# AKS

ACADEMIC KNOWLEDGE AND SKILLS
GWINNETT COUNTY PUBLIC SCHOOLS

# 4TH 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 4th grade. We encourage you to talk to your child about what he or she is learning.**

**WELCOME TO 4TH GRADE!**

GWINNETT COUNTY PUBLIC SCHOOLS

## 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 4th 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. 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 child'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 4th 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:

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| courage | respect for others | self-control | generosity | respect for environment | creativity |
| patriotism | cooperation | courtesy | punctuality | respect for creator | sportsmanship |
| citizenship | kindness | compassion | cleanliness | patience | loyalty |
| honesty | self-respect | tolerance | cheerfulness | | perseverance |
| fairness | | diligence | school pride | | 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 4th 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: 4LA)

**A - Reading: Literature**

- refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text (CCGPS) (4LA_A2012-1/ELACC4RL1)
- determine a theme of a story, drama, or poem from details in the text; summarize the text (CCGPS) (4LA_A2012-2/ELACC4RL2)
- describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions) (CCGPS) (4LA_A2012-3/ELACC4RL3)
- determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean) (CCGPS) (4LA_A2012-4/ELACC4RL4)
- explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text (CCGPS) (4LA_A2012-5/ELACC4RL5)
- compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations (CCGPS) (4LA_A2012-6/ELACC4RL6)
- make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text (CCGPS) (4LA_A2012-7/ELACC4RL7)
- compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures (CCGPS) (4LA_A2012-8/ELACC4RL9)
- read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range by the end of grade 4 (CCGPS) (4LA_A2012-9/ELACC4RL10)

**B - Reading: Informational Text**

- refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text (CCGPS) (4LA_B2012-10/ELACC4RI1)
- determine the main idea of a text and explain how it is supported by key details; summarize the text (CCGPS) (4LA_B2012-11/ELACC4RI2)
- explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text (CCGPS) (4LA_B2012-12/ELACC4RI3)
- determine the meaning of general academic language and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area (CCGPS) (4LA_B2012-13/ELACC4RI4)
- describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text (CCGPS) (4LA_B2012-14/ELACC4RI5)
- compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided (CCGPS) (4LA_B2012-15/ELACC4RI6)
- interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on web pages) and explain how the information contributes to an understanding of the text in which it appears (CCGPS) (4LA_B2012-16/ELACC4RI7)
- explain how an author uses reasons and evidence to support particular points in a text (CCGPS) (4LA_B2012-17/ELACC4RI8)
- integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably (CCGPS) (4LA_B2012-18/ELACC4RI9)
- read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range by the end of grade 4 (CCGPS) (4LA_B2012-19/ELACC4RI10)

**C - Reading: Foundational Skills**

- know and apply grade-level phonics and word analysis skills in decoding words (CCGPS) (4LA_C2012-20/ELACC4RF3)
- read with sufficient accuracy and fluency to support comprehension (CCGPS) (4LA_C2012-21/ELACC4RF4)

**D - Writing**

- write opinion pieces on topics or texts, supporting a point of view with reasons and information (CCGPS) (4LA_D2012-22/ELACC4W1)
- write informative/explanatory texts to examine a topic and convey ideas and information clearly (CCGPS) (4LA_D2012-23/ELACC4W2)
- write narratives to develop real or imagined experiences or events, using effective technique, descriptive details, and clear event sequences (CCGPS) (4LA_D2012-24/ELACC4W3)
- produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience (CCGPS) (4LA_D2012-25/ELACC4W4)
- develop and strengthen writing as needed by planning, revising, and editing, with guidance and support from peers and adults (CCGPS) (4LA_D2012-26/ELACC4W5)
- use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting, with some guidance and support from adults (CCGPS) (4LA_D2012-27/ELACC4W6)
- conduct short research projects that build knowledge through investigation of different aspects of a topic (CCGPS) (4LA_D2012-28/ELACC4W7)
- recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources (CCGPS) (4LA_D2012-29/ELACC4W8)
- draw evidence from literary or informational texts to support analysis, reflection, and research (CCGPS) (4LA_D2012-30/ELACC4W9)
- 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) (4LA_D2012-31/ELACC4W10)

