1)
- demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing (CCGPS) (8LA\_E2012-37/ELACC8L2)
- use knowledge of language and its conventions when writing, speaking, reading, or listening (CCGPS) (8LA\_E2012-38/ELACC8L3)

### **E – Language (*continued*)**

- 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 (CCGPS) (8LA\_E2012-39/ELACC8L4)
- demonstrate understanding of figurative language, word relationships, and nuances in word meanings (CCGPS) (8LA\_E2012-40/ELACC8L5)
- 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 (CCGPS) (8LA\_E2012-41/ELACC8L6)

## **Introduction to Algebra and Geometry**

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### **A - The Number System**

- distinguish between rational and irrational numbers, such that rational numbers are those with decimal expansions that terminate in zeros or eventually repeat, and that all other numbers are called irrational (CCGPS) (8MA\_A2012-1/MCC8.NS.1)
- recognize square roots as points and as lengths on a number line in order to compare the size of irrational numbers (CCGPS) (8MA\_A2012-2/MCC8.NS.2)

### **B - Expressions and Equations**

- apply and know the properties of integer exponents to generate equivalent numerical expressions (CCGPS) (8MA\_B2012-3/MCC8.EE.1)
- calculate small square roots of perfect squares and cube roots of small perfect cubes (know that radical 2 is irrational) (CCGPS) (8MA\_B2012-4/MCC8.EE.2)
- express and use numbers in scientific notation to estimate very large or very small numbers (CCGPS) (8MA\_B2012-5/MCC8.EE.3)
- compare numbers in scientific notation and determine how many times greater one value is than the other (CCGPS) (8MA\_B2012-6/MCC8.EE.3)
- perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used (CCGPS) (8MA\_B2012-7/MCC8.EE.4)
- interpret and use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (CCGPS) (8MA\_B2012-8/MCC8.EE.4)
- graph proportional relationships, interpreting the unit rate as the slope of the graph (CCGPS) (8MA\_B2012-9/MCC8.EE.5)
- compare two different proportional relationships represented as verbal, tabular, graphic, and algebraic representations of functions (CCGPS) (8MA\_B2012-10/MCC8.EE.5)
- determine the meaning of slope by using similar right triangles to explain why the slope  $m$  is the same between any two distinct points on a non-vertical line in the coordinate plane (CCGPS) (8MA\_B2012-11/MCC8.EE.6)
- derive and graph linear equations in slope intercept form  $y = mx + b$  (CCGPS) (8MA\_B2012-12/MCC8.EE.6)
- solve linear equations both algebraically and graphically, including examples of linear equations in one variable with one solution, infinitely many solutions or no solutions [e.g., equivalent equation of the form  $x = a$ ,  $a = a$ , or  $a = b$  results (where  $a$  and  $b$  are different numbers)] (CCGPS) (8MA\_B2012-13/MCC8.EE.7/MCC8.EE.7\_a)
- solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and combining like terms (CCGPS) (8MA\_B2012-14/MCC8.EE.7\_b)
- solve systems of equations algebraically and estimate solutions by graphing the equations (CCGPS) (8MA\_B2012-15/MCC8.EE.8)
- correspond points of intersection of graphs to solutions to a system of two linear equations in two variables because points of intersection satisfy both equations simultaneously (CCGPS) (8MA\_B2012-16/MCC8.EE.8\_a)

**B - Expressions and Equations (*continued*)**

- solve systems of two linear equations in two variables algebraically and estimate solutions by graphing the equations; solve simple cases by inspection (CCGPS) (8MA\_B2012-17/MCC8.EE.8\_b)
- solve real-world mathematical problems leading to two linear equations in two variables (CCGPS) (8MA\_B2012-18/MCC8.EE.8\_c)

**C - Functions**

- describe and identify a function as a correspondence between inputs and outputs where each input has exactly one output (CCGPS) (8MA\_C2012-19/MCC8.F.1)
- describe functions in a variety of representations, including the graph of a function that is the set of ordered pairs consisting of an input and the corresponding output (CCGPS) (8MA\_C2012-20/MCC8.F.1)
- compare properties of two functions each represented among verbal, tabular, graphic and algebraic representations of functions (CCGPS) (8MA\_C2012-21/MCC8.F.2)
- 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 (CCGPS) (8MA\_C2012-22/MCC8.F.3)
- determine the equation of a line by constructing a function to model a relationship between two quantities (CCGPS) (8MA\_C2012-23/MCC8.F.4)
- determine and 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 (CCGPS) (8MA\_C2012-24/MCC8.F.4)
- create a graph that exhibits the qualitative features of the function that has been described verbally (e.g., where the function is increasing or decreasing, linear or nonlinear) (CCGPS) (8MA\_C2012-25/MCC8.F.5)
- compare and contrast qualitatively between relations that are functions and by analyzing a graph (CCGPS) (8MA\_C2012-26/MCC8.F.5)
- simplify, add, subtract, multiply, and divide radical expressions to include rationalizing denominators (8MA\_C2012-27)

**D - Geometry**

- model and verify the properties of basic translations, dilations, rotations, reflections, and relate symmetry to appropriate transformations (lines are taken to lines, and line segments to line segments of the same length; angles are taken to angles of the same measure; parallel lines are taken to parallel lines) (CCGPS) (8MA\_D2012-28/MCC8.G.1)
- recognize a two-dimensional figure as congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations (CCGPS) (8MA\_D2012-29/MCC8.G.2)
- describe a sequence of transformations, that when given, proves congruences between two figures (CCGPS) (8MA\_D2012-30/MCC8.G.2)
- determine the coordinates resulting from translations, dilations, rotations or reflections when given a figure in the coordinate plane (CCGPS) (8MA\_D2012-31/MCC8.G.3)
- recognize that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations and dilations (CCGPS) (8MA\_D2012-32/MCC8.G.4)
- describe a sequence of transformations, that when given, proves similarity between two figures (CCGPS) (8MA\_D2012-33/MCC8.G.4)
- apply properties of angle pairs formed by parallel lines cut by a transversal (CCGPS) (8MA\_D2012-34/MCC8.G.5)
- analyze and establish facts about the angle sum and exterior angle of triangles, and the angle-angle criterion for similarity of triangles (CCGPS) (8MA\_D2012-35/MCC8.G.5)
- recognize and interpret the Pythagorean theorem, and its converse, as a statement about the areas of squares on the sides of a right triangle (CCGPS) (8MA\_D2012-36/MCC8.G.6)
- apply properties of right triangles, including the Pythagorean theorem, in real-world and mathematical problems within two- and three-dimensional figures (CCGPS) (8MA\_D2012-37/MCC8.G.7)
- explain and apply the distance formula as an application of the Pythagorean theorem (CCGPS) (8MA\_D2012-38/MCC8.G.8)
- solve real-world and mathematical problems involving the volume of cylinders, cones and spheres (CCGPS) (8MA\_D2012-39/MCC8.G.9)

## 8th Grade

### **E - Statistics and Probability**

- gather data that can be modeled with a linear function to investigate patterns of association between two quantities (CCGPS) (8MA\_E2012-40/MCC8.SP.1)
- construct and interpret scatter plots for bivariate measurements (CCGPS) (8MA\_E2012-41/MCC8.SP.1)
- describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association (CCGPS) (8MA\_E2012-42/MCC8.SP.1)
- estimate and determine the line of best fit from a scatter plot and informally assess the accuracy of the model by judging the closeness of the data points to the line (CCGPS) (8MA\_E2012-43/MCC8.SP.2)
- apply the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting slope and intercept (CCGPS) (8MA\_E2012-44/MCC8.SP.3)
- recognize that patterns of association can be seen in bivariate categorical data by displaying frequencies and relative frequencies in a table (CCGPS) (8MA\_E2012-45/MCC8.SP.4)
- construct and interpret a table summarizing data on two categorical variables collected from the same subjects (CCGPS) (8MA\_E2012-46/MCC8.SP.4)
- use relative frequencies calculated for rows or columns to describe possible association between the two variables (CCGPS) (8MA\_E2012-47/MCC8.SP.4)

### **TB - Expressions and Equations**

- 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 (CCGPS) (8MA\_TB2012-48/MCC7.EE.4)
- solve word problems leading to inequalities of the form  $px + q > r$  or  $px + q < r$ , where  $p$ ,  $q$ ,  $r$  are specific rational numbers; graph the solution set of the inequality and interpret it in the context of the problem (CCGPS) (8MA\_TB2012-49/MCC7.EE.4\_b)

### **TD - Geometry**

- write and solve equations for an unknown angle in a figure using facts about supplementary, complementary, vertical, and adjacent angles (CCGPS) (8MA\_TD2012-50/MCC7.G.5)

### **TE - Statistics and Probability**

- conduct trials/simulations and analyze the relationship between experimental and theoretical probability (CCGPS) (8MA\_TE2012-51/MCC7.SP.7)
- compare probabilities from a model to observed frequencies and explain possible sources of discrepancy, if present (CCGPS) (8MA\_TE2012-52/MCC7.SP.7)
- develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events (CCGPS) (8MA\_TE2012-53/MCC7.SP.7\_a)
- develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process (CCGPS) (8MA\_TE2012-54/MCC7.SP.7\_b)
- determine the probability of compound simple events (CCGPS) (8MA\_TE2012-55/MCC7.SP.8)
- explain that a compound event is the fraction of outcomes in the sample space for which the compound event occurs (CCGPS) (8MA\_TE2012-56/MCC7.SP.8\_a)
- represent sample spaces using tree diagrams, lists, simulations, and tables to identify the outcomes in the sample space which compose the event; for an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event (CCGPS) (8MA\_TE2012-57/MCC7.SP.8\_b)
- design and use simulation to generate frequencies for compound events (CCGPS) (8MA\_TE2012-58/MCC7.SP.8\_c)

## 8th Grade Algebra I

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### A - The Number System

- distinguish between rational and irrational numbers, such that rational numbers are those with decimal expansions that terminate in zeros or eventually repeat, and that all other numbers are called irrational (CCGPS) (8MA1\_A2012-1/MCC8.NS.1)
- recognize square roots as points and as lengths on a number line in order to compare the size of irrational numbers (CCGPS) (8MA1\_A2012-2/MCC8.NS.2)

### B - Expressions and Equations

- apply and know the properties of integer exponents to generate equivalent numerical expressions (CCGPS) (8MA1\_B2012-3/MCC8.EE.1)
- calculate small square roots of perfect squares and cube roots of small perfect cubes (know that radical 2 is irrational) (CCGPS) (8MA1\_B2012-4/MCC8.EE.2)
- express and use numbers in scientific notation to estimate very large or very small numbers (CCGPS) (8MA1\_B2012-5/MCC8.EE.3)
- compare numbers in scientific notation and determine how many times greater one value is than the other (CCGPS) (8MA1\_B2012-6/MCC8.EE.3)
- perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used (CCGPS) (8MA1\_B2012-7/MCC8.EE.4)
- interpret and use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (CCGPS) (8MA1\_B2012-8/MCC8.EE.4)
- graph proportional relationships, interpreting the unit rate as the slope of the graph (CCGPS) (8MA1\_B2012-9/MCC8.EE.5)
- compare two different proportional relationships represented as verbal, tabular, graphic, and algebraic representations of functions (CCGPS) (8MA1\_B2012-10/MCC8.EE.5)
- determine the meaning of slope by using similar right triangles to explain why the slope  $m$  is the same between any two distinct points on a non-vertical line in the coordinate plane (CCGPS) (8MA1\_B2012-11/MCC8.EE.6)
- derive and graph linear equations in slope intercept form  $y = mx + b$  (CCGPS) (8MA1\_B2012-12/MCC8.EE.6)
- solve linear equations both algebraically and graphically, including examples of linear equations in one variable with one solution, infinitely many solutions or no solutions [(e.g., equivalent equation of the form  $x = a$ ,  $a = a$ , or  $a = b$  results (where  $a$  and  $b$  are different numbers)] (CCGPS) (8MA1\_B2012-13/MCC8.EE.7/MCC8.EE.7\_a)
- solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and combining like terms (CCGPS) (8MA1\_B2012-14/MCC8.EE.7\_b)
- solve systems of equations algebraically and estimate solutions by graphing the equations (CCGPS) (8MA1\_B2012-15/MCC8.EE.8)
- correspond points of intersection of graphs to solutions to a system of two linear equations in two variables because points of intersection satisfy both equations simultaneously (CCGPS) (8MA1\_B2012-16/MCC8.EE.8\_a)
- solve systems of two linear equations in two variables algebraically and estimate solutions by graphing the equations; solve simple cases by inspection (CCGPS) (8MA1\_B2012-17/MCC8.EE.8\_b)
- solve real-world mathematical problems leading to two linear equations in two variables (CCGPS) (8MA1\_B2012-18/MCC8.EE.8\_c)
- rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations (Limit to formulas with a linear focus) (CCGPS) (8MA1\_B2012-19/MCC9-12.CED.4)

### C - Functions

- describe and identify a function as a correspondence between inputs and outputs where each input has exactly one output (CCGPS) (8MA1\_C2012-20/MCC8.F.1)
- describe functions in a variety of representations, including the graph of a function that is the set of ordered pairs consisting of an input and the corresponding output (CCGPS) (8MA1\_C2012-21/MCC8.F.1)

## 8th Grade

### **C – Functions (*continued*)**

- compare properties of two functions each represented among verbal, tabular, graphic, and algebraic representations of functions (CCGPS) (8MA1\_C2012-22/MCC8.F.2)
- 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 (CCGPS) (8MA1\_C2012-23/MCC8.F.3)
- determine the equation of a line by constructing a function to model a relationship between two quantities (CCGPS) (8MA1\_C2012-24/MCC8.F.4)
- determine and 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 (CCGPS) (8MA1\_C2012-25/MCC8.F.4)
- create a graph that exhibits the qualitative features of the function that has been described verbally (e.g., where the function is increasing or decreasing, linear or nonlinear) (CCGPS) (8MA1\_C2012-26/MCC8.F.5)
- compare and contrast qualitatively between relations that are functions and by analyzing a graph (CCGPS) (8MA1\_C2012-27/MCC8.F.5)
- simplify, add, subtract, multiply, and divide radical expressions to include rationalizing denominators (CCGPS) (8MA1\_C2012-28)
- 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 [(e.g., 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  $y = f(x)$ . (Draw examples from linear and exponential functions.)] (CCGPS) (8MA1\_C2012-29/MCC9-12.IF.1)
- evaluate functions for inputs in their domains using function notation and interpret statements that use function notation in terms of a context (Draw examples from linear and exponential functions) (CCGPS) (8MA1\_C2012-30/MCC9-12.IF.2)
- 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 (Focus on linear functions and intervals for exponential functions whose domain is a subset of the integers) (CCGPS) (8MA1\_C2012-31/MCC9-12.IF.6)
- 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; focus on vertical translations of graphs of linear and exponential functions; relate the vertical translation of a linear function to its  $y$ -intercept) (CCGPS) (8MA1\_C2012-32/MCC9-12.BF.3)

