



AKS

ACADEMIC KNOWLEDGE AND SKILLS
GWINNETT COUNTY PUBLIC SCHOOLS

5TH GRADE

2014–15 COMPLETE AKS

Gwinnett's curriculum for grades K–12 is called the Academic Knowledge and Skills (AKS) and is aligned to the state-adopted Common Core Georgia Performance Standards (CCGPS) in Language Arts and Mathematics for elementary school students. Gwinnett's AKS is a rigorous curriculum that prepares students for college and 21st century careers in a globally competitive future. The AKS for each grade level spell out the essential things students are expected to know and be able to do in that grade or subject. The AKS offer a solid base on which teachers build rich learning experiences. Teachers use curriculum guides, textbooks, technology, and other resources to teach the AKS and to make sure every student is learning to his or her potential.

The Academic Knowledge and Skills (AKS) were developed by our teachers, with input from our parents and community, in response to Gwinnett County Public Schools' mission statement:

The mission of Gwinnett County Public Schools is to pursue excellence in academic knowledge, skills, and behavior for each student resulting in measured improvement against local, national, and world-class standards.

In this booklet, you will find a complete list of the AKS for 5th grade. We encourage you to talk to your child about what he or she is learning.

WELCOME TO 5TH GRADE!



About the Academic Knowledge and Skills (AKS) Curriculum

The AKS is Gwinnett’s custom, Board-approved curriculum that spells out the essential things students are expected to know and be able to do for each subject at each grade level. Because the AKS details exactly what a student is expected to learn, teachers can tailor the classroom experience to meet individual needs. Gwinnett’s AKS is a rigorous curriculum that sets a strong foundation, building year by year to prepare students for college and 21st century careers in a globally competitive future. The AKS includes all of the state’s standards, including the state-adopted Common Core Georgia Performance Standards (CCGPS) in the areas of Mathematics and Language Arts for elementary students. The Georgia Performance Standards (GPS) are in place in other content areas. The alignment of the AKS with standardized assessments ensures that Gwinnett students are well prepared for these measures of achievement. The AKS curriculum is aligned with state-mandated standards, assuring that students are prepared for state tests in core subjects for grades 3–5, part of the new Georgia Milestones Assessment System (GMAS).

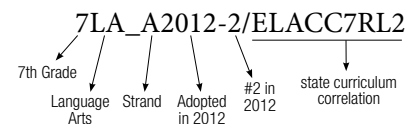
Since its inception in 1996, the AKS has reflected the collective wisdom of thousands of educators and community members who worked together to determine what students need to know and be able to do in order to be successful at the next grade level and in the future. This investment by GCPS’ stakeholders 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 committee, recommendations are submitted to the superintendent for approval by the School Board, with implementation the following school year.

About Testing in 5th Grade

Gwinnett County Public Schools measures student achievement in a number of ways to ensure students are learning the curriculum. Our assessment program helps teachers monitor students’ academic progress. Assessment data and information pinpoints students’ strengths and weaknesses. This focus allows teachers to plan targeted instruction that promotes each student’s success. All 5th grade students participate in the Cognitive Abilities Test (CogAT) assessment and the Iowa Tests of Basic Skills (ITBS) in the fall. CogAT provides information related to skills that are important for learning and problem-solving, both in and out of school. This test gives teachers details on how students learn so that teachers can develop appropriate learning objectives for each child. The ITBS is a national, norm-referenced test that provides information on student achievement, based on common knowledge and skills. Norm-referenced tests allow scores to be compared to other students who took the same test following the same testing procedures. This test identifies strengths and weaknesses in basic skills so teachers can provide support. The Georgia Department of Education has released preliminary information regarding the new, comprehensive state assessment program. The Georgia Milestones Assessment System (GMAS) will include end-of-grade assessments in grades 3–8 in Language Arts, Mathematics, Science, and Social Studies. Learn more about testing on the GCPS website, or talk to your student’s teacher.