**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 4 topics and texts, building on others' ideas and expressing their own clearly (CCGPS) (4LA_E2012-32/ELACC4SL1)
- paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally (CCGPS) (4LA_E2012-33/ELACC4SL2)
- identify the reasons and evidence a speaker provides to support particular points (CCGPS) (4LA_E2012-34/ELACC4SL3)
- report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace (CCGPS) (4LA_E2012-35/ELACC4SL4)
- add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes (CCGPS) (4LA_E2012-36/ELACC4SL5)
- differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation (CCGPS) (4LA_E2012-37/ELACC4SL6)

**F - Language**

- demonstrate command of the conventions of standard English grammar and usage when writing or speaking (CCGPS) (4LA_F2012-38/ELACC4L1)
- demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing (CCGPS) (4LA_F2012-39/ELACC4L2)
- use knowledge of language and its conventions when writing, speaking, reading, or listening (CCGPS) (4LA_F2012-40/ELACC4L3)
- determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies (CCGPS) (4LA_F2012-41/ELACC4L4)
- demonstrate understanding of figurative language, word relationships, and nuances in word meanings (CCGPS) (4LA_F2012-42/ELACC4L5)
- acquire and use accurately grade-appropriate general academic and domain-specific vocabulary, including words and phrases that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and words and phrases basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation) (CCGPS) (4LA_F2012-43/ELACC4L6)

# Mathematics

(Reference Code: 4MA)

**A - Operations and Algebraic Thinking**

- explain a multiplication equation as a comparison and represent verbal statements of multiplicative comparisons as multiplication equations (e.g., interpret 35 = 5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5) (CCGPS) (4MA_A2012-1/MCC4.OA.1)
- solve multiplication and division word problems involving multiplicative comparison using drawings and equations (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison) (CCGPS) (4MA_A2012-2/MCC4.OA.2)
- solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies, including rounding (CCGPS) (4MA_A2012-3/MCC4.OA.3)
- find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite (CCGPS) (4MA_A2012-6/MCC4.OA.4)
- generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself (e.g., given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way) (CCGPS) (4MA_A2012-8/MCC4.OA.5)

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

- explain that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right (e.g., recognize that 700 ÷ 70 = 10 by applying concepts of place value and division) (CCGPS) (4MA_B2012-9/MCC4.NBT.1)
- read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons (CCGPS) (4MA_B2012-10/MCC4.NBT.2)
- use place value understanding to round whole numbers to any place using tools such as a number line and/or charts (CCGPS) (4MA_B2012-12/MCC4.NBT.3)
- add and subtract multi-digit whole numbers fluently using the standard algorithm (CCGPS) (4MA_B2012-13/MCC4.NBT.4)
- multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain multiplication calculations by using equations, rectangular arrays, and/or area models (CCGPS) (4MA_B2012-14/MCC4.NBT.5)
- find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models (CCGPS) (4MA_B2012-16/MCC4.NBT.6)

**C - Number and Operations: Fractions**

- explain why a fraction a/b is equivalent to a fraction (n x a/n x 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) (4MA_C2012-18/MCC4.NF.1)
- compare two fractions with different numerators and different denominators (e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2); recognize that comparisons are valid only when the two fractions refer to the same whole; record the results of comparisons with symbols >, =, or <, and justify the conclusions (e.g., by using a visual fraction model) (CCGPS) (4MA_C2012-19/MCC4.NF.2)
- recognize that a fraction a/b with a > 1 as a sum of fractions 1/b (CCGPS) (4MA_C2012-21/MCC4.NF.3)
- model and explain addition and subtraction of fractions as joining and separating parts referring to the same whole (CCGPS) (4MA_C2012-22/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 and justify reasoning using visual fraction models (e.g., 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8; 8/8 = 7/8 + 1/8) (CCGPS) (4MA_C2012-23/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) (4MA_C2012-24/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) (4MA_C2012-25/MCC4.NF.3_d)
- apply and extend previous understanding of multiplication to multiply a fraction by a whole number (CCGPS) (4MA_C2012-26/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 x (1/4), recording the conclusion by the equation 5/4 = 5 x (1/4)) (CCGPS) (4MA_C2012-27/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 x (2/5) as 6 x (1/5), recognizing this product as 6/5; (In general, n x (a/b) = (n x a)/b)) (CCGPS) (4MA_C2012-28/MCC4.NF.4_b)
- solve word problems involving multiplication of a fraction by a whole number (e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3/8 of a pound of roast beef and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?) (CCGPS) (4MA_C2012-29/MCC4.NF.4_c)
- express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100 (e.g., express 3/10 as 30/100 and add 3/10 + 4/100 = 34/100) (CCGPS) (4MA_C2012-30/MCC4.NF.5)
- use decimal notation for fractions with denominators 10 or 100 (e.g., rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram) (CCGPS) (4MA_C2012-31/MCC4.NF.6)
- compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model (CCGPS) (4MA_C2012-32/MCC4.NF.7)