### **D - Geometry**

- model and verify the properties of basic translations, dilations, rotations, reflections, and relate symmetry to appropriate transformations (lines are taken to lines, and line segments to line segments of the same length; angles are taken to angles of the same measure; parallel lines are taken to parallel lines) (CCGPS) (8MA1\_D2012-33/MCC8.G.1)
- recognize a two-dimensional figure as congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations (CCGPS) (8MA1\_D2012-34/MCC8.G.2)
- describe a sequence of transformations, that when given, proves congruences between two figures (CCGPS) (8MA1\_D2012-35/MCC8.G.2)
- determine the coordinates resulting from translations, dilations, rotations or reflections when given a figure in the coordinate plane (CCGPS) (8MA1\_D2012-36/MCC8.G.3)
- compute perimeters of polygons and areas of triangles and rectangles using coordinates including the use of the distance formula (CCGPS) (8MA1\_D2012-37/MCC9-12.GPE.7)
- recognize that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations and dilations (CCGPS) (8MA1\_D2012-38/MCC8.G.4)
- describe a sequence of transformations, that when given, proves similarity between two figures (CCGPS) (8MA1\_D2012-39/MCC8.G.4)
- apply properties of angle pairs formed by parallel lines cut by a transversal (CCGPS) (8MA1\_D2012-40/MCC8.G.5)
- analyze and establish facts about the angle sum and exterior angle of triangles, and the angle-angle criterion for similarity of triangles (CCGPS) (8MA1\_D2012-41/MCC8.G.5)

**D – Geometry (*continued*)**

- recognize and interpret the Pythagorean theorem, and its converse, as a statement about the areas of squares on the sides of a right triangle (CCGPS) (8MA1\_D2012-42/MCC8.G.6)
- apply properties of right triangles, including the Pythagorean theorem, in real-world and mathematical problems within two- and three-dimensional figures (CCGPS) (8MA1\_D2012-43/MCC8.G.7)
- explain and apply the distance formula as an application of the Pythagorean theorem (CCGPS) (8MA1\_D2012-44/MCC8.G.8)
- solve real-world and mathematical problems involving the volume of cylinders, cones and spheres (CCGPS) (8MA1\_D2012-45/MCC8.G.9)

**E - Statistics and Probability**

- gather data that can be modeled with a linear function to investigate patterns of association between two quantities (CCGPS) (8MA1\_E2012-46/MCC8.SP.1)
- construct and interpret scatter plots for bivariate measurements (CCGPS) (8MA1\_E2012-47/MCC8.SP.1)
- describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association (CCGPS) (8MA1\_E2012-48/MCC8.SP.1)
- estimate and determine the line of best fit from a scatter plot and informally assess the accuracy of the model by judging the closeness of the data points to the line (CCGPS) (8MA1\_E2012-49/MCC8.SP.2)
- apply the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting slope and intercept (CCGPS) (8MA1\_E2012-50/MCC8.SP.3)
- recognize that patterns of association can be seen in bivariate categorical data by displaying frequencies and relative frequencies in a table (CCGPS) (8MA1\_E2012-51/MCC8.SP.4)
- construct and interpret a table summarizing data on two categorical variables collected from the same subjects (CCGPS) (8MA1\_E2012-52/MCC8.SP.4)
- describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association (CCGPS) (8MA1\_E2012-53/MCC8.SP.1)
- estimate and determine the line of best fit from a scatter plot and informally assess the accuracy of the model by judging the closeness of the data points to the line (CCGPS) (8MA1\_E2012-54/MCC8.SP.2)
- apply the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting slope and intercept (CCGPS) (8MA1\_E2012-55/MCC8.SP.3)
- recognize that patterns of association can be seen in bivariate categorical data by displaying frequencies and relative frequencies in a table (CCGPS) (8MA1\_E2012-56/MCC8.SP.4)
- construct and interpret a table summarizing data on two categorical variables collected from the same subjects (CCGPS) (8MA1\_E2012-57/MCC8.SP.4)
- use relative frequencies calculated for rows or columns to describe possible association between the two variables (CCGPS) (8MA1\_E2012-58/MCC8.SP.4)

**TB - Expressions and Equations**

- 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 (CCGPS) (8MA1\_TB2012-59/MCC7.EE.4)
- solve word problems leading to inequalities of the form  $px + q > r$  or  $px + q < r$ , where  $p$ ,  $q$ ,  $r$  are specific rational numbers; graph the solution set of the inequality and interpret it in the context of the problem (CCGPS) (8MA1\_TB2012-60/MCC7.EE.4\_b)

**TD - Geometry**

- write and solve equations for an unknown angle in a figure using facts about supplementary, complementary, vertical, and adjacent angles (CCGPS) (8MA1\_TD2012-61/MCC7.G.5)

## 8th Grade

### **TE - Statistics and Probability**

- conduct trials/simulations and analyze the relationship between experimental and theoretical probability (CCGPS) (8MA1\_TE2012-62/MCC7.SP.7)
- compare probabilities from a model to observed frequencies and explain possible sources of discrepancy, if present (CCGPS) (8MA1\_TE2012-63/MCC7.SP.7)
- develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events (CCGPS) (8MA1\_TE2012-64/MCC7.SP.7\_a)
- develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process (CCGPS) (8MA1\_TE2012-65/MCC7.SP.7\_b)
- determine the probability of compound simple events (CCGPS) (8MA1\_TE2012-66/MCC7.SP.8)
- explain that a compound event is the fraction of outcomes in the sample space for which the compound event occurs (CCGPS) (8MA1\_TE2012-67/MCC7.SP.8\_a)
- represent sample spaces using tree diagrams, lists, simulations, and tables to identify the outcomes in the sample space which compose the event; for an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event (CCGPS) (8MA1\_TE2012-68/MCC7.SP.8\_b)
- design and use simulation to generate frequencies for compound events (CCGPS) (8MA1\_TE2012-69/MCC7.SP.8\_c)

## **Science**

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### **A - Characteristics of Science**

- discuss the importance of curiosity, honesty, openness, and skepticism in science and exhibit these traits in efforts to understand how the world works (GPS) (8SC\_A2007-1)
- identify questions and problems that can be answered and solved through scientific inquiry (GPS) (8SC\_A2007-2)
- design and conduct investigations using the scientific method (GPS) (8SC\_A2007-3)
- apply standard safety practices for all classroom laboratory and field investigations (GPS) (8SC\_A2007-4)
- use appropriate scientific tools, techniques, and technologies to gather, analyze, and interpret data (GPS) (8SC\_A2007-5)
- apply computation and estimation skills necessary for analyzing data and developing conclusions (GPS) (8SC\_A2007-6)
- think critically and logically about relationships between evidence and explanations (GPS) (8SC\_A2007-7)
- communicate scientific ideas clearly (GPS) (8SC\_A2007-8)
- read scientific materials to establish context for subject matter, develop vocabulary, and to be aware of current research (GPS) (8SC\_A2007-9)
- analyze the importance of understanding systems, models, and scales when exploring scientific and technological matters (GPS) (8SC\_A2007-10)

### **B - Matter**

- examine the scientific view of the nature of matter (GPS) (8SC\_B2007-11)
- investigate the arrangement of the Periodic Table (GPS) (8SC\_B2007-12)

### **C - Energy**

- examine various forms and transformations of energy (GPS) (8SC\_C2007-13)

### **D - Force and Motion**

- investigate the relationship between force, mass, and the motion of objects (GPS) (8SC\_D2007-14)
- examine the mechanisms of simple machines and the effect they have on work (GPS) (8SC\_D2007-15)

**E - Gravity**

- examine the factors that determine gravity and the effects that gravity has on all matter in the universe (GPS) (8SC\_E2007-16)

**F - Waves**

- investigate the properties of waves (GPS) (8SC\_F2007-17)
- examine and explain how the behavior of light waves is manipulated causing reflection, refraction, diffraction, and absorption (GPS) (8SC\_F2007-18)
- explore the wave nature of sound (GPS) (8SC\_F2007-19)

**G - Electricity and Magnetism**

- investigate the characteristics and interactions of electricity and magnetism that classify them as major forces acting in nature (GPS) (8SC\_G2007-20)
- analyze the properties of magnets and magnetic fields (GPS) (8SC\_G2007-21)

## Social Studies

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**A - Map and Globe Skills**

- use cardinal directions (GPS) (8SS\_A2007-1)
- use intermediate directions (GPS) (8SS\_A2007-2)
- use a letter/number grid system to determine location (GPS) (8SS\_A2007-3)
- compare and contrast the categories of natural, cultural, and political features found on maps (GPS) (8SS\_A2007-4)
- use customary and metric map scales to determine distance on a map (GPS) (8SS\_A2007-5)
- use map key/legend to acquire information from historical, physical, political, resource, product, and economic maps (GPS) (8SS\_A2007-6)
- use a map to explain impact of geography on historical and current events (GPS) (8SS\_A2007-7)
- draw conclusions and make generalizations based on information from maps (GPS) (8SS\_A2007-8)
- use latitude and longitude to determine location (GPS) (8SS\_A2007-9)
- use graphic scales to determine distances on a map (GPS) (8SS\_A2007-10)
- compare maps of the same place at different points in time and from different perspectives to determine changes, identify trends, and generalize about human activities (GPS) (8SS\_A2007-11)
- compare maps with data sets (charts, tables, graphs) and/or readings to draw conclusions and make generalizations (GPS) (8SS\_A2007-12)

**B - Information Processing Skills**

- compare similarities and differences (GPS) (8SS\_B2007-13)
- organize items chronologically (GPS) (8SS\_B2007-14)
- identify issues and/or problems and alternative solutions (GPS) (8SS\_B2007-15)
- distinguish between fact and opinion (GPS) (8SS\_B2007-16)
- identify main idea, detail, sequence of events, and cause and effect in a social studies context (GPS) (8SS\_B2007-17)
- identify and use primary and secondary sources (GPS) (8SS\_B2007-18)
- interpret timelines (GPS) (8SS\_B2007-19)
- identify social studies reference resources to use for a specific purpose (GPS) (8SS\_B2007-20)
- construct charts and tables (GPS) (8SS\_B2007-21)
- analyze artifacts (GPS) (8SS\_B2007-22)
- draw conclusions and make generalizations (GPS) (8SS\_B2007-23)
- analyze graphs and diagrams (GPS) (8SS\_B2007-24)
- translate dates into centuries, eras, or ages (GPS) (8SS\_B2007-25)

## 8th Grade

### **B - Information Processing Skills (*continued*)**

- formulate appropriate research questions (GPS) (8SS\_B2007-26)
- determine adequacy and/or relevancy of information (GPS) (8SS\_B2007-27)
- check for consistency of information (GPS) (8SS\_B2007-28)
- interpret political cartoons (GPS) (8SS\_B2007-29)

### **C - Geographic Understanding**

- describe Georgia with regard to physical features and location (GPS) (8SS\_C2007-30)
- explain how the interstate highway system, Hartsfield-Jackson International Airport, Georgia's deepwater ports, and the railroads help drive the state's economy (GPS) (8SS\_C2007-31)

### **D - Native American Cultures and Exploration**

- evaluate the development of Native American cultures and the impact of European exploration and settlement on the Native American cultures in Georgia (GPS) (8SS\_D2007-32)
- analyze the colonial period of Georgia's history (GPS) (8SS\_D2007-33)
- analyze the role of Georgia in the American Revolution (GPS) (8SS\_D2007-34)
- describe the impact of events that led to the ratification of the United States Constitution and the Bill of Rights (GPS) (8SS\_D2007-35)

### **E - Georgia's Growth and Expansion**

- explain significant factors that affected the development of Georgia as part of the growth of the United States between 1789 and 1840 (GPS) (8SS\_E2007-36)

### **F - Antebellum, Civil War and Reconstruction**

- analyze the impact of the Civil War and Reconstruction on Georgia (GPS) (8SS\_F2007-37)

### **G - New South**

- evaluate key political, social, and economic changes which occurred in Georgia between 1877 and 1918 (GPS) (8SS\_G2007-38)
- analyze the important events of World War I, the Twenties, and the Great Depression and their impact on Georgia (GPS) (8SS\_G2007-39)

### **H - World War II**

- describe the impact of World War II on Georgia's development economically, socially, and politically (GPS) (8SS\_H2007-40)

### **I - Post World War II**

- evaluate key post-World War II developments of Georgia from 1945 to 1970 (GPS) (8SS\_I2007-41)

### **J - Civil Rights Movement**

- evaluate the role of Georgia in the modern civil rights movement (GPS) (8SS\_J2007-42)

### **K - Modern Georgia**

- explain the importance of significant social, economic, and political developments in Georgia since 1970 (GPS) (8SS\_K2007-43)

### **L - Civic Understandings**

- describe the role of citizen's under Georgia's Constitution (GPS) (8SS\_L2007-44)
- analyze the role of the legislative branch in Georgia state government (GPS) (8SS\_L2007-45)
- analyze the role of the executive branch in Georgia state government (GPS) (8SS\_L2007-46)
- analyze the role of the judicial branch in Georgia state government (GPS) (8SS\_L2007-47)
- analyze the role of local governments in the state of Georgia (GPS) (8SS\_L2007-48)

**M - Economic Understanding**

- give examples of the kinds of goods and services produced in Georgia in different historical periods (GPS) (8SS\_M2007-49)
- explain the benefits of free trade (GPS) (8SS\_M2007-50)
- evaluate the influence of Georgia's economic growth and development (GPS) (8SS\_M2007-51)
- identify revenue sources and services provided by state and local governments (GPS) (8SS\_M2007-52)
- explain personal money management choices to include income, spending, credit, saving, and investing (GPS) (8SS\_M2007-53)

## Advanced Band

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**A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (8BA\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (8BA\_A2011-2)
- read and notate music (GPS) (8BA\_A2011-3)

**B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (8BA\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (8BA\_B2011-5)

**C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (8BA\_C2011-6)
- evaluate music and music performances (GPS) (8BA\_C2011-7)

**D - Cultural and Historical Context**

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (8BA\_D2011-8)
- connect the relationship of music to history and culture (GPS) (8BA\_D2011-9)