Notes about this Booklet

- Correlations to the following state-required curriculum standards/objectives are indicated for respective Academic Knowledge and Skills: Common Core Georgia Performance Standards (CCGPS) and Georgia Performance Standards (GPS).
- Correlations to the state-required Iowa Tests of Basic Skills (ITBS) are noted for grades 3 and 5.
- 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 book includes the AKS for 5th grade. AKS booklets are available for other grade levels (K–8 and combined grades for high school) and by core academic subject (Language Arts, Mathematics, Science, and Social Studies). In addition, comprehensive books include the AKS for all elementary school grade levels as well as the AKS in middle grades (6–8) and for high school (9–12). These booklets are posted in PDF form on the district website. Go to www.gwinnett.k12.ga.us. From the pull-down menu on the left, select “I want to... Get a copy of... The AKS.”
- 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 adopted, its number in the year of adoption, and state curriculum correlation.



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

Parent Involvement

Research shows that when parents are involved in their children's education at home, their children do better in school. When parents are involved at school, their children's achievement increases and the schools they attend become even stronger. Be There is a national movement that inspires parents to become more involved in their child's education and their public schools. Teachable moments are everywhere. You can be your child's favorite teacher by connecting in meaningful ways as you go through the ordinary routines of the day... driving in the car, preparing a meal, shopping, or doing chores. Below and in your child's AKS brochure, you will find tips for helping your child have a successful 5th grade experience. Look for more helpful tipsheets and other resources on the school system website and your local school website.



Suggestions for Helping Your Child Achieve Academically

The school system encourages parents to be an active part of their child's education. The following are just a few ways you can be involved:

- **Review the AKS** for your child's grade. You also can access the AKS on the system's website— www.gwinnett.k12.ga.us.
- **Ask to see your child's work.**
- **Support your child** and communicate that his or her academic success is important to you.
- **Read and write with your child often.** Remind students to edit the entire sentence and paragraph when they write and to use complete sentences with appropriate grammar and spelling.
- **Ask children to show their work** in their assignments, making sure they answer the question asked, not just provide information that may or may not be relevant.
- **Participate in parent-teacher conferences.**

Share these Keys to School Success with Your Child

- ☞ **Be prepared each day.** Have the needed materials and assignments for each class.
- ☞ **Stay organized.** Keep your desk, notebooks, book bag, and home study area neatly arranged.
- ☞ **Use an agenda book or calendar** to keep track of assignments and due dates. Check it every day.
- ☞ **Give your best effort** to both homework and in-class assignments. Complete assignments and turn them in on time.
- ☞ **Review your work** from each class every evening, even if you don't have a homework assignment due the next day.
- ☞ **Study** for every test and quiz.
- ☞ **Ask your teacher questions** if you do not understand a lesson or an assignment.
- ☞ **Get involved** in at least one extracurricular activity.

Language Arts

(Reference Code: 5LA)

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 (i.e., 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 (i.e., 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)
- demonstrate understanding of figurative language, word relationships, and nuances in word meanings (CCGPS) (5LA_F2012-42/ELACC5L5)
- 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/ELACC5L6)

Mathematics

(Reference Code: 5MA)

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)
- generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane (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. Explain informally why this is so) (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)
- use place value understanding to round decimals to any place (CCGPS) (5MA_B2012-8/MCC5.NBT.4)
- multiply multi-digit whole numbers fluently using the standard algorithm (CCGPS) (5MA_B2012-9/MCC5.NBT.5)
- find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models (CCGPS) (5MA_B2012-10/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; relate the strategy to a written method and explain the reasoning used (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)
- solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (e.g., by using visual fraction models or equations to represent the problem; use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers (e.g., recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$) (CCGPS) (5MA_C2012-14/MCC5.NF.2)
- interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem (e.g., interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?) (CCGPS) (5MA_C2012-16/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 $a \times q \div b$ (e.g., use a visual fraction model to show $(2/3) \times 4 = 8/3$ and create a story context for this equation; do the same with $(2/3) \times (4/5) = 8/15$) (In general, $(a/b) \times (c/d) = ac/bd$) (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. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas (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 $(1/3) \div 4$ and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$) (CCGPS) (5MA_C2012-25/MCC5.NF.7_a)
- apply and extend previous understanding of division to interpret the quotient of a whole number by a unit fraction and compute such quotients (e.g., create a story context for $4 \div (1/5)$ and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$) (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 $1/2$ lb of chocolate equally? How many $1/3$ -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, e.g., given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally (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/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 improvised units (CCGPS) (5MA_D2012-32/MCC5.MD.4)
- 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 and represent threefold number products as volumes; associative property (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)