**D - Measurement and Data**

- know relative sizes of measurement units within one system of units, including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. (e.g., know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2,24), (3, 36),... (CCGPS) (4MA_D2012-33/MCC4.MD.1)
- use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale (CCGPS) (4MA_D2012-36/MCC4.MD.2)
- apply the area and perimeter formulas for rectangles in real-world and mathematical problems (e.g., find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor) (CCGPS) (4MA_D2012-38/MCC4.MD.3)
- make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8) Solve problems involving addition and subtraction of fractions by using information presented in line plots (e.g., from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection) (CCGPS) (4MA_D2012-39/MCC4.MD.4)

**E - Geometry**

- recognize angles as geometric shapes that are formed wherever two rays share a common endpoint and understand concepts of angle measurement (CCGPS) (4MA_E2012-40/MCC4.MD.5)
- recognize that an angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle; an angle that turns through 1/360 of a circle is called a "one-degree angle", and can be used to measure angles (CCGPS) (4MA_E2012-41/MCC4.MD.5_a)
- recognize that an angle that turns through "n" one-degree angles is said to have an angle measure of "n" degrees (CCGPS) (4MA_E2012-42/MCC4.MD.5_b)
- measure and draw angles using tools such as a protractor or angle ruler (CCGPS) (4MA_E2012-43/MCC4.MD.6)
- recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems (e.g., by using an equation with a symbol for the unknown angle measure) (CCGPS) (4MA_E2012-44/MCC4.MD.7)
- draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines and identify these in two-dimensional figures (CCGPS) (4MA_E2012-46/MCC4.G.1)
- classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles (CCGPS) (4MA_E2012-47/MCC4.G.2)
- recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry (CCGPS) (4MA_E2012-49/MCC4.G.3)

# Science

(Reference Code: 4SC)

**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) (4SC_A2006-1)
- demonstrate knowledge of scientific processes and inquiry methods (GPS, ITBS) (4SC_A2006-2)
- apply computation and estimation skills necessary for analyzing data and following scientific explanations (GPS, ITBS) (4SC_A2006-3)
- use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing safe laboratory procedures (GPS, ITBS) (4SC_A2006-4)
- use the concepts of system, model, change, and scale when exploring scientific and technological matters (GPS, ITBS) (4SC_A2006-5)
- communicate scientific ideas and activities clearly (GPS, ITBS) (4SC_A2006-6)
- question scientific claims and arguments effectively (GPS, ITBS) (4SC_A2006-7)

**B - Earth Science**

- analyze the components of our solar system and their relationship to one another (GPS, ITBS) (4SC_B2006-8)
- analyze the role of relative position and motion in determining the sequence of the phases of the moon (GPS, ITBS) (4SC_B2006-9)
- differentiate between the states of water and how they relate to the water cycle and weather (GPS, ITBS) (4SC_B2006-10)
- analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes (GPS, ITBS) (4SC_B2006-11)

**C - Physical Science**

- investigate the nature of light, using tools (e.g., mirrors, lenses, prisms) (GPS, ITBS) (4SC_C2006-12)
- investigate how sound is produced by vibrating objects (GPS, ITBS) (4SC_C2006-13)
- demonstrate the relationship between force and motion (GPS, ITBS) (4SC_C2006-14)

**D - Life Science**

- describe the roles of organisms and the flow of energy within an ecosystem (GPS, ITBS) (4SC_D2006-15)
- explain various factors (e.g., adaptation, variation, behavior, external features) that affect the survival or extinction of organisms (GPS, ITBS) (4SC_D2006-16)

# Social Studies

(Reference Code: 4SS)