## Business and Computer Science

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**A - Keyboarding Skills**

- build and expand proficiency in keyboarding (GPS) (8CS\_A2009-1)

**B - 21st Century Skills**

- use various computer applications to demonstrate effective communication skills in the business world (GPS) (8CS\_B2009-2)
- demonstrate the ability to problem solve by working through a process (GPS) (8CS\_B2009-3)
- exhibit critical thinking to make informed, cohesive judgments (GPS) (8CS\_B2009-4)

**C - Business Foundations**

- examine basics of accounting and personal finance utilizing a spreadsheet (GPS) (8CS\_C2009-5)
- examine the basics of entrepreneurship while utilizing a variety of software applications and multimedia tools (GPS) (8CS\_C2009-6)

**D - Information Systems**

- investigate types of networking and Internet access (GPS) (8CS\_D2009-7)

## 8th Grade

### **E - Internet and Safety**

- differentiate between civil and criminal law as related to Internet safety and computer crimes (GPS) (8CS\_E2009-8)

### **F - Marketing**

- examine the basics of marketing using web and desktop publishing applications (GPS) (8CS\_F2009-9)
- utilize multimedia software to create, edit, and manipulate a multimedia presentation (GPS) (8CS\_F2009-10)
- utilize software related to web page design to plan, design, and create a web page (GPS) (8CS\_F2009-11)

### **G - Careers**

- use technology to investigate 21st century computer-related career opportunities (GPS) (8CS\_G2009-12)

### **H - Financial Literacy**

- demonstrate an understanding of economics using different types of software applications (GPS) (8CS\_H2009-13)

### **I - Literacy Standards**

- cite specific textual evidence to support analysis of technical texts (CCGPS) (8CS\_I2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (8CS\_I2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (8CS\_I2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (8CS\_I2012-4)
- 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 (CCGPS) (8CS\_I2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (8CS\_I2012-6)
- 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) (CCGPS) (8CS\_I2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (8CS\_I2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (8CS\_I2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (8CS\_I2012-10)
- write arguments focused on discipline-specific content (CCGPS) (8CS\_I2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (8CS\_I2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (8CS\_I2012-13)
- 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 (CCGPS) (8CS\_I2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (8CS\_I2012-15)
- 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 (CCGPS) (8CS\_I2012-16)
- 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 (CCGPS) (8CS\_I2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (8CS\_I2012-18)

**I - Literacy Standards (*continued*)**

- 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 (CCGPS) (8CS\_I2012-19)

## Career Connections

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**A - Interpersonal Skills**

- develop and demonstrate positive interpersonal skills (GPS) (8CC\_A2011-1)

**B - Management Skills**

- apply management skills to everyday lives (GPS) (8CC\_B2011-2)

**C - Employability Skills**

- set employability and educational goals (GPS) (8CC\_C2011-3)

**D - Literacy Standards**

- cite specific textual evidence to support analysis of technical texts (CCGPS) (8CC\_D2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (8CC\_D2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (8CC\_D2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (8CC\_D2012-4)
- 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 (CCGPS) (8CC\_D2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (8CC\_D2012-6)
- 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) (CCGPS) (8CC\_D2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (8CC\_D2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (8CC\_D2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (8CC\_D2012-10)
- write arguments focused on discipline-specific content (CCGPS) (8CC\_D2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (8CC\_D2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (8CC\_D2012-13)
- 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 (CCGPS) (8CC\_D2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (8CC\_D2012-15)
- 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 (CCGPS) (8CC\_D2012-16)

### **D - Literacy Standards**

- 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 (CCGPS) (8CC\_D2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (8CC\_D2012-18)
- 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 (CCGPS) (8CC\_D2012-19)

## **Advanced Chorus**

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### **A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (8CH\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (8CH\_A2011-2)
- read and notate music (GPS) (8CH\_A2011-3)

### **B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (8CH\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (8CH\_B2011-5)

### **C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (8CH\_C2011-6)
- evaluate music and music performances (GPS) (8CH\_C2011-7)

### **D - Cultural and Historical Context**

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (8CH\_D2011-8)
- understand music in relation to history and culture (GPS) (8CH\_D2011-9)

## **Communications**

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### **A - History of Mass Media**

- identify early mass communication inventions (GPS) (8CO\_A2011-1)
- identify key developments and individuals relating to the history of the graphics and design industry (GPS) (8CO\_A2011-2)

### **B - Trade Terminology**

- utilize and understand trade terminology in an appropriate manner (GPS) (8CO\_B2011-3)

### **C - Safety**

- identify safety and health procedures utilized in the classroom/lab environment (GPS) (8CO\_C2011-4)

### **D - Careers and Ethics**

- explore and demonstrate ethical use of equipment and storyboarding (GPS) (8CO\_D2011-5)
- demonstrate interpersonal and employability skills required for job retention in the work place (GPS) (8CO\_D2011-6)
- explore careers available in the field of graphic communications and design (GPS) (8CO\_D2011-7)
- examine professional and ethical issues involved in the graphic communications industry (GPS) (8CO\_D2011-8)

**E - Video Broadcast Production**

- demonstrate the pre-production planning process (GPS) (8CO\_E2011-9)
- exhibit appropriate production performance techniques (GPS) (8CO\_E2011-10)
- identify editing methods in post-production (GPS) (8CO\_E2011-11)

**F - Literacy Standards**

- cite specific textual evidence to support analysis of technical texts (CCGPS) (8CO\_F2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (8CO\_F2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (8CO\_F2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (8CO\_F2012-4)
- 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 (CCGPS) (8CO\_F2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (8CO\_F2012-6)
- 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) (CCGPS) (8CO\_F2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (8CO\_F2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (8CO\_F2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (8CO\_F2012-10)
- write arguments focused on discipline-specific content (CCGPS) (8CO\_F2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (8CO\_F2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (8CO\_F2012-13)
- 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 (CCGPS) (8CO\_F2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (8CO\_F2012-15)
- 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 (CCGPS) (8CO\_F2012-16)
- 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 (CCGPS) (8CO\_F2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (8CO\_F2012-18)
- 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 (CCGPS) (8CO\_F2012-19)

## Engineering and Technology

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### A - Academic Knowledge

- develop an understanding of the Universal Systems Model (GPS) (8ET\_A2009-1)
- develop an understanding of how the design process is used to develop a technological system (GPS) (8ET\_A2009-2)
- recognize relationships among technologies and assess the impact of integrated systems (GPS) (8ET\_A2009-3)
- develop an understanding of how humans interact with systems (GPS) (8ET\_A2009-4)
- develop leadership skills and work ethics (GPS) (8ET\_A2009-5)
- examine and research careers in fields related to engineering and technology (GPS) (8ET\_A2009-6)

### B - Literacy Standards

- cite specific textual evidence to support analysis of technical texts (CCGPS) (8ET\_B2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (8ET\_B2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (8ET\_B2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (8ET\_B2012-4)
- 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 (CCGPS) (8ET\_B2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (8ET\_B2012-6)
- 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) (CCGPS) (8ET\_B2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (8ET\_B2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (8ET\_B2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (8ET\_B2012-10)
- write arguments focused on discipline-specific content (CCGPS) (8ET\_B2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (8ET\_B2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (8ET\_B2012-13)
- 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 (CCGPS) (8ET\_B2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (8ET\_B2012-15)
- 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 (CCGPS) (8ET\_B2012-16)
- 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 (CCGPS) (8ET\_B2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (8ET\_B2012-18)
- 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 (CCGPS) (8ET\_B2012-19)

## Family and Consumer Science

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### A - Careers

- research careers in the areas of culinary arts, consumer services, early childhood education, nutrition and food science, interior and fashion design, education, and leadership (GPS) (8FC\_A2011-1)

### B - Safety

- utilize standard safety practices for all classroom laboratory and field investigations (GPS) (8FC\_B2011-2)

### C - Foods and Nutrition

- apply principles of food science, food technology (GPS) (8FC\_C2011-3)
- apply food preparation skills through a variety of activities (GPS) (8FC\_C2011-4)
- identify and demonstrate acceptable behaviors for table service and meal-time behaviors (GPS) (8FC\_C2011-5)

### D - Child Development

- demonstrate the integration of knowledge, skills, and practices of the caregiver-educator roles (GPS) (8FC\_D2011-6)

### E - Personal Finance

- apply social and financial skills needed to develop personal independence and interpersonal relationships (GPS) (8FC\_E2011-7)
- demonstrate financial literacy and money management strategies in the area of budgeting (GPS) (8FC\_E2011-8)

### F - Housing

- analyze factors affecting housing and interior design decisions for individuals and families (GPS) (8FC\_F2011-9)

### G - Interiors

- investigate factors affecting textile and apparel decisions for individuals and families (GPS) (8FC\_G2011-10)

### H - Leadership

- demonstrate teamwork, leadership skills, and knowledge to become leaders in the family, workplace, and community (GPS) (8FC\_H2011-11)

### I - Literacy Standards

- cite specific textual evidence to support analysis of technical texts (CCGPS) (8FC\_I2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (8FC\_I2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (8FC\_I2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (8FC\_I2012-4)
- 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 (CCGPS) (8FC\_I2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (8FC\_I2012-6)
- 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) (CCGPS) (8FC\_I2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (8FC\_I2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (8FC\_I2012-9)

## 8th Grade

### **I - Literacy Standards (*continued*)**

- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (8FC\_I2012-10)
- write arguments focused on discipline-specific content (CCGPS) (8FC\_I2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (8FC\_I2012-12)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (8FC\_I2012-13)
- 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 (CCGPS) (8FC\_I2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (8FC\_I2012-15)
- 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 (CCGPS) (8FC\_I2012-16)
- 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 (CCGPS) (8FC\_I2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (8FC\_I2012-18)
- 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 (CCGPS) (8FC\_I2012-19)

## **General Music**

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### **A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (8GM\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (8GM\_A2011-2)
- read and notate music (GPS) (8GM\_A2011-3)

### **B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (8GM\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (8GM\_B2011-5)

### **C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (8GM\_C2011-6)
- evaluate music and music performances (GPS) (8GM\_C2011-7)

### **D - Cultural and Historical Context**

- compare relationships between music, the other arts, and disciplines outside the arts (GPS) (8GM\_D2011-8)
- investigate music in relation to history and culture (GPS) (8GM\_D2011-9)

## **Advanced Guitar**

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### **A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (8GU\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (8GU\_A2011-2)
- read and notate music (GPS) (8GU\_A2011-3)

**B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (8GU\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (8GU\_B2011-5)

**C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (8GU\_C2011-6)
- evaluate music and music performances (GPS) (8GU\_C2011-7)

**D - Cultural and Historical Context**

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (8GU\_D2011-8)
- understand music in relation to history and culture (GPS) (8GU\_D2011-9)

## Health

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**A - First Aid**

- demonstrate proper first aid procedures for a variety of emergency situations (GPS) (8HE\_A2009-1)

**B - Safety**

- identify threats to personal safety and appropriate coping skills (GPS) (8HE\_B2009-2)

**C - Personal Care**

- examine the advantages, disadvantages, risks, and consequences of lifestyle choices and/or health behaviors (GPS) (8HE\_C2009-3)

**D - Disease Prevention**

- explain causes, symptoms, prevention strategies, treatment, and control of non-communicable and communicable diseases (GPS) (8HE\_D2009-4)

**E - Tobacco, Alcohol, and Other Drugs**

- assess the consequences of tobacco, alcohol, and other drug use on the fetus and developing child (GPS) (8HE\_E2009-5)
- recognize signs and symptoms of chemical dependency and identify appropriate sources for help and support (GPS) (8HE\_E2009-6)
- describe the problems associated with the use of alcohol and other drugs on teen relationships (GPS) (8HE\_E2009-7)
- practice refusal skills for countering aggressive behavior and pressure to use tobacco products, alcohol, and other drugs (GPS) (8HE\_E2009-8)
- propose alternatives to using alcohol, tobacco products, and other drugs (GPS) (8HE\_E2009-9)

**F - Nutrition**

- assess personal diet using recommended adolescent dietary guidelines and recommend improvements (GPS) (8HE\_F2009-10)

**G - Emotional Expression/Mental Health**

- analyze possible causes of conflict among youth and strategies to deal with them (GPS) (8HE\_G2009-11)
- assess personal characteristics and conditions associated with positive self-image (GPS) (8HE\_G2009-12)

**H - Family Life**

- identify social, emotional, intellectual, and economic aspects of dating (GPS) (8HE\_H2009-13)
- list adverse consequences of a pregnancy in early adolescence as well as positive benefits of postponing pregnancy (GPS) (8HE\_H2009-14)

## 8th Grade

### **H - Family Life (*continued*)**

- analyze the physical, social, emotional, legal, financial, and educational issues related to teenage pregnancy (GPS) (8HE\_H2009-15)
- analyze methods to prevent pregnancy and sexually transmitted disease and their degree of effectiveness or lack thereof (GPS) (8HE\_H2009-16)
- recognize abstinence from sexual activity as the only sure method of preventing pregnancy and sexually transmitted diseases (GPS) (8HE\_H2009-17)

### **I - Anatomy and Physiology**

- review identification of the parts of the male and female reproductive systems and description of their functions (GPS) (8HE\_I2009-18)
- identify the parts and function of the cardiorespiratory, endocrine, and digestive systems (GPS) (8HE\_I2009-19)

## **Journalism**

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### **A - Journalism**

- prewrite to generate ideas for writing (QCC) (8JO\_A2010-1)
- draft writing to capture ideas and develop fluency (QCC) (8JO\_A2010-2)
- revise writing to match purposes with audience and to improve content, organization, and style (QCC) (8JO\_A2010-3)
- revise writing to eliminate wordiness (QCC) (8JO\_A2010-4)
- edit for spelling, fragments, and run-on sentences (QCC) (8JO\_A2010-5)
- use writing handouts, grammar checkers, and references to edit usage and mechanics (QCC) (8JO\_A2010-6)
- write to report answers to research questions (QCC) (8JO\_A2010-7)
- write, combine, and vary sentences to match purposes and audience (QCC) (8JO\_A2010-8)
- distinguish between fact and opinion (QCC) (8JO\_A2010-9)
- write Standard American English sentences with correct verb forms, punctuation, capitalization, possessives, plural forms, and other mechanics (QCC) (8JO\_A2010-10)
- recognize and write for a variety of purposes specific to journalism (e.g., news, editorials, and features) (QCC) (8JO\_A2010-11)
- defend editorial conclusions using credible facts, examples, illustrations, and details from various sources (QCC) (8JO\_A2010-12)
- read newspapers, charts, graphs, and technical documents for research (QCC) (8JO\_A2010-13)
- read critically, ask pertinent questions, recognize assumptions and implications, and evaluate ideas (QCC) (8JO\_A2010-14)
- identify, comprehend, and summarize who, what, when, where, and how in a variety of print and non-print resources (QCC) (8JO\_A2010-15)
- take notes in interviews and discussions and report accurately what others have said (QCC) (8JO\_A2010-16)
- use the research process (select a topic, formulate questions, identify key words, choose sources, skim, paraphrase, take notes, organize, summarize, and present ideas) (QCC) (8JO\_A2010-17)
- acquire new vocabulary through research and interview (QCC) (8JO\_A2010-18)
- use a variety of print and non-print resources as parts of the research for stories (QCC) (8JO\_A2010-19)
- prioritize tasks to meet deadlines (QCC) (8JO\_A2010-20)
- work as a team member to solve problems (QCC) (8JO\_A2010-21)
- recognize speaker's purpose and identify verbal and nonverbal components of communication (QCC) (8JO\_A2010-22)
- speak so others can hear and understand (QCC) (8JO\_A2010-23)