Science

(Reference Code: 5SC)

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

(Reference Code: 5SS)

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)
- 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 (e.g., 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)
- 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)

General Music

(Reference Code: 5GM)

A - Skills and Techniques/Performance

- sing, alone and with others, a varied repertoire of music (GPS) (5GM_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (5GM_A2011-2)
- read and notate music (GPS) (5GM_A2011-3)

B - Creative Expression and Communication

- improvise melodies, variations, and accompaniments (GPS) (5GM_B2011-4)
- compose and arrange music within specified guidelines (GPS) (5GM_B2011-5)

C - Critical Analysis/Investigation

- listen to, analyze, and describe music (GPS) (5GM_C2011-6)
- evaluate music and music performances (GPS) (5GM_C2011-7)

D - Cultural and Historical Context

- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (5GM_D2011-8)
- understand music in relation to history and culture (GPS) (5GM_D2011-9)
- move, alone and with others, to a varied repertoire of music (GPS) (5GM_D2011-10)

Health

(Reference Code: 5HE)

A - First Aid

- explain proper first aid procedures for a variety of emergencies (GPS) (5HE_A2009-1)

B - Safety

- identify threats to personal safety and list local support systems (GPS) (5HE_B2009-2)

C - Personal Care

- explain the role of risk factors and lifestyle choices in the development or prevention of health problems (GPS) (5HE_C2009-3)
- develop strategies and skills used to promote an adequate level of personal hygiene appropriate for the onset of puberty (GPS) (5HE_C2009-4)

D - Disease Prevention

- describe how the healthy body combats disease and illness (GPS) (5HE_D2009-5)

E - Tobacco, Alcohol, and Other Drugs

- discuss and practice refusal skills necessary to resist peer pressure (GPS) (5HE_E2009-6)
- examine the effects and consequences of tobacco, alcohol, and other drug use (GPS) (5HE_E2009-7)
- critique the ways various forms of media portray drug use (GPS) (5HE_E2009-8)
- locate sources of help for individuals with alcohol, tobacco, and other drug use problems (GPS) (5HE_E2009-9)

F - Nutrition

- interpret and utilize food label information to make healthy choices (GPS) (5HE_F2009-10)

G - Emotional Expression/Mental Health

- identify ways to manage stress and adjust to change (GPS) (5HE_G2009-11)

H - Family Life

- describe the physical, emotional, and social changes that occur during puberty (GPS) (5HE_H2009-12)

I - Applied Anatomy and Physiology

- identify the parts and major functions of the endocrine/immune system (GPS) (5HE_I2009-13)

Physical Education

(Reference Code: 5PE)

A - Fitness

- participate in health-enhancing fitness activities (GPS) (5PE_A2009-1)
- demonstrate progress toward meeting health-related fitness standards as defined by research (GPS) (5PE_A2009-2)

B - Motor Skills and Movement Patterns

- design and perform sequences of locomotor and non-locomotor movements (GPS) (5PE_B2009-3)
- create and demonstrate a sequence of balances utilizing counter balance and counter tensions (GPS) (5PE_B2009-4)
- utilize throwing and catching in a small group game (GPS) (5PE_B2009-5)
- design and perform sequences involving rolling and other skills utilizing equipment or apparatus (GPS) (5PE_B2009-6)
- utilize striking, dribbling, and volleying skills in game-like situations (GPS) (5PE_B2009-7)
- utilize striking with implements in a game-like situation (GPS) (5PE_B2009-8)
- design and refine a repeatable routine with a partner or small group, using various jumping skills with or without equipment (GPS) (5PE_B2009-9)

C - Movement Concepts and Principles

- identify and use the concepts of spatial awareness as they relate to strategies in game-like situations (GPS) (5PE_C2009-10)
- create complex rhythmic and aerobic activities (GPS) (5PE_C2009-11)