**A - Map and Globe Skills**
- use cardinal directions (GPS) (4SS_A2008-1)
- use intermediate directions (GPS) (4SS_A2008-2)
- use a letter/number grid system to determine location (GPS) (4SS_A2008-3)
- compare and contrast the categories of natural, cultural, and political features found on maps (GPS) (4SS_A2008-4)
- use inch-to-inch map scale to determine distance on a map (GPS) (4SS_A2008-5)
- use map key/legend to acquire information from historical, physical, political, resource, product, and economic maps (GPS) (4SS_A2008-6)
- use a map to explain impact of geography on historical and current events (GPS) (4SS_A2008-7)
- draw conclusions and make generalizations based on information from maps (GPS) (4SS_A2008-8)
- use latitude and longitude to determine location (GPS) (4SS_A2008-9)
- use graphic scales to determine distances on a map (GPS) (4SS_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) (4SS_A2008-11)
- compare maps with data sets (charts, tables, graphs) and/or readings to draw conclusions and make generalizations (GPS) (4SS_A2008-12)

**B - Information Processing Skills**
- compare similarities and differences (GPS) (4SS_B2008-13)
- organize items chronologically (GPS) (4SS_B2008-14)
- identify issues and/or problems and alternative solutions (GPS) (4SS_B2008-15)
- distinguish between fact and opinion (GPS) (4SS_B2008-16)
- identify main idea, detail, sequence of events, and cause and effect in a social studies context (GPS) (4SS_B2008-17)
- identify and use primary and secondary sources (GPS) (4SS_B2008-18)
- interpret timelines (GPS) (4SS_B2008-19)
- identify social studies reference resources to use for a specific purpose (GPS) (4SS_B2008-20)
- construct charts and tables (GPS) (4SS_B2008-21)
- analyze artifacts (GPS) (4SS_B2008-22)
- draw conclusions and make generalizations (GPS) (4SS_B2008-23)
- analyze graphs and diagrams (GPS) (4SS_B2008-24)
- translate dates into centuries, eras, or ages (GPS) (4SS_B2008-25)
- formulate appropriate research questions (GPS) (4SS_B2008-26)
- determine adequacy and/or relevancy of information (GPS) (4SS_B2008-27)
- check for consistency of information (GPS) (4SS_B2008-28)
- interpret political cartoons (GPS) (4SS_B2008-29)

**C - Native American Cultures**
- describe how early Native American cultures developed in North America (GPS) (4SS_C2008-30)
- locate important physical and man-made features in the United States (GPS) (4SS_C2008-31)

**D - European Exploration in North America**
- describe European exploration in North America (GPS) (4SS_D2008-32)
- compare and contrast examples of cooperation and conflict between Europeans and Native Americans (GPS) (4SS_D2008-33)
- name positive character traits of key historic figures and government leaders (e.g., honesty, patriotism, courage, trustworthiness) (GPS) (4SS_D2008-34)
- use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity, and price incentives to illustrate historical events (GPS) (4SS_D2008-35)

**E - Colonial America**

- explain the factors that shaped British colonial America (GPS) (4SS_E2008-36)
- describe colonial life in America as experienced by various people, including large landowners, farmers, artisans, women, indentured servants, slaves, and Native Americans (GPS) (4SS_E2008-37)
- name positive traits of key historic figures and government leaders (e.g., honesty, patriotism, courage, trustworthiness) (GPS) (4SS_E2008-38)
- use basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity, and price incentives to illustrate historical events (GPS) (4SS_E2008-39)

**F - The American Revolution**

- trace the events that shaped the revolutionary movement in America (GPS) (4SS_F2008-40)
- explain the development of the Declaration of Independence (GPS) (4SS_F2008-41)
- describe the major events of the Revolution and explain the factors leading to American victory and British defeat (GPS) (4SS_F2008-42)
- describe key individuals in the American Revolution (GPS) (4SS_F2008-43)
- describe how physical systems affect human systems in regard to the American Revolution (GPS) (4SS_F2008-44)
- name positive character traits of key historic figures and government leaders (e.g., honesty, patriotism, courage, trustworthiness) associated with the American Revolution (GPS) (4SS_F2008-45)
- use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity, and price incentives to illustrate historical events specific to the American Revolution (GPS) (4SS_F2008-46)