**B - Technology and Production/Publication Skills**

- demonstrate ability to use appropriate medium for production/publications (e.g., desktop publishing for print journalism, video equipment for broadcast journalism) (QCC) (8JO\_B2010-24)
- plan interviews by developing questions for print and/or broadcast stories (QCC) (8JO\_B2010-25)
- conduct, record, and accurately report information from interviews (QCC) (8JO\_B2010-26)
- utilize pre-writes, story boards, or split-page format for story development (QCC) (8JO\_B2010-27)
- prepare and refine print articles/script for publication/production (QCC) (8JO\_B2010-28)

**C - Knowledge of Journalism Ethics**

- understand and practice ethical reporting avoiding bias, slander, and plagiarism (QCC) (8JO\_C2010-29)

**D - Knowledge of Journalism Careers**

- identify career opportunities in journalism (e.g., editor-in-chief, editor, reporter, photojournalist, copy reader, advertisement sales, graphic artist) (QCC) (8JO\_D2010-30)

## Latin I

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**A - Communication**

- read authentic and edited passages appropriate for Latin I (GPS) (8L1\_A2009-1)
- comprehend spoken Latin phrases, quotations, and expressions (GPS) (8L1\_A2009-2)
- provide accurate, written English translations (GPS) (8L1\_A2009-3)
- write simple phrases and sentences in Latin as part of the process for understanding written Latin (GPS) (8L1\_A2009-4)
- read passages aloud with proper intonation and rhythm (GPS) (8L1\_A2009-5)

**B - Culture**

- demonstrate an understanding of perspectives, practices, and products of the Greco-Roman culture (GPS) (8L1\_B2009-6)
- interpret cultural practices of the Romans (GPS) (8L1\_B2009-7)

**C - Connections, Comparisons, and Communities**

- reinforce and further the knowledge of other disciplines through the study of Latin (GPS) (8L1\_C2009-8)
- acquire information and recognize distinctive viewpoints via the study of Latin and the Greco-Roman civilization (GPS) (8L1\_C2009-9)
- identify situations and resources in which Latin skills and cultural knowledge may be applied beyond the classroom setting for recreational, educational, and occupational, purposes (GPS) (8L1\_C2009-10)

## Modern Languages Connections

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**A - Communication**

- exchange basic greetings, farewells, and expressions of courtesy orally and in writing (GPS) (8ML\_A2009-1)
- respond to classroom directions (GPS) (8ML\_A2009-2)
- identify vocabulary and respond to simple questions on a variety of topics such as weather, time, family, home, school, and food (GPS) (8ML\_A2009-3)
- manipulate common sequences such as alphabet, calendar, and numbers (GPS) (8ML\_A2009-4)
- identify main ideas and basic details while reading or listening when strongly supported by context or illustrations (GPS) (8ML\_A2009-5)

## 8th Grade

### **B - Culture**

- develop an awareness of perspectives, practices, and products of the cultures where the target language is spoken (GPS) (8ML\_B2009-6)

### **C - Connections, Comparisons, and Communities**

- discuss academic and/or career benefits of language study (GPS) (8ML\_C2009-7)
- use information acquired in the study of the target language and information acquired in other subject areas to reinforce one another (GPS) (8ML\_C2009-8)
- compare the cultures of the target language countries to those of the United States (GPS) (8ML\_C2009-9)
- compare basic elements of the target language to the English language (GPS) (8ML\_C2009-10)
- demonstrate an awareness of current events in the target cultures (GPS) (8ML\_C2009-11)

## **Modern Languages Level I**

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### **A - Communication: Interpersonal Mode**

- exchange simple spoken and written information in the target language (GPS) (8ML1\_A2009-1)
- conduct brief oral and written exchanges in the target language (GPS) (8ML1\_A2009-2)

### **B - Communication: Interpretive Mode**

- demonstrate understanding of simple spoken and written language presented through a variety of media in the target language based on a variety of topics (GPS) (8ML1\_B2009-3)
- interpret verbal and nonverbal cues to understand simple spoken and written messages in the target language (GPS) (8ML1\_B2009-4)

### **C - Communication: Presentational Mode**

- present information orally and in writing containing a variety of vocabulary, phrases, and patterns (GPS) (8ML1\_C2009-5)
- present brief rehearsed material in the target language (GPS) (8ML1\_C2009-6)

### **D - Culture**

- identify perspectives, practices, and products of the culture(s) where the target language is spoken (GPS) (8ML1\_D2009-7)

### **E - Connections, Comparisons, and Communities**

- use information acquired in the study of the target language and information acquired in other subject areas to reinforce one another (GPS) (8ML1\_E2009-8)
- discuss the significance of culture through comparisons of the culture(s) studied and the students' own culture (GPS) (8ML1\_E2009-9)
- compare basic elements of the target language to the English language (GPS) (8ML1\_E2009-10)
- recognize current events in the target culture(s) (GPS) (8ML1\_E2009-11)
- identify situations and resources in which target language skills and cultural knowledge may be applied beyond the classroom setting for recreational, educational, and occupational purposes (GPS) (8ML1\_E2009-12)

## Nanotechnology

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### A - Characteristics of Science

- discuss the importance of curiosity, honesty, openness, and skepticism in science and exhibit these traits in efforts to understand how the world works (8NA\_A2011-1)
- design and conduct full scientific investigations (8NA\_A2011-2)
- use standard safety practices for all classroom laboratory and field investigations (8NA\_A2011-3)
- use technology to collect, observe, measure, and organize data (8NA\_A2011-4)
- use valid critical assumptions to draw conclusions (8NA\_A2011-5)
- apply computation and estimation skills necessary for analyzing data and developing conclusions (8NA\_A2011-6)
- communicate scientific investigations and information clearly (8NA\_A2011-7)
- read scientific materials to establish context for subject matter, develop vocabulary, and to be aware of current research (8NA\_A2011-8)

### B - Academic Knowledge

- describe the field of nanoscience and the interactions of matter and energy at the nanoscale (8NA\_B2011-9)
- evaluate nanotechnology within the field of nanoscience (8NA\_B2011-10)
- describe the challenges and advantages of viewing nanoparticles (8NA\_B2011-11)
- identify nanotechnology as a designed system (8NA\_B2011-12)
- describe the electromagnetic nanosystem (8NA\_B2011-13)
- describe mechanical nanosystems (8NA\_B2011-14)
- describe chemical nanosystems (8NA\_B2011-15)
- apply the forces and uses of self-assembly in the field of nanotechnology (8NA\_B2011-16)
- evaluate the societal impacts of nanotechnology (8NA\_B2011-17)
- examine careers in nanotechnology (8NA\_B2011-18)

### C - Literacy Standards

- cite specific textual evidence to support analysis of technical texts (CCGPS) (8NA\_C2012-1)
- determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (CCGPS) (8NA\_C2012-2)
- follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks (CCGPS) (8NA\_C2012-3)
- determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific technical context (CCGPS) (8NA\_C2012-4)
- 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 (CCGPS) (8NA\_C2012-5)
- analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text (CCGPS) (8NA\_C2012-6)
- 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) (CCGPS) (8NA\_C2012-7)
- distinguish among facts, reasoned judgment based on research findings, and speculation in a text (CCGPS) (8NA\_C2012-8)
- compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic (CCGPS) (8NA\_C2012-9)
- read and comprehend technical texts in the grades 6–8 text complexity band independently and proficiently by the end of grade 8 (CCGPS) (8NA\_C2012-10)
- write arguments focused on discipline-specific content (CCGPS) (8NA\_C2012-11)
- write informative/explanatory texts, including the narration of historical events or technical processes (CCGPS) (8NA\_C2012-12)

### **C - Literacy Standards (*continued*)**

- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (8NA\_C2012-13)
- 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 (CCGPS) (8NA\_C2012-14)
- use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently (CCGPS) (8NA\_C2012-15)
- 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 (CCGPS) (8NA\_C2012-16)
- 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 (CCGPS) (8NA\_C2012-17)
- draw evidence from informational texts to support analysis reflection, and research (CCGPS) (8NA\_C2012-18)
- 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 (CCGPS) (8NA\_C2012-19)

## **Advanced Orchestra**

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### **A - Skills and Techniques/Performance**

- sing, alone and with others, a varied repertoire of music (GPS) (8OR\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (8OR\_A2011-2)
- perform, identify, and notate music (GPS) (8OR\_A2011-3)
- understand instrument care and maintenance (GPS) (8OR\_A2011-4)

### **B - Creation**

- improvise melodies, variations, and accompaniments (GPS) (8OR\_B2011-5)
- compose and arrange music within specified guidelines (GPS) (8OR\_B2011-6)

### **C - Critical Analysis/Investigation**

- listen to, analyze, and describe music (GPS) (8OR\_C2011-7)
- evaluate music and music performances (GPS) (8OR\_C2011-8)

### **D - Cultural and Historical Context**

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (8OR\_D2011-9)
- understand music in relation to history and culture (GPS) (8OR\_D2011-10)

## **Peer Leadership**

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### **A -**

- describe the role, functions, and characteristics of a peer leader (QCC) (8PL\_A1998-2)
- adhere to established ground rules and the National Peer Helping Association ethical guidelines (8PL\_A1998-3)
- explore and apply the fundamental characteristics of facilitative relationships and communication skills (QCC) (8PL\_A1998-4)
- identify and demonstrate interpersonal skills necessary to maintain positive peer relationships (QCC) (8PL\_A1998-6)
- demonstrate an understanding of problem-solving and/or mediation techniques (QCC) (8PL\_A1998-7)

**A - (continued)**

- identify methods of conflict/anger management (QCC) (8PL\_A1998-8)
- explore the concepts of prejudice and discrimination and their impact on peer relationships (QCC) (8PL\_A1998-9)
- identify elements of group interaction (QCC) (8PL\_A1998-10)
- utilize elements of successful group interactions by participating in a variety of roles within group settings (QCC) (8PL\_A1998-11)
- participate in assigned targeted groups within the school community (QCC) (8PL\_A1998-12)
- define positive and negative aspects of peer pressure (QCC) (8PL\_A1998-13)
- indicate a variety of alternatives to negative peer pressure (QCC) (8PL\_A1998-14)
- explore how personal responsibility relates to long- and short-range life and career goals (QCC) (8PL\_A1998-15)
- establish roles, responsibilities, and procedures related to peer tutoring including effective study habits, test-taking skills, and time management (QCC) (8PL\_A1998-16)
- demonstrate knowledge and skills of peer leadership intervention strategies in a variety of settings (8PL\_A1998-17)
- utilize knowledge and understanding gained through individual and/or group projects (8PL\_A1998-18)

## Physical Education

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**A - Fitness**

- participate in health-enhancing fitness activities (GPS) (8PE\_A2009-1)
- demonstrate progress toward or meet health-related fitness standards as defined by research (8PE\_A2009-2)
- apply basic training rules to improve muscular fitness (8PE\_A2009-3)

**B - Motor Skills and Movement Patterns**

- perform a variety of complex throwing and catching patterns (8PE\_B2009-4)
- perform a variety of complex striking patterns (8PE\_B2009-5)
- perform complex timing and rhythm sequences (8PE\_B2009-6)

**C - Movement Concepts and Principles**

- apply movement concepts and principles related to the learning and development of motor skills (GPS) (8PE\_C2009-7)
- apply basic practice and conditioning principles that enhance performance (GPS) (8PE\_C2009-8)
- apply advanced offensive and defensive strategies in modified settings (GPS) (8PE\_C2009-9)

**D - Personal and Social Behaviors**

- exhibit responsible personal and social behavior that respects self and others in physical activity settings (8PE\_D2009-10)
- demonstrate how to work cooperatively and productively in a group to accomplish a set goal in both cooperative and competitive settings (8PE\_D2009-11)

## Advanced Piano

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### A - Skills and Techniques/Performance

- sing, alone and with others, a varied repertoire of music (GPS) (8PI\_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (8PI\_A2011-2)
- read and notate music (GPS) (8PI\_A2011-3)

### B - Creation

- improvise melodies, variations, and accompaniments (GPS) (8PI\_B2011-4)
- compose and arrange music within specified guidelines (GPS) (8PI\_B2011-5)

### C - Critical Analysis/Investigation

- listen to, analyze, and describe music (GPS) (8PI\_C2011-6)
- evaluate music and music performances (GPS) (8PI\_C2011-7)

### D - Cultural and Historical Context

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (8PI\_D2011-8)
- understand music in relation to history and culture (GPS) (8PI\_D2011-9)

## Study Skills

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### A-

- describe and demonstrate the attitudes and habits necessary for school success (8SK\_A1999-1)
- demonstrate appropriate and effective study methods (8SK\_A1999-2)
- set and work towards appropriate goals (8SK\_A1999-3)
- read for the purposes of gathering information and/or following directions (8SK\_A1999-4)
- learn appropriate listening skills (8SK\_A1999-5)
- demonstrate efficient organization and management of time (8SK\_A1999-6)
- demonstrate efficient organization and management of materials and space (8SK\_A1999-7)
- select and demonstrate appropriate problem-solving strategies (e.g., math word problems, brain teasers, personal problem-solving, and study methods) (8SK\_A1999-8)
- use graphic aids found in textbooks and other sources of information (e.g., maps, graphs, charts, and tables) (8SK\_A1999-9)
- identify appropriate test-taking strategies (8SK\_A1999-10)