D - Personal and Social Behavior

- demonstrate and identify specific safety practices, rules, procedures, and etiquette for activities (GPS) (5PE_D2009-12)

Visual Arts

(Reference Code: 5VA)

A - Meaning and Idea/Creative Thinking

- engage in the creative process to generate and visualize ideas (GPS) (5VA_A2011-1)
- formulate personal responses to visual imagery (GPS) (5VA_A2011-2)
- select and use subject matter, symbols, and/or ideas to communicate meaning (GPS) (5VA_A2011-3)

B - Contextual Understanding

- investigate and discover the personal relationship of the artist to the community, culture, and world through the study and creation of art (GPS) (5VA_B2011-4)
- view, discuss, and critique selected artworks (GPS) (5VA_B2011-5)

C - Production

- create artworks based on personal experience and selected themes (GPS) (5VA_C2011-6)
- explore and apply media, techniques, and processes of two-dimensional art processes (e.g., drawing, painting, printmaking, mixed-media), using tools and materials in a safe and appropriate manner to develop skills (GPS) (5VA_C2011-7)
- explore and apply media, techniques, and processes of three-dimensional works of art (e.g., ceramics, sculpture, crafts, and mixed-media), using tools and materials in a safe and appropriate manner to develop skills (GPS) (5VA_C2011-8)
- plan and participate in appropriate exhibition(s) of artworks (GPS) (5VA_C2011-9)

D - Assessment and Reflection

- explore and discuss art portfolios (GPS) (5VA_D2011-10)
- utilize a variety of approaches to understand and critique works of art (GPS) (5VA_D2011-11)
- explain how selected elements and principles of design are used in an artwork to convey meaning (GPS) (5VA_D2011-12)

E - Connections

- apply information and processes from other disciplines to enhance the understanding and production of artworks (GPS) (5VA_E2011-13)
- develop life skills through the study and production of art (GPS) (5VA_E2011-14)

Modern Languages - Level A

(Reference Code: EMLA)

A - Basic Oral and Listening Communication

- use common greetings and expressions (GPS) (EMLA_A2009-1)
- respond to classroom instruction and directions (GPS) (EMLA_A2009-2)
- explore feelings and emotions (GPS) (EMLA_A2009-3)
- explore likes and dislikes (GPS) (EMLA_A2009-4)

B - Vocabulary Development

- recognize and use the alphabet (GPS) (EMLA_B2009-5)
- recognize and count numerals (GPS) (EMLA_B2009-6)
- recognize and name selected colors (GPS) (EMLA_B2009-7)
- recognize and name selected shapes (GPS) (EMLA_B2009-8)
- recognize and name days of the week and months of the year (GPS) (EMLA_B2009-9)
- recognize and name seasons and basic weather vocabulary (GPS) (EMLA_B2009-10)
- recognize and name classroom objects (GPS) (EMLA_B2009-11)
- recognize and name immediate family members (GPS) (EMLA_B2009-12)
- recognize and name selected articles of clothing (GPS) (EMLA_B2009-13)
- recognize and name selected parts of the body (GPS) (EMLA_B2009-14)
- recognize and name rooms in the house (GPS) (EMLA_B2009-15)
- recognize and name selected foods and beverages (GPS) (EMLA_B2009-16)
- recognize and name selected animals (GPS) (EMLA_B2009-17)

C - Culture

- name countries where the target language is spoken (GPS) (EMLA_C2009-18)
- explore holidays and traditional celebrations of the target language cultures (GPS) (EMLA_C2009-19)
- explore significant people from the target language cultures (GPS) (EMLA_C2009-20)

D - Connections, Comparisons, and Communities

- explore connections to student learning in other subject areas (GPS) (EMLA_D2009-21)
- explore and compare basic language features (GPS) (EMLA_D2009-22)
- explore comparisons of the target culture(s) with the students' culture (GPS) (EMLA_D2009-23)
- explore where students can encounter the target language beyond the classroom setting (GPS) (EMLA_D2009-24)

Modern Languages - Level B

(Reference Code: EMLB)