**G - The New Nation**

- analyze the challenges faced by the new nation (GPS) (4SS_G2008-47)
- differentiate natural rights as found in the Declaration of Independence (e.g., the right to life, liberty, and the pursuit of happiness) (GPS) (4SS_G2008-48)
- compare and contrast "We the People" from the Preamble to the U.S. Constitution as a reflection of consent of the governed or popular sovereignty (GPS) (4SS_G2008-49)
- explain the federal system of government in the U.S. (GPS) (4SS_G2008-50)
- discuss the importance of freedom of expression as guaranteed by the First Amendment to the U.S. Constitution (GPS) (4SS_G2008-51)
- describe the functions of the government (GPS) (4SS_G2008-52)
- explain the importance of Americans sharing certain central democratic beliefs and principles, both personal and civic (GPS) (4SS_G2008-53)
- describe how physical systems affect human systems in regard to development of a new nation (GPS) (4SS_G2008-54)
- use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity, and price incentives to illustrate historical events specific to the development of a new nation (GPS) (4SS_G2008-55)

**H - Westward Expansion**

- explain Westward Expansion of America between 1801 and 1861 (GPS) (4SS_H2008-56)
- describe the economic conditions and the effect on growth and expansion (GPS) (4SS_H2008-57)
- locate important physical and man-made features in the United States (GPS) (4SS_H2008-58)
- describe how physical systems affect human systems in regard to Westward Expansion (GPS) (4SS_H2008-59)

**I - Reform Movements**

- examine the main ideas of the abolitionist and suffrage movements (GPS) (4SS_I2008-60)
- name positive character traits of key historic figures and government leaders (e.g., honesty, patriotism, courage, trustworthiness) associated with the reform movements (GPS) (4SS_I2008-61)
- use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity, and price incentives to illustrate historical events specific to the reform movements (GPS) (4SS_I2008-62)

**J - Personal Finance**

- identify the elements of a personal budget and explain why personal spending and saving decisions are important (GPS) (4SS_J2008-63)

# General Music

(Reference Code: 4GM)

**A - Skills and Techniques/Performance**
- sing, alone and with others, a varied repertoire of music (GPS) (4GM_A2011-1)
- perform on instruments, alone and with others, a varied repertoire of music (GPS) (4GM_A2011-2)
- read and notate music (GPS) (4GM_A2011-3)

**B - Creative Expression and Communication**
- improvise melodies, variations, and accompaniments (GPS) (4GM_B2011-4)
- compose and arrange music within specified guidelines (GPS) (4GM_B2011-5)

**C - Critical Analysis/Investigation**
- listen to, analyze, and describe music (GPS) (4GM_C2011-6)
- evaluate music and music performances (GPS) (4GM_C2011-7)

**D - Cultural and Historical Context**
- understand relationships between music, the other arts, and disciplines outside the arts (GPS) (4GM_D2011-8)
- understand music in relation to history and culture (GPS) (4GM_D2011-9)
- move, alone and with others, to a varied repertoire of music (GPS) (4GM_D2011-10)

# Health

(Reference Code: 4HE)

**A - First Aid**
- apply appropriate first aid procedures for treating bleeding wounds (4HE_A2009-1)

**B - Safety**
- describe how each person can have an impact on the health and safety of others (GPS) (4HE_B2009-2)

**C - Personal Care**
- explain the influence of rest, food choices, exercise, sleep, and recreation on a person's well-being (GPS) (4HE_C2009-3)
- set a personal health goal based on an individual health risk assessment and make progress toward its achievement (GPS) (4HE_C2009-4)

**D - Disease Prevention**
- recognize diseases/illnesses and discuss methods of prevention (GPS) (4HE_D2009-5)

**E - Tobacco, Alcohol, and Other Drugs**
- examine the effects of tobacco products on the circulatory and respiratory systems (GPS) (4HE_E2009-6)
- examine the harmful effects of marijuana, hallucinogens, amphetamines, and inhalants on the body (GPS) (4HE_E2009-7)
- explain the safe and appropriate use of over-the-counter drugs (GPS) (4HE_E2009-8)
- critique advertisements and commercials which encourage the use of medicines, tobacco, and alcohol (GPS) (4HE_E2009-9)

**F - Nutrition**
- detect the short- and long-term effects that diet and physical activity have on health (GPS) (4HE_F2009-10)

**G - Emotional Expression/Mental Health**
- describe ways to resolve conflicts without fighting (GPS) (4HE_G2009-11)
- develop and practice skills that communicate care, consideration, and respect of self and others, including those with disabilities (GPS) (4HE_G2009-12)

**H - Family Life**
- recognize the importance of the role that mothers and fathers play in the nurturing, guidance, care, and support of a child (4HE_H2009-13)
- explore the concept of basic physical and emotional changes related to maturity (4HE_H2009-14)