## Theatre Arts

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### A - Creation

- analyze and construct meaning from theatrical experiences (GPS) (8TA\_A2011-1)
- develop scripts through various theatrical methods (GPS) (8TA\_A2011-2)
- develop and sustain character through theatrical activities (GPS) (8TA\_A2011-3)
- develop and create artistic and technical elements of theatre (GPS) (8TA\_A2011-4)
- plan, organize, and direct rehearsals for performance (GPS) (8TA\_A2011-5)
- demonstrate responsibility to the group through attendance, punctuality, cooperation, leadership, listening, preparation, and self-discipline (GPS) (8TA\_A2011-6)

**B - Cultural and Historical Context**

- investigate historical and multicultural heritage related to theater activities (GPS) (8TA\_B2011-7)
- connect various art forms, other content areas, and life experiences through theatre activities (GPS) (8TA\_B2011-8)
- examine the cultural role of theatre (GPS) (8TA\_B2011-9)
- explore career opportunities in theatre (GPS) (8TA\_B2011-10)

**C - Critical Analysis/Investigation**

- evaluate theatre presentations using appropriate supporting evidence (GPS) (8TA\_C2011-11)

## Visual Arts

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**A - Create, Design, Engage, and Connect**

- visualize and generate ideas with a variety of two-dimensional and three-dimensional art methods and materials to create through a process of authentic engagement (GPS) (8VA\_A2011-1)
- create artwork from personal experience by connecting background knowledge to current content (GPS) (8VA\_A2011-2)
- apply proper care and safe use of materials and tools (GPS) (8VA\_A2011-3)
- engage in the task at hand, collaborate effectively, and move smoothly among whole group, small group, and individual tasks (GPS) (8VA\_A2011-4)
- employ technology in the creation of art as a medium and resource (GPS) (8VA\_A2011-5)

**B - Perceive and Analyze**

- analyze artwork using the language of art (elements and principles) to develop ideas and resolve problems (GPS) (8VA\_B2011-6)
- interpret art through discussion and/or written reflection to respond to, apply, and communicate content (GPS) (8VA\_B2011-7)
- develop ability in visual communication to differentiate media in works of art (GPS) (8VA\_B2011-8)

**C - Investigate Contextual and Cultural Understanding**

- synthesize knowledge of values, themes, and aesthetics of different cultures and contexts (GPS) (8VA\_C2011-9)
- apply information from other disciplines to enhance understanding and production of artworks (GPS) (8VA\_C2011-10)
- expand knowledge of art as a profession and/or avocation (GPS) (8VA\_C2011-11)
- discover how the creative process relates to art history (GPS) (8VA\_C2011-12)

**D - Assess and Respond**

- engage in aesthetics and participate in dialogue about artwork using a variety of approaches (GPS) (8VA\_D2011-13)
- explore the process of critical analysis of art (description, interpretation, analysis, and judgment) using own artwork and the artwork of others (GPS) (8VA\_D2011-14)

## Language Arts

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### A - Reading: Literature

- quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text (CCGPS) (5LA\_A2012-1/ELACC5RL1)
- 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 (CCGPS) (5LA\_A2012-2/ELACC5RL2)
- 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) (CCGPS) (5LA\_A2012-3/ELACC5RL3)
- determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes (CCGPS) (5LA\_A2012-4/ELACC5RL4)
- explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem (CCGPS) (5LA\_A2012-5/ELACC5RL5)
- describe how a narrator's or speaker's point of view influences how events are described (CCGPS) (5LA\_A2012-6/ELACC5RL6)
- 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) (CCGPS) (5LA\_A2012-7/ELACC5RL7)
- compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics (CCGPS) (5LA\_A2012-8/ELACC5RL9)
- read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently by the end of grade 5 (CCGPS) (5LA\_A2012-9/ELACC5RL10)

### B - Reading: Informational Text

- quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text (CCGPS) (5LA\_B2012-10/ELACC5RI1)
- determine two or more main ideas of a text and explain how they are supported by key details; summarize the text (CCGPS) (5LA\_B2012-11/ELACC5RI2)
- 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 (CCGPS) (5LA\_B2012-12/ELACC5RI3)
- determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area (CCGPS) (5LA\_B2012-13/ELACC5RI4)
- 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 (CCGPS) (5LA\_B2012-14/ELACC5RI5)
- analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent (CCGPS) (5LA\_B2012-15/ELACC5RI6)
- 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 (CCGPS) (5LA\_B2012-16/ELACC5RI7)
- explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence supports which point(s) (CCGPS) (5LA\_B2012-17/ELACC5RI8)
- integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably (CCGPS) (5LA\_B2012-18/ELACC5RI9)
- 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 by the end of grade 5 (CCGPS) (5LA\_B2012-19/ELACC5RI10)

### C - Reading: Foundational Skills

- know and apply grade-level phonics and word analysis skills in decoding words (CCGPS) (5LA\_C2012-20/ELACC5RF3)
- read with sufficient accuracy and fluency to support comprehension (CCGPS) (5LA\_C2012-21/ELACC5RF4)

**D - Writing**

- write opinion pieces on topics or texts, supporting a point of view with reasons and information (CCGPS) (5LA\_D2012-22/ELACC5W1)
- write informative/explanatory texts to examine a topic and convey ideas and information clearly (CCGPS) (5LA\_D2012-23/ELACC5W2)
- write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences (CCGPS) (5LA\_D2012-24/ELACC5W3)
- produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience (CCGPS) (5LA\_D2012-25/ELACC5W4)
- develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, with guidance and support from peers and adults (CCGPS) (5LA\_D2012-26/ELACC5W5)
- 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, with some guidance and support from adults (CCGPS) (5LA\_D2012-27/ELACC5W6)
- conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic (CCGPS) (5LA\_D2012-28/ELACC5W7)
- 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 (CCGPS) (5LA\_D2012-29/ELACC5W8)
- draw evidence from literary or informational texts to support analysis, reflection, and research (CCGPS) (5LA\_D2012-30/ELACC5W9)
- 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 (CCGPS) (5LA\_D2012-31/ELACC5W10)

**E - Speaking and Listening**

- engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and text, building on others' ideas and expressing their own clearly (CCGPS) (5LA\_E2012-32/ELACC5SL1)
- summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally (CCGPS) (5LA\_E2012-33/ELACC5SL2)
- summarize the points a speaker makes and explain how each claim is supported by reasons and evidence (CCGPS) (5LA\_E2012-34/ELACC5SL3)
- 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 (CCGPS) (5LA\_E2012-35/ELACC5SL4)
- include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes (CCGPS) (5LA\_E2012-36/ELACC5SL5)
- adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation (CCGPS) (5LA\_E2012-37/ELACC5SL6)

**F - Language**

- demonstrate command of the conventions of standard English grammar and usage when writing or speaking (CCGPS) (5LA\_F2012-38/ELACC5L1)
- demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing (CCGPS) (5LA\_F2012-39/ELACC5L2)
- use knowledge of language and its conventions when writing, speaking, reading, or listening (CCGPS) (5LA\_F2012-40/ELACC5L3)
- 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 (CCGPS) (5LA\_F2012-41/ELACC5L4)

**F – Language (*continued*)**

- demonstrate understanding of figurative language, word relationships, and nuances in word meanings (CCGPS) (5LA\_F2012-42/ELACCC5L5)
- acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, vocabulary, including that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition) (CCGPS) (5LA\_F2012-43/ELACCC5L6)

## Mathematics

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**A - Operations and Algebraic Thinking**

- use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols (CCGPS) (5MA\_A2012-1/MCC5.OA.1)
- write simple expressions that record calculations with numbers and interpret numerical expressions without evaluating them [e.g., express the calculation “add 8 and 7, then multiply by 2” as  $2 \times (8 + 7)$ ] and recognize that  $3 \times (18932 + 921)$  is three times as large as  $18932 + 921$ , without having to calculate the indicated sum or product (CCGPS) (5MA\_A2012-2/MCC5.OA.2)
- form and graph ordered pairs of corresponding terms for numerical patterns (e.g., 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) (CCGPS) (5MA\_A2012-3/MCC5.OA.3)

**B - Number and Operations in Base Ten**

- 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 (CCGPS) (5MA\_B2012-4/MCC5.NBT.1)
- 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 (CCGPS) (5MA\_B2012-5/MCC5.NBT.2)
- read, write, order, and compare place value of decimals to thousandths using base ten numerals, number names, and expanded form [e.g.,  $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$ ] (CCGPS) (5MA\_B2012-6/MCC5.NBT.3/MCC5.NBT.3\_a)
- compare two decimals to thousandths based on meanings of the digits in each place, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons (CCGPS) (5MA\_B2012-7/MCC5.NBT.3\_b)
- round decimals to any place using tools such as a number line and/or charts (CCGPS) (5MA\_B2012-8/MCC5.NBT.4)
- multiply multi-digit whole numbers fluently using the standard algorithm (CCGPS) (5MA\_B2012-9/MCC5.NBT.5)
- solve problems involving division of up to four-digit whole number dividends by a one- or two-digit whole number divisor using strategies based on place value, properties and/or relationship between multiplication and division, including problems that generate a remainder (CCGPS) (5MA\_B2012-10/MCC5.NBT.6)
- illustrate and explain division calculations by using equations, rectangular arrays, and/or area models (CCGPS) (5MA\_B2012-11/MCC5.NBT.6)
- 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 (CCGPS) (5MA\_B2012-12/MCC5.NBT.7)

**C - Number and Operations: Fractions**

- 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 (e.g.,  $2/3 + 5/4 = 8/12 + 15/12 = 23/12$ ) (CCGPS) (5MA\_C2012-13/MCC5.NF.1)

**C - Number and Operations: Fractions (continued)**

- use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers (e.g., recognize an incorrect result  $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$ , by observing that  $\frac{3}{7} < \frac{1}{2}$ ) (CCGPS) (5MA\_C2012-14/MCC5.NF.2)
- solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (CCGPS) (5MA\_C2012-15/MCC5.NF.2)
- use words, pictures, and/or numbers to show that division of whole numbers can be represented as a fraction ( $a/b = a \div b$ ) (CCGPS) (5MA\_C2012-16/MCC5.NF.3)
- solve word problems, by using visual fraction models, involving division of whole numbers leading to answers in the form of fractions or mixed numbers (e.g., interpret  $\frac{3}{4}$  as the result of dividing 3 by 4 noting that  $\frac{3}{4}$  multiplied by 4 equals 3 and that when 3 wholes are shared equally among 4 people each person has a share of size  $\frac{3}{4}$ ) (CCGPS) (5MA\_C2012-17/MCC5.NF.3)
- apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction (CCGPS) (5MA\_C2012-18/MCC5.NF.4)
- 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  $a \times q/b$  (e.g., use a visual fraction model to show  $(\frac{2}{3}) \times 4 = \frac{8}{3}$  and create a story context for this equation; do the same with  $(\frac{2}{3}) \times (\frac{4}{5}) = \frac{8}{15}$ ) (CCGPS) (5MA\_C2012-19/MCC5.NF.4\_a)
- 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 (CCGPS) (5MA\_C2012-20/MCC5.NF.4\_b)
- relate the principle of fraction equivalence,  $a/b = (n \times a)/(n \times b)$ , to the effect of multiplying  $a/b$  by 1 (CCGPS) (5MA\_C2012-21/MCC5.NF.5)
- interpret multiplication as scaling by comparing the size of the product to the sizes of the factors without multiplying (CCGPS) (5MA\_C2012-22/MCC5.NF.5\_a)
- explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number and why multiplying a given number by a fraction less than 1 results in a product smaller than the given number (CCGPS) (5MA\_C2012-23/MCC5.NF.5\_b)
- solve real-world problems involving multiplication of fractions and mixed numbers by using visual fraction models or equations to represent the problem (CCGPS) (5MA\_C2012-24/MCC5.NF.6)
- interpret division of a unit fraction by a non-zero whole number and compute such quotients (e.g., create a story context for  $(\frac{1}{3}) \div 4$  and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that  $(\frac{1}{3}) \div 4 = \frac{1}{12}$  because  $(\frac{1}{12}) \times 4 = \frac{1}{3}$ ) (CCGPS) (5MA\_C2012-25/MCC5.NF.7\_a)
- interpret division of a whole number by a unit fraction and compute such quotients (e.g., create a story context for  $4 \div (\frac{1}{5})$  and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that  $4 \div (\frac{1}{5}) = 20$  because  $20 \times (\frac{1}{5}) = 4$ ) (CCGPS) (5MA\_C2012-26/MCC5.NF.7\_b)
- 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  $\frac{1}{2}$  lb of chocolate equally? How many  $\frac{1}{3}$ -cup servings are in 2 cups of raisins?) (CCGPS) (5MA\_C2012-27/MCC5.NF.7\_c)

**D - Measurement and Data**

- convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step, real-world problems (e.g., convert 5 cm to 0.05 m) (5MA\_D2012-28/MCC5.MD.1)
- make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ) and solve problems using the line plot data (CCGPS) (5MA\_D2012-29/MCC5.MD.2)
- use words, pictures, or numbers to show a cubic unit is represented by a cube in which each edge has a length of one unit (CCGPS) (5MA\_D2012-30/MCC5.MD.3\_a)
- apply concepts of volume measurement to explain volume as an attribute of solid figures packed without gaps or overlaps using “n” unit cubes (CCGPS) (5MA\_D2012-31/MCC5.MD.3\_b)
- measure volume as cubic centimeters, cubic meters, cubic inches, cubic feet, and cubic yards (CCGPS) (5MA\_D2012-32/MCC5.MD.4)

## 5th Grade

### **D - Measurement and Data (*continued*)**

- relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume (CCGPS) (5MA\_D2012-33/MCC5.MD.5)
- 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 (CCGPS) (5MA\_D2012-34/MCC5.MD.5\_a)
- estimate, derive and apply the formula ( $V = l \times w \times h$  and  $V = b \times h$ ) for the volume of a cube and a right rectangular prism using manipulatives and relate volume to the operations of multiplication and addition to solve real-world and mathematical problems (CCGPS) (5MA\_D2012-35/MCC5.MD.5\_b)
- recognize and calculate volume as additive when 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 (CCGPS) (5MA\_D2012-36/MCC5.MD.5\_c)

### **E - Geometry**

- create, label, and use a coordinate grid system (CCGPS) (5MA\_E2012-37/MCC5.G.1)
- 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 (CCGPS) (5MA\_E2012-38/MCC5.G.2)
- demonstrate that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category (e.g., all rectangles have four right angles and squares are rectangles so all squares have four right angles) (CCGPS) (5MA\_E2012-39/MCC5.G.3)
- classify two-dimensional figures in a hierarchy based on properties (CCGPS) (5MA\_E2012-40/MCC5.G.4)