A - Basic Communication

- comprehend and respond appropriately to greetings, farewells, and basic social situations (GPS) (EMLB_A2009-1)
- respond to classroom instruction and directions (GPS) (EMLB_A2009-2)
- express feelings and emotions (GPS) (EMLB_A2009-3)
- express likes and dislikes (GPS) (EMLB_A2009-4)
- count, identify, and manipulate numbers (GPS) (EMLB_A2009-5)
- integrate alphabet into a variety of activities (GPS) (EMLB_A2009-6)
- recognize, name, and sequence days of the week and months of the year (GPS) (EMLB_A2009-7)
- use basic weather vocabulary and organize the months of the year by season (GPS) (EMLB_A2009-8)
- identify and describe immediate and extended family members (GPS) (EMLB_A2009-9)
- identify and use phrases to describe clothing (GPS) (EMLB_A2009-10)
- recognize time by hour, half-hour, quarter-hour, and digital format (GPS) (EMLB_A2009-11)
- identify selected parts of the body (GPS) (EMLB_A2009-12)
- identify and describe classroom objects and their uses (GPS) (EMLB_A2009-13)
- identify rooms of a house and basic furniture (GPS) (EMLB_A2009-14)

A - Basic Communication (*continued*)

- identify, classify, and describe various food and beverages (GPS) (EMLB_A2009-15)
- identify household pets, domestic, farm, and zoo animals (GPS) (EMLB_A2009-16)
- identify means of transportation (GPS) (EMLB_A2009-17)
- identify selected professions and places in the community (GPS) (EMLB_A2009-18)

B - Culture

- locate and name target language countries on a map or globe (GPS) (EMLB_B2009-19)
- identify holidays and traditional celebrations of the target language cultures (GPS) (EMLB_B2009-20)
- explore similarities and differences among a variety of cultures (GPS) (EMLB_B2009-21)
- explore national symbols and features of target language countries (GPS) (EMLB_B2009-22)
- identify significant people from the target language cultures (GPS) (EMLB_B2009-23)

C - Connections, Comparisons, and Communities

- identify connections to student learning in other subject areas (GPS) (EMLB_C2009-24)
- identify and compare basic language features (GPS) (EMLB_C2009-25)
- identify comparisons of the target culture(s) with the students' culture (GPS) (EMLB_C2009-26)
- identify where students can encounter the target language beyond the classroom setting (GPS) (EMLB_C2009-27)

Modern Languages - Level C

(Reference Code: EMLC)

A - Basic Communication

- use common courtesy expressions in a variety of social situations (GPS) (EMLC_A2009-1)
- respond to classroom instruction and directions (GPS) (EMLC_A2009-2)
- describe a variety of emotions and feelings (GPS) (EMLC_A2009-3)
- describe likes and dislikes (GPS) (EMLC_A2009-4)
- perform simple math operations (GPS) (EMLC_A2009-5)
- manipulate common sequences such as alphabet, calendar, and seasons (GPS) (EMLC_A2009-6)
- classify and describe vocabulary related to food, clothing, weather, family, animals, home, transportation, and sports (GPS) (EMLC_A2009-7)
- recognize and use time by hour, half-hour, quarter-hour and digital format (GPS) (EMLC_A2009-8)
- read and comprehend short narratives and passages (GPS) (EMLC_A2009-9)
- construct simple sentences and short narratives (GPS) (EMLC_A2009-10)

B - Culture

- locate and name target language countries on a map or globe (GPS) (EMLC_B2009-11)
- name and describe holidays and traditional celebrations of the target language cultures (GPS) (EMLC_B2009-12)
- compare and contrast similarities and differences among a variety of cultures (GPS) (EMLC_B2009-13)
- describe national symbols and features of target language countries (GPS) (EMLC_B2009-14)
- identify and research an area of interest pertaining to the target language and/or culture (GPS) (EMLC_B2009-15)

C - Connections, Comparisons, and Communities

- identify connections to student learning in other subject areas (GPS) (EMLC_C2009-16)
- identify and compare basic language features (GPS) (EMLC_C2009-17)
- identify comparisons of the target culture(s) with the students' culture (GPS) (EMLC_C2009-18)
- identify where students can encounter the target language beyond the classroom setting (GPS) (EMLC_C2009-19)



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