**I - Applied Anatomy and Physiology**
- identify the parts and major functions of the digestive system (4HE_I2009-15)

# Physical Education

(Reference Code: 4PE)

**A - Fitness**
- participate in health-enhancing fitness activities (GPS) (4PE_A2009-1)
- demonstrate progress toward meeting health-related fitness standards as defined by research (GPS) (4PE_A2009-2)

**B - Motor Skills and Movement Patterns**
- exhibit combinations of locomotor patterns (GPS) (4PE_B2009-3)
- demonstrate static and dynamic balances incorporating directional changes and various movement levels (GPS) (4PE_B2009-4)
- demonstrate a combination of throwing and catching skills (GPS) (4PE_B2009-5)

**C - Movement Concepts and Principles**
- create and demonstrate movement sequences to a rhythm (GPS) (4PE_C2009-6)
- design and perform sequences involving rolling and weight transfer (GPS) (4PE_C2009-7)

**D - Personal and Social Behavior**
- demonstrate progress and accuracy striking with body parts and implements (GPS) (4PE_D2009-8)
- create relationships by understanding self, space, and equipment (GPS) (4PE_D2009-9)
- demonstrate and identify the purposes for activities while following rules to games and using game-play etiquette (GPS) (4PE_D2009-10)

# Visual Arts

(Reference Code: 4VA)

**A - Meaning and Idea/Creative Thinking**
- engage in the creative process to generate and visualize ideas (GPS) (4VA_A2011-1)
- formulate personal responses to visual imagery (GPS) (4VA_A2011-2)
- select and use subject matter, symbols, and/or ideas to communicate meaning (GPS) (4VA_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) (4VA_B2011-4)
- view, discuss, and critique selected artworks (GPS) (4VA_B2011-5)

**C - Production**
- create artwork based on personal experience and selected themes (GPS) (4VA_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) (4VA_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) (4VA_C2011-8)
- plan and participate in appropriate exhibition(s) of artworks (GPS) (4VA_C2011-9)

**D - Assessment and Reflection**
- explore and discuss art portfolios (GPS) (4VA_D2011-10)
- utilize a variety of approaches to understand and critique works of art (GPS) (4VA_D2011-11)
- explain how selected elements and principles of design are used in an artwork to convey meaning (GPS) (4VA_D2011-12)

**E - Connections**
- apply information and processes from other disciplines to enhance the understanding and production of artworks (GPS) (4VA_E2011-13)
- develop life skills through the study and production of art (GPS) (4VA_E2011-14)

# Modern Languages - Level A

(Reference Code: 4MLA)

**A - Basic Oral and Listening Communication**
- use common greetings and expressions (GPS) (4MLA_A2009-1)
- respond to classroom instruction and directions (GPS) (4MLA_A2009-2)
- explore feelings and emotions (GPS) (4MLA_A2009-3)
- explore likes and dislikes (GPS) (4MLA_A2009-4)

**B - Vocabulary Development**
- recognize and use the alphabet (GPS) (4MLA_B2009-5)
- recognize and count numerals (GPS) (4MLA_B2009-6)
- recognize and name selected colors (GPS) (4MLA_B2009-7)
- recognize and name selected shapes (GPS) (4MLA_B2009-8)
- recognize and name days of the week and months of the year (GPS) (4MLA_B2009-9)
- recognize and name seasons and basic weather vocabulary (GPS) (4MLA_B2009-10)
- recognize and name classroom objects (GPS) (4MLA_B2009-11)
- recognize and name immediate family members (GPS) (4MLA_B2009-12)
- recognize and name selected articles of clothing (GPS) (4MLA_B2009-13)
- recognize and name selected parts of the body (GPS) (4MLA_B2009-14)
- recognize and name rooms in the house (GPS) (4MLA_B2009-15)
- recognize and name selected foods and beverages (GPS) (4MLA_B2009-16)
- recognize and name selected animals (GPS) (4MLA_B2009-17)

**C - Culture**
- name countries where the target language is spoken (GPS) (4MLA_C2009-18)
- explore holidays and traditional celebrations of the target language cultures (GPS) (4MLA_C2009-19)
- explore significant people from the target language cultures (GPS) (4MLA_C2009-20)

**D - Connections, Comparisons, and Communities**
- explore connections to student learning in other subject areas (GPS) (4MLA_D2009-21)
- explore and compare basic language features (GPS) (4MLA_D2009-22)
- explore comparisons of the target culture(s) with the students' culture (GPS) (4MLA_D2009-23)
- explore where students can encounter the target language beyond the classroom setting (GPS) (4MLA_D2009-24)