### **TC - Number and Operations: Fractions**

- 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 (CCGPS) (5MA\_TC2012-41/MCC4.NF.1)
- compare two fractions with different numerators and different denominators by creating common denominators or numerators, or by comparing to a benchmark fraction such as  $1/2$  (CCGPS) (5MA\_TC2012-42/MCC4.NF.2)
- use the symbols  $>$ ,  $=$ , or  $<$  to compare fractions and justify the conclusions by using a visual fraction model (CCGPS) (5MA\_TC2012-43/MCC4.NF.2)
- recognize that a fraction  $a/b$  with  $a > 1$  as a sum of fractions  $1/b$  (CCGPS) (5MA\_TC2012-44/MCC4.NF.3)
- model and explain addition and subtraction of fractions as joining and separating parts referring to the same whole (CCGPS) (5MA\_TC2012-45/MCC4.NF.3\_a)
- decompose a fraction, by using a visual fraction model, into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation (e.g.,  $3/8 = 1/8 + 1/8 + 1/8$ ;  $3/8 = 1/8 + 2/8$ ;  $2 \frac{1}{8} = 1 + 1 + 1/8$ ;  $8/8 = 7/8 + 1/8$ ) (CCGPS) (5MA\_TC2012-46/MCC4.NF.3\_b)
- 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) (CCGPS) (5MA\_TC2012-47/MCC4.NF.3\_c)
- solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators by using visual fraction models and equations to represent the problem (CCGPS) (5MA\_TC2012-48/MCC4.NF.3\_d)
- apply and extend previous understanding of multiplication to multiply a fraction by a whole number (CCGPS) (5MA\_TC2012-49/MCC4.NF.4)
- recognize a fraction  $a/b$  as a multiple of  $1/b$  [e.g., use a visual fraction model to represent  $5/4$  as the product  $5 \times (1/4)$ , recording the conclusion by the equation  $5/4 = 5 \times (1/4)$ ] (CCGPS) (5MA\_TC2012-50/MCC4.NF.4\_a)
- understand a multiple of  $a/b$  as a multiple of  $1/b$ , and use this understanding to multiply a fraction by a whole number [e.g., use a visual fraction model to express  $3 \times (2/5)$  as  $6 \times (1/5)$ , recognizing this product as  $6/5$ ; (In general,  $n \times (a/b) = (n \times a)/b$ ] (CCGPS) (5MA\_TC2012-51/MCC4.NF.4\_b)

**TC - Number and Operations: Fractions (continued)**

- 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  $\frac{3}{8}$  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?) (CCGPS) (5MA\_TC2012-52/MCC4.NF.4\_c)

## Science

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**A - Characteristics of Science**

- discuss the importance of curiosity, honesty, openness, and skepticism in science and exhibit these traits in efforts to understand how the world works (GPS, ITBS) (5SC\_A2006-1)
- demonstrate knowledge of scientific processes and inquiry methods (GPS, ITBS) (5SC\_A2006-2)
- apply computation and estimation skills necessary for analyzing data and following scientific explanations (GPS, ITBS) (5SC\_A2006-3)
- use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing safe laboratory procedures (GPS, ITBS) (5SC\_A2006-4)
- use the concepts of system, model, change, and scale when exploring scientific and technological matters (GPS, ITBS) (5SC\_A2006-5)
- communicate scientific ideas and activities clearly (GPS, ITBS) (5SC\_A2006-6)
- question scientific claims and arguments effectively (GPS, ITBS) (5SC\_A2006-7)

**B - Earth Science**

- analyze how surface features of the earth are caused by constructive and destructive processes (GPS, ITBS) (5SC\_B2006-8)

**C - Physical Science**

- verify that an object is the sum of its parts (GPS) (5SC\_C2006-9)
- distinguish between physical changes and chemical changes (GPS, ITBS) (5SC\_C2006-10)
- investigate electricity and magnetism and their relationship to one another (GPS, ITBS) (5SC\_C2006-11)

**D - Life Science**

- classify organisms to simplify the study of living things (GPS, ITBS) (5SC\_D2006-12)
- identify the cell as the building block of living organisms (GPS, ITBS) (5SC\_D2006-13)
- compare and contrast the characteristics of learned behaviors and inherited traits (GPS, ITBS) (5SC\_D2006-14)
- analyze how microorganisms benefit or harm other organisms (GPS) (5SC\_D2007-1)

## Social Studies

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**A - Map and Globe Skills**

- use cardinal directions (GPS) (5SS\_A2008-1)
- use intermediate directions (GPS) (5SS\_A2008-2)
- use a letter/number grid system to determine location (GPS) (5SS\_A2008-3)
- compare and contrast the categories of natural, cultural, and political features found on maps (GPS) (5SS\_A2008-4)
- use inch-to-inch map scale to determine distance on a map (GPS) (5SS\_A2008-5)

## 5th Grade

### **A - Map and Globe Skills (*continued*)**

- use map key/legend to acquire information from historical, physical, political, resource, product, and economic maps (GPS) (5SS\_A2008-6)
- use a map to explain impact of geography on historical and current events (GPS) (5SS\_A2008-7)
- draw conclusions and make generalizations based on information from maps (GPS) (5SS\_A2008-8)
- use latitude and longitude to determine location (GPS) (5SS\_A2008-9)
- use graphic scales to determine distances on a map (GPS) (5SS\_A2008-10)
- compare maps of the same place at different points in time and from different perspectives to determine changes, identify trends, and generalize about activities (GPS) (5SS\_A2008-11)
- compare maps with data sets (charts, tables, graphs) and/or readings to draw conclusions and make generalizations (GPS) (5SS\_A2008-12)

### **B - Information Processing Skills**

- compare similarities and differences (GPS) (5SS\_B2008-13)
- organize items chronologically (GPS) (5SS\_B2008-14)
- identify issues and/or problems and alternative solutions (GPS) (5SS\_B2008-15)
- distinguish between fact and opinion (GPS) (5SS\_B2008-16)
- identify main idea, detail, sequence of events, and cause and effect in a social studies context (GPS) (5SS\_B2008-17)
- identify and use primary and secondary sources (GPS) (5SS\_B2008-18)
- interpret timelines (GPS) (5SS\_B2008-19)
- identify social studies reference resources to use for a specific purpose (GPS) (5SS\_B2008-20)
- construct charts and tables (GPS) (5SS\_B2008-21)
- analyze artifacts (GPS) (5SS\_B2008-22)
- draw conclusions and make generalizations (GPS) (5SS\_B2008-23)
- analyze graphs and diagrams (GPS) (5SS\_B2008-24)
- translate dates into centuries, eras, or ages (GPS) (5SS\_B2008-25)
- formulate appropriate research questions (GPS) (5SS\_B2008-26)
- determine adequacy and/or relevancy of information (GPS) (5SS\_B2008-27)
- check for consistency of information (GPS) (5SS\_B2008-28)
- interpret political cartoons (GPS) (5SS\_B2008-29)

### **C - The Civil War**

- explain the causes, major events, and consequences of the Civil War (GPS) (5SS\_C2008-30)
- locate important places in the United States associated with the Civil War (GPS) (5SS\_C2008-31)
- explain the reasons for the spatial patterns of economic activities (GPS) (5SS\_C2008-32)
- explain how a citizen's rights are protected under the U.S. Constitution and are related to the Civil War (GPS) (5SS\_C2008-33)

### **D - Reconstruction**

- analyze the effects of Reconstruction on American life (GPS) (5SS\_D2008-34)
- locate important places in the United States associated with Reconstruction (GPS) (5SS\_D2008-35)
- explain how a citizen's rights are protected under the U.S. Constitution and are related to Reconstruction (GPS) (5SS\_D2008-36)
- explain the process by which amendments to the U.S. Constitution are made (GPS) (5SS\_D2008-37)
- analyze the ways in which the influx of entrepreneurial northern businessmen affected Reconstruction (GPS) (5SS\_D2008-38)

### **E - Turn of the Century**

- describe how life changed in America at the turn of the century (GPS) (5SS\_E2008-39)
- locate important places in the United States associated with the turn of the century (GPS) (5SS\_E2008-40)

**E - Turn of the Century (continued)**

- explain the reasons for the spatial patterns of economic activities (GPS) (5SS\_E2008-41)
- explain how a citizen's rights are protected under the U.S. Constitution and are related to turn of the century America (GPS) (5SS\_E2008-42)
- explain the process by which amendments to the U.S. Constitution are made (GPS) (5SS\_E2008-43)
- explain how amendments to the U.S. Constitution have maintained a representative democracy (GPS) (5SS\_E2008-44)
- explain the meaning of "e pluribus unum" and the reason it is the motto of the United States (GPS) (5SS\_E2008-45)

**F - World War I**

- describe U.S. involvement in World War I and post-World War I America (GPS) (5SS\_F2008-46)
- explain the role the United States played in World War I and how these experiences affected political, economic, military, and lifestyle changes (5SS\_F2008-47)
- define, map, and explain the dispersion of the primary economic activities within the United States since the turn of the century (GPS) (5SS\_F2008-48)
- map and explain how the dispersion of global economic activities contributed to the United States emerging from World War I as a world power (GPS) (5SS\_F2008-49)

**G - The Great Depression**

- explain how the Great Depression and New Deal affected the lives of millions of Americans (GPS) (5SS\_G2008-50)

**H - World War II**

- cite reasons for the American entry into World War II in Europe and the Pacific (GPS) (5SS\_H2008-51)
- locate important places associated with World War II including Pearl Harbor, the countries involved, and the major battles (GPS) (5SS\_H2008-52)

**I - The Cold War**

- discuss the origins and consequences of the Cold War (GPS) (5SS\_I2008-53)
- describe the importance of key people, events, and developments between 1950 and 1975 (GPS) (5SS\_I2008-54)

**J - America Since 1975**

- trace important developments in America since 1975 (GPS) (5SS\_J2008-55)

**K - Economics and Personal Finance**

- analyze the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity, and price incentives to illustrate historical events (GPS) (5SS\_K2008-56)
  - describe the functions of the four major institutions in the U.S. economy in each era of United States history (GPS) (5SS\_K2008-57)
  - describe how consumers and businesses interact in the United States economy across time (GPS) (5SS\_K2008-58)
  - identify the elements of a personal budget and explain why personal spending and saving decisions are important (GPS) (5SS\_K2008-59)
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## Freshman Language Arts

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### A - Reading: Literature

- cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text (CCGPS) (LA09\_A2012-1/ELACC9-10RL1)
- 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 (CCGPS) (LA09\_A2012-2/ELACC9-10RL2)
- 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 (CCGPS) (LA09\_A2012-3/ELACC9-10RL3)
- 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) (CCGPS) (LA09\_A2012-4/ELACC9-10RL4)
- 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 (CCGPS) (LA09\_A2012-5/ELACC9-10RL5)
- 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 (CCGPS) (LA09\_A2012-6/ELACC9-10RL6)
- 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) (CCGPS) (LA09\_A2012-7/ELACC9-10RL7)
- 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) (CCGPS) (LA09\_A2012-8/ELACC9-10RL9)
- 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 9 (CCGPS) (LA09\_A2012-9/ELACC9-10RL10)

### B - Reading: Informational Text

- cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text (CCGPS) (LA09\_B2012-10/ELACC9-10RI1)
- 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 (CCGPS) (LA09\_B2012-11/ELACC9-10RI2)
- 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 (CCGPS) (LA09\_B2012-12/ELACC9-10RI3)
- 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) (CCGPS) (LA09\_B2012-13/ELACC9-10RI4)
- 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) (CCGPS) (LA09\_B2012-14/ELACC9-10RI5)
- 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 (CCGPS) (LA09\_B2012-15/ELACC9-10RI6)
- 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 (CCGPS) (LA09\_B2012-16/ELACC9-10RI7)
- 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 (CCGPS) (LA09\_B2012-17/ELACC9-10RI8)

**B - Reading: Informational Text (*continued*)**

- 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 (CCGPS) (LA09\_B2012-18/ELACC9-10RI9)
- 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 9 (CCGPS) (LA09\_B2012-19/ELACC9-10RI10)

**C - Writing**

- write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence (CCGPS) (LA09\_C2012-20/ELAC9-10W1)
- 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 (CCGPS) (LA09\_C2012-21/ELACC9-10W2)
- write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences (CCGPS) (LA09\_C2012-22/ELACC9-10W3)
- produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (CCGPS) (LA09\_C2012-23/ELACC9-10W4)
- 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 (CCGPS) (LA09\_C2012-24/ELACC9-10W5)
- 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 (CCGPS) (LA09\_C2012-25/ELACC9-10W6)
- conduct short as well as more sustained research projects to answer questions (including self-generated questions) or solve problems; narrow or broaden inquiries when appropriate; synthesize multiple sources on the subjects, demonstrating understanding of the subjects under investigation (CCGPS) (LA09\_C2012-26/ELACC9-10W7)
- 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 (CCGPS) (LA09\_C2012-27/ELACC9-10W8)
- draw evidence from literary or informational texts to support analysis, reflection, and research (CCGPS) (LA09\_C2012-28/ELACC9-10W9)
- 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 (CCGPS) (LA09\_C2012-29/ELACC9-10W10)

**D - Speaking and Listening**

- 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 (CCGPS) (LA09\_D2012-30/ELACC9-10SL1)
- integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source (CCGPS) (LA09\_D2012-31/ELACC9-10SL2)
- evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence (CCGPS) (LA09\_D2012-32/ELACC9-10SL3)
- 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 (CCGPS) (LA09\_D2012-33/ELACC9-10SL4)
- 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 (CCGPS) (LA09\_D2012-34/ELACC9-10SL5)
- adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate (CCGPS) (LA09\_D2012-35/ELACC9-10SL6)

## 9th Grade

### E - Language

- demonstrate command of the conventions of standard English grammar and usage when writing or speaking (CCGPS) (LA09\_E2012-36/ELACC9-10L1)
- demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing (CCGPS) (LA09\_E2012-37/ELACC9-10L2)
- 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 (CCGPS) (LA09\_E2012-38/ELACC9-10L3)
- 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 (CCGPS) (LA09\_E2012-39/ELACC9-10L4)
- demonstrate understanding of figurative language, word relationships, and nuances in word meanings (CCGPS) (LA09\_E2012-40/ELACC9-10L5)
- 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 (CCGPS) (LA09\_E2012-41/ELACC9-10L6)

## Algebra I CC

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### A - Algebra

- interpret expressions that represent a quantity in terms of its context (Emphasis on linear expressions and exponential expressions with integer exponents.) (CCGPS) (MAL1\_A2012-1/MCC9-12.SSE.1)
- interpret parts of an expression such as terms, factors, and coefficients (Emphasis on linear expressions and exponential expressions with integer exponents.) (CCGPS) (MAL1\_A2012-2/MCC9-12.SSE.1\_a)
- interpret complicated expressions by viewing one or more of their parts as a single entity (Emphasis on linear expressions and exponential expressions with integer exponents.) (CCGPS) (MAL1\_A2012-3/MCC9-12.SSE.1\_b)
- create equations and inequalities in one variable and use them to solve problems (Include equations arising from linear and exponential functions) (CCGPS) (MAL1\_A2012-4/MCC9-12.CED.1)
- create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales (Limit to linear and exponential equations and in the case of exponential equations, limit to situations requiring evaluation of exponential functions at integer inputs) (CCGPS) (MAL1\_A2012-5/MCC9-12.CED.2)
- represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context [e.g., represent inequalities describing nutritional and cost constraints on combinations of different foods (Limit to linear equations and inequalities.)] (CCGPS) (MAL1\_A2012-6/MCC9-12.CED.3)
- rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations (Limit to formulas with a linear focus.) (CCGPS) (MAL1\_A2012-7/MCC9-12.CED.4)
- 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. (Students should focus on and master linear equations and be able to extend and apply their reasoning to other types of equations in future courses.) (CCGPS) (MAL1\_A2012-8/MCC9-12.REI.1)
- solve linear equations and inequalities in one variable, including equations with coefficients represented by letters (Extend earlier work with solving linear equations to solving linear inequalities in one variable and to solving literal equations that are linear in the variable being solved for. Include simple exponential equations that rely only on application of the laws of exponents, such as  $5^a = 125$  or  $2^a = 1/16$ ) (CCGPS) (MAL1\_A2012-9/MCC9-12.REI.3)
- solve a system of two equations in two variables using elimination and substitution methods (Limit to linear systems.) (CCGPS) (MAL1\_A2012-10/MCC9-12.REI.5)
- solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables (CCGPS) (MAL1\_A2012-11/MCC9-12.REI.6)

**A – Algebra (*continued*)**

- demonstrate 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) (CCGPS) (MAL1\_A2012-12/MCC9-12.REI.10)
- 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, exponential, functions (CCGPS) (MAL1\_A2012-13/MCC9-12.REI.11)
- 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 (CCGPS) (MAL1\_A2012-14/MCC9-12.REI.12)

**B - Statistics and Probability**

- create graphical representations of data on a number line (including dot plots, histograms, and box plots) (CCGPS) (MAL1\_B2012-15/MCC9-12.ID.1)
- use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range) of two or more different data sets (CCGPS) (MAL1\_B2012-16/MCC9-12.ID.2)
- interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers) (CCGPS) (MAL1\_B2012-17/MCC9-12.ID.3)
- interpret relative frequencies in context of the data including joint, marginal, and conditional relative frequencies (CCGPS) (MAL1\_B2012-18/MCC9-12.ID.5)
- summarize categorical data for two categories in two-way frequency tables and recognize possible associations and trends in the data (CCGPS) (MAL1\_B2012-19/MCC9-12.ID.5)
- represent data on two quantitative variables on a scatter plot and describe how the variables are related (CCGPS) (MAL1\_B2012-20/MCC9-12.ID.6)
- fit a function to data; use functions fitted to data to solve problems in the context of the data emphasizing linear and exponential models (CCGPS) (MAL1\_B2012-21/MCC9-12.ID.6\_a)
- assess informally the fit of a function by plotting and analyzing residuals (CCGPS) (MAL1\_B2012-22/MCC9-12.ID.6\_b)
- fit a linear function for a scatter plot that suggests a linear association (CCGPS) (MAL1\_B2012-23/MCC9-12.ID.6\_c)
- determine and interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data (CCGPS) (MAL1\_B2012-24/MCC9-12.ID.7)
- compute (using technology) and interpret the correlation coefficient of a linear fit (CCGPS) (MAL1\_B2012-25/MCC9-12.ID.8)
- distinguish between correlation and causation in interpreting linear models (CCGPS) (MAL1\_B2012-26/MCC9-12.ID.9)

**C - Geometry**

- use 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 (CCGPS) (MAL1\_C2012-27/MCC9-12.CO.1)
- 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) (CCGPS) (MAL1\_C2012-28/MCC9-12.CO.2)
- employ properties of rectangles, parallelograms, trapezoids, and regular polygons to describe rotations and reflections that map a polygon onto itself (CCGPS) (MAL1\_C2012-29/MCC9-12.CO.3)
- explain, apply, and experimentally verify definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments (CCGPS) (MAL1\_C2012-30/MCC9-12.CO.4)
- 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 (CCGPS) (MAL1\_C2012-31/MCC9-12.CO.5)
- prove simple geometric theorems algebraically using coordinates (CCGPS) (MAL1\_C2012-32/MCC9-12.GPE.4)

## 9th Grade

### **C – Geometry (*continued*)**

- 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) (CCGPS) (MAL1\_C2012-33/MCC9-12.GPE.5)
- determine the point on a line segment between two given points that divides the segment in a given ratio (CCGPS) (MAL1\_C2012-34/MCC9-12.GPE.6)
- compute perimeters of polygons and areas of triangles and rectangles using coordinates including the use of the distance formula (CCGPS) (MAL1\_C2012-35/MCC9-12.GPE.7)

### **D - Functions**

- 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 [(e.g., 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  $y = f(x)$ ). (Draw examples from linear and exponential functions.)] (CCGPS) (MAL1\_D2012-36/MCC9-12.IF.1)
- evaluate functions for inputs in their domains using function notation and interpret statements that use function notation in terms of a context (Draw examples from linear and exponential functions) (CCGPS) (MAL1\_D2012-37/MCC9-12.IF.2)
- recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers (e.g., the Fibonacci sequence is defined recursively by  $f(0) = f(1) = 1$ ,  $f(n+1) = f(n) + f(n-1)$  for  $n > 1$ ; draw connection to F.BF.2, which requires students to write arithmetic and geometric sequences) (CCGPS) (MAL1\_D2012-38/MCC9-12.IF.3)
- interpret key features of graphs and tables for a function that models a relationship between two quantities in terms of the quantities for a function that models a relationship between two 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) (Focus on linear and exponential functions.)] (CCGPS) (MAL1\_D2012-39/MCC9-12.IF.4)
- relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes (Focus on linear and exponential functions.) (CCGPS) (MAL1\_D2012-40/MCC9-12.IF.5)
- 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 (Focus on linear functions and intervals for exponential functions whose domain is a subset of the integers) (CCGPS) (MAL1\_D2012-41/MCC9-12.IF.6)
- graph functions expressed symbolically and show key features of the graph by hand in simple cases and using technology for more complicated cases (Focus on linear and exponential functions. Include comparisons of two functions presented algebraically) (CCGPS) (MAL1\_D2012-42/MCC9-12.IF.7)
- graph linear functions and show intercepts, maxima, and minima (CCGPS) (MAL1\_D2012-43/MCC9-12.IF.7\_a)
- graph exponential functions showing intercepts and end behavior (CCGPS) (MAL1\_D2012-44/MCC9-12.IF.7\_e)
- compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions) (e.g., given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum) (CCGPS) (MAL1\_D2012-45/MCC9-12.IF.9)
- write a function that describes a relationship between two quantities (Limit a linear and exponential functions.) (CCGPS) (MAL1\_D2012-46/MCC9-12.BF.1)
- determine an explicit expression, a recursive process, or steps for calculation from a context (Limit to linear and exponential functions.) (CCGPS) (MAL1\_D2012-47/MCC9-12.BF.1\_a)
- combine standard function types using arithmetic operations (Limit to linear and exponential functions.) (CCGPS) (MAL1\_D2012-48/MCC9-12.BF.1\_b)
- write arithmetic and geometric sequences both recursively and with an explicit formula; use them to model situations, and translate between the two forms (CCGPS) (MAL1\_D2012-49/MCC9-12.BF.2)

**D – Functions (*continued*)**

- 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; focus on vertical translations of graphs of linear and exponential functions; relate the vertical translation of a linear function to its  $y$ -intercept) (CCGPS) (MAL1\_D2012-50/MCC9-12.BF.3)
- distinguish between situations that can be modeled with linear functions and with exponential functions (CCGPS) (MAL1\_D2012-51/MCC9-12.LE.1)
- prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals (CCGPS) (MAL1\_D2012-52/MCC9-12.LE.1\_a)
- recognize situations in which one quantity changes at a constant rate per unit interval relative to another (CCGPS) (MAL1\_D2012-53/MCC9-12.LE.1\_b)
- recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another (CCGPS) (MAL1\_D2012-54/MCC9-12.LE.1\_c)
- 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) (CCGPS) (MAL1\_D2012-55/MCC9-12.LE.2)
- show using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly (CCGPS) (MAL1\_D2012-56/MCC9-12.LE.3)
- interpret the parameters in a linear or exponential function in terms of a context. (Limit exponential functions to those of the form  $f(a) = b^a + k$ ) (CCGPS) (MAL1\_D2012-57/MCC9-12.LE.5)

**E - Numbers and Quantity**

- use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas (CCGPS) (MAL1\_E2012-58/MCC9-12.Q.1)
- choose and interpret the scale and the origin in graphs and data displays (CCGPS) (MAL1\_E2012-59/MCC9-12.Q.1)
- determine appropriate quantities for the purpose of descriptive modeling (CCGPS) (MAL1\_E2012-60/MCC9-12.Q.2)
- choose a level of accuracy appropriate to limitations on measurement when reporting quantities (CCGPS) (MAL1\_E2012-61/MCC9-12.Q.3)

## Accelerated Algebra I CC

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**A - Algebra**

- interpret expressions that represent a quantity in terms of its context (Emphasis on linear expressions and exponential expressions with integer exponents.) (CCGPS) (MAAC\_A2012-1/MCC9-12.SSE.1)
- interpret parts of an expression such as terms, factors, and coefficients (Emphasis on linear expressions and exponential expressions with integer exponents.) (CCGPS) (MAAC\_A2012-2/MCC9-12.SSE.1\_a)
- interpret complicated expressions by viewing one or more of their parts as a single entity (Emphasis on linear expressions and exponential expressions with integer exponents.) (CCGPS) (MAAC\_A2012-3/MCC9-12.SSE.1\_b)
- create equations and inequalities in one variable and use them to solve problems (Include equations arising from linear and exponential functions) (CCGPS) (MAAC\_A2012-4/MCC9-12.CED.1)
- create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales (Limit to linear and exponential equations and in the case of exponential equations, limit to situations requiring evaluation of exponential functions at integer inputs) (CCGPS) (MAAC\_A2012-5/MCC9-12.CED.2)

## 9th Grade

### A – Algebra (*continued*)

- represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context (Limit to linear equations and inequalities) (CCGPS) (MAAC\_A2012-6/MCC9-12.CED.3)
- rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations (Limit to formulas with a linear focus) (CCGPS) (MAAC\_A2012-7/MCC9-12.CED.4)
- solve linear equations and inequalities in one variable, including equations with coefficients represented by letters (Extend earlier work with solving linear equations to solving linear inequalities in one variable and to solving literal equations that are linear in the variable being solved for. Include simple exponential equations that rely only on application of the laws of exponents, such as  $5^a = 125$  or  $2^a = 1/16$ ) (CCGPS) (MAAC\_A2012-8/MCC9-12.REI.3)
- solve a system of two equations in two variables using elimination and substitution methods (Limit to linear systems) (CCGPS) (MAAC\_A2012-9/MCC9-12.REI.5)
- solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables (CCGPS) (MAAC\_A2012-10/MCC9-12.REI.6)
- demonstrate 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) (CCGPS) (MAAC\_A2012-11/MCC9-12.REI.10)
- 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. (Students should focus on and master linear equations and be able to extend and apply their reasoning to other types of equations in future courses.) (CCGPS) (MAAC\_A2012-12/MCC9-12.REI.1)
- 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 (CCGPS) (MAAC\_A2012-13/MCC9-12.REI.11)
- 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 (CCGPS) (MAAC\_A2012-14/MCC9-12.REI.12)

### B - Statistics and Probability

- create graphical representations of data on a number line (including dot plots, histograms, and box plots) (CCGPS) (MAAC\_B2012-15/MCC9-12.ID.1)
- use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range) of two or more different data sets (CCGPS) (MAAC\_B2012-16/MCC9-12.ID.2)
- interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers) (CCGPS) (MAAC\_B2012-17/MCC9-12.ID.3)
- interpret relative frequencies in context of the data including joint, marginal, and conditional relative frequencies (CCGPS) (MAAC\_B2012-18/MCC9-12.ID.5)
- summarize categorical data for two categories in two-way frequency tables and recognize possible associations and trends in the data (CCGPS) (MAAC\_B2012-19/MCC9-12.ID.5)
- represent data on two quantitative variables on a scatter plot and describe how the variables are related (CCGPS) (MAAC\_B2012-20/MCC9-12.ID.6)
- fit a function to data; use functions fitted to data to solve problems in the context of the data emphasizing linear and exponential models (CCGPS) (MAAC\_B2012-21/MCC9-12.ID.6\_a)
- assess informally the fit of a function by plotting and analyzing residuals (CCGPS) (MAAC\_B2012-22/MCC9-12.ID.6\_b)
- fit a linear function for a scatter plot that suggests a linear association (CCGPS) (MAAC\_B2012-23/MCC9-12.ID.6\_c)
- determine and interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data (CCGPS) (MAAC\_B2012-24/MCC9-12.ID.7)
- compute (using technology) and interpret the correlation coefficient of a linear fit (CCGPS) (MAAC\_B2012-25/MCC9-12.ID.8)

**B - Statistics and Probability (continued)**

- distinguish between correlation and causation in interpreting linear models (CCGPS) (MAAC\_B2012-26/MCC9-12.ID.9)