# Modern Languages - Level B

(Reference Code: 4MLB)

**A - Basic Communication**

- comprehend and respond appropriately to greetings, farewells, and basic social situations (GPS) (4MLB_A2009-1)
- respond to classroom instruction and directions (GPS) (4MLB_A2009-2)
- express feelings and emotions (GPS) (4MLB_A2009-3)
- express likes and dislikes (GPS) (4MLB_A2009-4)
- count, identify, and manipulate numbers (GPS) (4MLB_A2009-5)
- integrate alphabet into a variety of activities (GPS) (4MLB_A2009-6)
- recognize, name, and sequence days of the week and months of the year (GPS) (4MLB_A2009-7)
- use basic weather vocabulary and organize the months of the year by season (GPS) (4MLB_A2009-8)
- identify and describe immediate and extended family members (GPS) (4MLB_A2009-9)
- identify and use phrases to describe clothing (GPS) (4MLB_A2009-10)
- recognize time by hour, half-hour, quarter-hour, and digital format (GPS) (4MLB_A2009-11)
- identify selected parts of the body (GPS) (4MLB_A2009-12)
- identify and describe classroom objects and their uses (GPS) (4MLB_A2009-13)
- identify rooms of a house and basic furniture (GPS) (4MLB_A2009-14)
- identify, classify, and describe various food and beverages (GPS) (4MLB_A2009-15)
- identify household pets, domestic, farm, and zoo animals (GPS) (4MLB_A2009-16)
- identify means of transportation (GPS) (4MLB_A2009-17)
- identify selected professions and places in the community (GPS) (4MLB_A2009-18)

**B - Culture**

- locate and name target language countries on a map or globe (GPS) (4MLB_B2009-19)
- identify holidays and traditional celebrations of the target language cultures (GPS) (4MLB_B2009-20)
- explore similarities and differences among a variety of cultures (GPS) (4MLB_B2009-21)
- explore national symbols and features of target language countries (GPS) (4MLB_B2009-22)
- identify significant people from the target language cultures (GPS) (4MLB_B2009-23)

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

- identify connections to student learning in other subject areas (GPS) (4MLB_C2009-24)
- identify and compare basic language features (GPS) (4MLB_C2009-25)
- identify comparisons of the target culture(s) with the students' culture (GPS) (4MLB_C2009-26)
- identify where students can encounter the target language beyond the classroom setting (GPS) (4MLB_C2009-27)

# Modern Languages - Level C

(Reference Code: 4MLC)

**A - Basic Communication**

- use common courtesy expressions in a variety of social situations (GPS) (4MLC_A2009-1)
- respond to classroom instruction and directions (GPS) (4MLC_A2009-2)
- describe a variety of emotions and feelings (GPS) (4MLC_A2009-3)
- describe likes and dislikes (GPS) (4MLC_A2009-4)
- perform simple math operations (GPS) (4MLC_A2009-5)
- manipulate common sequences such as alphabet, calendar, and seasons (GPS) (4MLC_A2009-6)
- classify and describe vocabulary related to food, clothing, weather, family, animals, home, transportation, and sports (GPS) (4MLC_A2009-7)
- recognize and use time by hour, half-hour, quarter-hour, and digital format (GPS) (4MLC_A2009-8)
- read and comprehend short narratives and passages (GPS) (4MLC_A2009-9)
- construct simple sentences and short narratives (GPS) (4MLC_A2009-10)

**B - Culture**

- locate and name target language countries on a map or globe (GPS) (4MLC_B2009-11)
- name and describe holidays and traditional celebrations of the target language cultures (GPS) (4MLC_B2009-12)
- compare and contrast similarities and differences among a variety of cultures (GPS) (4MLC_B2009-13)
- describe national symbols and features of target language countries (GPS) (4MLC_B2009-14)
- identify and research an area of interest pertaining to the target language and/or culture (GPS) (4MLC_B2009-15)

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

- identify connections to student learning in other subject areas (GPS) (4MLC_C2009-16)
- identify and compare basic language features (GPS) (4MLC_C2009-17)
- identify comparisons of the target culture(s) with the students' culture (GPS) (4MLC_C2009-18)
- identify where students can encounter the target language beyond the classroom setting (GPS) (4MLC_C2009-19)


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