**C - Geometry**

- use 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 (CCGPS) (MAAC\_C2012-27/MCC9-12.CO.1)
- 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) (CCGPS) (MAAC\_C2012-28/MCC9-12.CO.2)
- employ properties of rectangles, parallelograms, trapezoids, and regular polygons to describe rotations and reflections that map a polygon onto itself (CCGPS) (MAAC\_C2012-29/MCC9-12.CO.3)
- explain, apply and experimentally verify definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments (CCGPS) (MAAC\_C2012-30/MCC9-12.CO.4)
- 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 (CCGPS) (MAAC\_C2012-31/MCC9-12.CO.5)
- 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 (CCGPS) (MAAC\_C2012-32/MCC9-12.CO.6)
- demonstrate that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent using the definition of congruence in terms of rigid motions (CCGPS) (MAAC\_C2012-33/MCC9-12.CO.7)
- explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions (CCGPS) (MAAC\_C2012-34/MCC9-12.CO.8)
- prove theorems about lines and angles to include those regarding vertical angles, parallel lines cut by a transversal, and that points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints (CCGPS) (MAAC\_C2012-35/MCC9-12.CO.9)
- prove theorems about triangles to include sum of the measures of interior angles of a triangle, base angles of an isosceles triangle, midsegment theorem, and centroids (CCGPS) (MAAC\_C2012-36/MCC9-12.CO.10)
- 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) (CCGPS) (MAAC\_C2012-37/MCC9-12.CO.11)
- perform the following constructions using compass and straightedge, appropriate technology or other means: copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment, constructing a line parallel to a given line through a point not on the line (CCGPS) (MAAC\_C2012-38/MCC9-12.CO.12)
- construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle (CCGPS) (MAAC\_C2012-39/MCC9-12.CO.13)
- verify experimentally the properties of dilations given by a center and a scale factor (CCGPS) (MAAC\_C2012-40/MCC9-12.SRT.1)
- recognize that 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 (CCGPS) (MAAC\_C2012-41/MCC9-12.SRT.1\_a)
- recognize that the dilation of a line segment is longer or shorter in the ratio given by the scale factor (CCGPS) (MAAC\_C2012-42/MCC9-12.SRT.1\_b)
- 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 (CCGPS) (MAAC\_C2012-43/MCC9-12.SRT.2)

**C – Geometry (*continued*)**

- apply the properties of similarity transformations to establish the AA criterion for two triangles to be similar (CCGPS) (MAAC\_C2012-44/MCC9-12.SRT.3)
- prove and apply theorems about triangles including a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean theorem proved using triangle similarity (CCGPS) (MAAC\_C2012-45/MCC9-12.SRT.4)
- apply congruence and similarity criteria to solve problems and prove relationships in geometric figures (CCGPS) (MAAC\_C2012-46/MCC9-12.SRT.5)
- demonstrate 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 (CCGPS) (MAAC\_C2012-47/MCC9-12.SRT.6)
- explain and apply relationships between the sine and cosine of complementary angles (CCGPS) (MAAC\_C2012-48/MCC9-12.SRT.7)
- solve application problems using the trigonometric ratios and the Pythagorean theorem (CCGPS) (MAAC\_C2012-49/MCC9-12.SRT.8)
- prove that all circles are similar (CCGPS) (MAAC\_C2012-50/MCC9-12.C.1)
- 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) (CCGPS) (MAAC\_C2012-51/MCC9-12.C.2)
- construct the inscribed and circumscribed circles of a triangle (CCGPS) (MAAC\_C2012-52/MCC9-12.C.3)
- prove properties of angles for a quadrilateral inscribed in a circle (CCGPS) (MAAC\_C2012-53/MCC9-12.C.3)
- construct a tangent line from a point outside a given circle to the circle (CCGPS) (MAAC\_C2012-54/MCC9-12.C.4)
- derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius (CCGPS) (MAAC\_C2012-55/MCC9-12.C.5)
- define the radian measure of an angle as the constant of proportionality of the length of an intercepted arc and the radius of the circle (CCGPS) (MAAC\_C2012-56/MCC9-12.C.5)
- derive the formula for the area of a sector (CCGPS) (MAAC\_C2012-57/MCC9-12.C.5)
- prove simple geometric theorems algebraically using coordinates (CCGPS) (MAAC\_C2012-58/MCC9-12.GPE.4)
- 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) (CCGPS) (MAAC\_C2012-59/MCC9-12.GPE.5)
- determine the point on a line segment between two given points that divides the segment in a given ratio (CCGPS) (MAAC\_C2012-60/MCC9-12.GPE.6)
- compute perimeters of polygons and areas of triangles and rectangles using coordinates including the use of the distance formula (CCGPS) (MAAC\_C2012-61/MCC9-12.GPE.7)
- explain informally the formulas for circumference and area of a circle, volume of a cylinder, pyramid and cone, using dissection arguments, Cavalieri’s principle, and informal limit arguments (CCGPS) (MAAC\_C2012-62/MCC9-12.GMD.1)
- explain informally Cavalieri’s principle for the formulas for the volume of a sphere and other solid figures (CCGPS) (MAAC\_C2012-63/MCC9-12.GMD.2)
- use volume formulas for cylinders, pyramids, cones, and spheres to solve problems (CCGPS) (MAAC\_C2012-64/MCC9-12.GMD.3)

**D - Functions**

- 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 (e.g., 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  $y = f(x)$ ). (Draw examples from linear and exponential functions.)] (CCGPS) (MAAC\_D2012-65/MCC9-12.IF.1)
- evaluate functions for inputs in their domains using function notation and interpret statements that use function notation in terms of a context (Draw examples from linear and exponential functions) (CCGPS) (MAAC\_D2012-66/MCC9-12.IF.2)

**D – Functions (*continued*)**

- recognize sequences both explicit and recursive as functions with domains that are whole numbers (e.g., the Fibonacci sequence is defined recursively by  $f(0) = f(1) = 1$ ,  $f(n+1) = f(n) + f(n-1)$  for  $n > 1$ ; draw connection to F.BF.2, which requires students to write arithmetic and geometric sequences) (CCGPS) (MAAC\_D2012-67/MCC9-12.IF.3)
- interpret key features of graphs and tables for a function that models a relationship between two quantities in terms of the quantities for a function that models a relationship between two 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) (Focus on linear and exponential functions.)] (CCGPS) (MAAC\_D2012-68/MCC9-12.IF.4)
- relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes (Focus on linear and exponential functions.) (CCGPS) (MAAC\_D2012-69/MCC9-12.IF.5)
- 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 (Focus on linear functions and intervals for exponential functions whose domain is a subset of the integers) (CCGPS) (MAAC\_D2012-70/MCC9-12.IF.6)
- graph functions expressed symbolically and show key features of the graph by hand in simple cases and using technology for more complicated cases (Focus on linear and exponential functions. Include comparisons of two functions presented algebraically) (CCGPS) (MAAC\_D2012-71/MCC9-12.IF.7)
- graph linear functions and show intercepts, maxima, and minima (CCGPS) (MAAC\_D2012-72/MCC9-12.IF.7\_a)
- graph exponential functions showing intercepts and end behavior (CCGPS) (MAAC\_D2012-73/MCC9-12.IF.7\_e)
- compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions) (e.g., given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum) (CCGPS) (MAAC\_D2012-74/MCC9-12.IF.9)
- write a function that describes a relationship between two quantities (Limit to linear and exponential functions.) (CCGPS) (MAAC\_D2012-75/MCC9-12.BF.1)
- determine an explicit expression, a recursive process, or steps for calculation from a context (Limit to linear and exponential functions.) (CCGPS) (MAAC\_D2012-76/MCC9-12.BF.1\_a)
- combine standard function types using arithmetic operations (Limit to linear and exponential functions.) (CCGPS) (MAAC\_D2012-77/MCC9-12.BF.1\_b)
- write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms (CCGPS) (MAAC\_D2012-78/MCC9-12.BF.2)
- 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. Focus on vertical translations of graphs of linear and exponential functions. Relate the vertical translation of a linear function to its  $y$ -intercept.) (CCGPS) (MAAC\_D2012-79/MCC9-12.BF.3)
- distinguish between situations that can be modeled with linear functions and with exponential functions (CCGPS) (MAAC\_D2012-80/MCC9-12.LE.1)
- prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals (CCGPS) (MAAC\_D2012-81/MCC9-12.LE.1\_a)
- recognize situations in which one quantity changes at a constant rate per unit interval relative to another (CCGPS) (MAAC\_D2012-82/MCC9-12.LE.1\_b)
- recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another (CCGPS) (MAAC\_D2012-83/MCC9-12.LE.1\_c)
- 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) (CCGPS) (MAAC\_D2012-84/MCC9-12.LE.2)
- show using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly (CCGPS) (MAAC\_D2012-85/MCC9-12.LE.3)
- interpret the parameters in a linear or exponential function in terms of a context (Limit exponential functions to those of the form  $f(a) = b^a + k$ ) (CCGPS) (MAAC\_D2012-86/MCC9-12.LE.5)

### **E - Numbers and Quantity**

- use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas (CCGPS) (MAAC\_E2012-87/MCC9-12.Q.1)
- choose and interpret the scale and the origin in graphs and data displays (CCGPS) (MAAC\_E2012-88/MCC9-12.Q.1)
- determine appropriate quantities for the purpose of descriptive modeling (CCGPS) (MAAC\_E2012-89/MCC9-12.Q.2)
- choose a level of accuracy appropriate to limitations on measurement when reporting quantities (CCGPS) (MAAC\_E2012-90/MCC9-12.Q.3)

## **Biology**

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### **A - Characteristics of Science**

- design and conduct scientific investigations (GPS, HSGT, ACT) (SCBI\_A2005-1)
- apply standard safety practices for all classroom laboratory and field investigations (GPS, HSGT) (SCBI\_A2005-2)
- use technology to collect, observe, measure, and manipulate data and findings (GPS, HSGT, ACT) (SCBI\_A2005-3)
- use valid critical assumptions to draw conclusions (GPS, HSGT, ACT) (SCBI\_A2005-4)
- apply computation and skills necessary for analyzing data and developing conclusions (GPS, HSGT) (SCBI\_A2005-5)
- communicate scientific investigations clearly (GPS, HSGT) (SCBI\_A2005-6)
- read scientific materials to establish context for subject matter, develop vocabulary, and to be aware of current research (GPS, HSGT) (SCBI\_A2005-7)
- discuss the importance of curiosity, honesty, openness, and skepticism in science and exhibit these traits in efforts to understand how the world works (GPS) (SCBI\_A2006-1)

### **B - Academic Knowledge**

- analyze the relationship between structures and functions in living cells (GPS, HSGT) (SCBI\_B2005-8)
- analyze how biological traits are passed on to successive generations (GPS, HSGT) (SCBI\_B2005-9)
- examine the relationship between unicellular and multicellular organisms and the increasing complexity of systems (GPS, HSGT) (SCBI\_B2005-10)
- evaluate the dependence of all organisms on one another and the flow of energy and matter within their ecosystems (GPS, HSGT, CE) (SCBI\_B2005-11)
- evaluate the role of natural selection in the development of the theory of evolution (GPS, HSGT) (SCBI\_B2005-12)

## **World Geography**

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### **A - Map and Globe Skills**

- use cardinal directions (GPS) (SSWG\_A2007-1)
- use intermediate directions (GPS) (SSWG\_A2007-2)
- use a letter/number grid system to determine location (GPS) (SSWG\_A2007-3)
- compare and contrast the categories of natural, cultural, and political features found on maps (GPS) (SSWG\_A2007-4)
- use customary and metric map scales to determine distance on a map (GPS) (SSWG\_A2007-5)
- use map key/legend to acquire information from historical, physical, political, resource, product, and economic maps (GPS) (SSWG\_A2007-6)
- use a map to explain the impact of geography on historical and current events (GPS) (SSWG\_A2007-7)
- draw conclusions and make generalizations based on information from maps (GPS) (SSWG\_A2007-8)
- use latitude and longitude to determine location (GPS) (SSWG\_A2007-9)

**A - Map and Globe Skills (*continued*)**

- use graphic scales to determine distances on a map (GPS) (SSWG\_A2007-10)
- compare maps of the same place at different points in time and from different perspectives to determine changes, identify trends, and generalize about human activities (GPS) (SSWG\_A2007-11)
- compare maps with data sets (charts, tables, graphs) and/or readings to draw conclusions and make generalizations (GPS) (SSWG\_A2007-12)

**B - Information Processing Skills**

- compare similarities and differences (GPS) (SSWG\_B2007-13)
- organize items chronologically (GPS) (SSWG\_B2007-14)
- identify issues and/or problems and alternative solutions (GPS) (SSWG\_B2007-15)
- distinguish between fact and opinion (GPS) (SSWG\_B2007-16)
- identify main idea, detail, sequence of events, and cause and effect in a social studies context (GPS) (SSWG\_B2007-17)
- identify and use primary and secondary sources (GPS) (SSWG\_B2007-18)
- interpret timelines (GPS) (SSWG\_B2007-19)
- identify social studies reference resources to use for a specific purpose (GPS) (SSWG\_B2007-20)
- construct charts and tables (GPS) (SSWG\_B2007-21)
- analyze artifacts (GPS) (SSWG\_B2007-22)
- draw conclusions and make generalizations (GPS) (SSWG\_B2007-23)
- analyze graphs and diagrams (GPS) (SSWG\_B2007-24)
- translate dates into centuries, eras, or ages (GPS) (SSWG\_B2007-25)
- formulate appropriate research questions (GPS) (SSWG\_B2007-26)
- determine adequacy and/or relevancy of information (GPS) (SSWG\_B2007-27)
- check for consistency of information (GPS) (SSWG\_B2007-28)
- interpret political cartoons (GPS) (SSWG\_B2007-29)

**C - Physical Geography**

- explain the physical aspects of geography (GPS) (SSWG\_C2007-30)

**D - Cultural Geography**

- explain the cultural aspects of geography (GPS) (SSWG\_D2007-31)

**E - Elements of Geography**

- apply the six essential elements of geography: the world in spatial terms, places and regions, physical systems, human systems, environment and society, and the uses of geography (GPS) (SSWG\_E2007-32)

**F - Interaction of Physical and Human Systems**

- describe the interaction of physical and human systems that have shaped contemporary North Africa, Southwest Asia, and Central Asia (GPS) (SSWG\_F2007-33)
- describe the interaction of physical and human systems that have shaped contemporary Sub-Saharan Africa (GPS) (SSWG\_F2007-34)
- describe the interaction of physical and human systems that have shaped contemporary South Asia, Southeastern Asia, and Eastern Asia (GPS) (SSWG\_F2007-35)
- describe the interaction of physical and human systems that have shaped contemporary Europe (GPS) (SSWG\_F2007-36)
- describe the interaction of physical and human systems that have shaped contemporary Latin America (GPS) (SSWG\_F2007-37)
- describe the interaction of physical and human systems that have shaped contemporary Canada and the United States (GPS) (SSWG\_F2007-38)
- describe the interaction of physical and human systems that have shaped contemporary Oceania, including Australia, New Zealand, and Antarctica (GPS) (SSWG\_F2007-39)



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