



# AKS

ACADEMIC KNOWLEDGE AND SKILLS  
GWINNETT COUNTY PUBLIC SCHOOLS

## 5TH GRADE

2019–20 COMPLETE AKS

Gwinnett's curriculum for grades K–12 is called the Academic Knowledge and Skills (AKS) and is aligned to the state-adopted Georgia Standards of Excellence (GSE) in Language Arts, Mathematics, Science, and Social Studies 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 spells out the essential things students are expected to know and be able to do in that grade or subject. The AKS offers a solid base on which teachers build rich learning experiences. Teachers use curriculum guides, technology, and instructional resources to teach the AKS and to make sure every student is learning to his or her potential.

The Academic Knowledge and Skills curriculum was 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 Georgia Standards of Excellence (GSE) in the areas of Mathematics, Language Arts, Science, and Social Studies for elementary students. 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 Georgia Milestones Assessment System (Milestones).

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 (Iowa) 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 national, norm-referenced Iowa Tests provide 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 implemented the Georgia Milestones Assessment System (Georgia Milestones) which is a comprehensive assessment program. Students in grade 5 take an end-of-grade assessment 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**

- 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) and Career and Technical Education. In addition, comprehensive books (blue cover) include the AKS for all elementary school grade levels (K–5) 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](http://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 student'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 later in the year.

## 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](http://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

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### A - Reading Literary Text

- quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text
- 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
- 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)
- determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes
- explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem
- describe how a narrator's or speaker's point of view influences how events are described
- 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)
- compare and contrast stories in the same genre (e.g., mysteries, adventure stories) on their approaches to similar themes and topics
- 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

### B - Reading Informational Text

- quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text
- determine two or more main ideas of a text and explain how they are supported by key details; summarize the text
- 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
- determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area
- 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

## 5th Grade Language Arts

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

- analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent
- 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
- explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence supports which point(s)
- integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably
- 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

### **C - Reading Foundation**

- know and apply grade-level phonics and word analysis skills in decoding words
- read with sufficient accuracy and fluency to support comprehension

### **D - Writing**

- write opinion pieces on topics or texts, supporting a point of view with reasons and information
- write informative/explanatory texts to examine a topic and convey ideas and information clearly
- write narratives to develop real or imagined experiences or events, using effective technique, descriptive details, and clear event sequences
- produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience
- develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, with guidance and support from peers and adults
- use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills, with some guidance and support from adults
- conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic
- 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
- draw evidence from literary or informational texts to support analysis, reflection, and research

## 5th Grade Language Arts

### D - Writing *(continued)*

- 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

### E - Speaking and Listening

- engage effectively in a range of collaborative discussions (e.g., 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
- summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally
- summarize the points a speaker makes and explain how each claim is supported by reasons and evidence
- 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
- include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes
- adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation

### F - Language

- demonstrate command of the conventions of standard English grammar and usage when writing or speaking
- demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- use knowledge of language and its conventions when writing, speaking, reading, or listening
- 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
- demonstrate understanding of figurative language, word relationships, and nuances in word meanings
- 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)

## Mathematics

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### A - Operations and Algebraic Thinking

- use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols
- 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)
- generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms by completing a function table or input/output table. Using the terms created, form, and graph ordered pairs on a coordinate plane

### 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
- 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
- read, write, order, and compare place value of decimals to thousandths using base ten numerals, number names, and expanded form (e.g.,  $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$ )
- compare two decimals to thousandths based on meanings of the digits in each place, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons
- use place value understanding to round decimals to any place
- multiply multi-digit whole numbers fluently using the standard algorithm (or other strategies demonstrating understanding of multiplication) up to a 3 digit by a 2 digit factor
- 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 or concrete models (e.g., rectangular arrays and/or area models)



## 5th Grade Mathematics

### B - Number and Operations in Base Ten *(continued)*

- 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

### C - Number and Operations: Fractions

- add and subtract fractions and mixed numbers with unlike denominators by finding a common denominator and equivalent fractions to produce like denominators
- solve word problems involving addition and subtraction of fractions 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  $3/7 < 1/2$ )
- 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.  $3/5$  can be interpreted as 3 divided by 5 and as 3 shared by 5)
- apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction
- apply and use the understanding of multiplication to multiply a fraction or whole number by a fraction. Examples:  $(a/b) \times q$  as  $(a/b) \times (q/1)$  and  $(a/b) \times (c/d) = ac/bd$
- 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
- relate the principle of fraction equivalence,  $a/b = (n \times a)/(n \times b)$ , to the effect of multiplying  $a/b$  by 1
- interpret multiplication as scaling by comparing the size of the product to the sizes of the factors without multiplying
- 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
- solve real-world problems involving multiplication of fractions and mixed numbers by using visual fraction models or equations to represent the problem
- 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  $(1/12) \times 4 = 1/3$ )

## 5th Grade Mathematics

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

- 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  $20 \times (1/5) = 4$ )
- 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, (e.g., 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?)

### D - Measurement and Data

- convert among different-sized standard measurement units (mass, weight, length, time, etc.) within a given measurement system (customary and metric), and use these conversions in solving multi-step, real-world problems (e.g., convert 5 cm to 0.05 m)
- make a line plot to display a data set of measurements in fractions of a unit ( $1/2$ ,  $1/4$ ,  $1/8$ ) 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)
- 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
- apply concepts of volume measurement to explain volume as an attribute of solid figures packed without gaps or overlaps using "n" unit cubes
- measure volume as cubic centimeters, cubic meters, cubic inches, cubic feet and improvised units
- relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume
- 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
- 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
- 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

## 5th Grade Mathematics

### E - Geometry

- create, label, and use a coordinate grid system
- 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
- 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)
- classify two-dimensional figures in a hierarchy based on properties (polygons, triangles, and quadrilaterals)

## Mathematics Grade 5 Enrichment

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### A - Number and Operations in Base Ten

- 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 or concrete models
- 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

### B - Number and Operations: Fractions

- solve word problems involving addition and subtraction of fractions including cases of unlike denominators; use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers
- solve real world problems involving multiplication of fractions and mixed numbers by using visual fraction models or equations to represent the problem
- 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
- solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions

### C - Measurement and Data

- 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
- 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

### D - Geometry

- demonstrate that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category
- classify two-dimensional figures in a hierarchy based on properties (polygons, triangles, and quadrilaterals)
- 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

## 5th Grade Science

### Science

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#### A - Earth Science

- obtain, evaluate, and communicate information to identify surface features on Earth caused by constructive and/or destructive processes

#### B - Physical Science

- obtain, evaluate, and communicate information to investigate electricity
- obtain, evaluate, and communicate information about magnetism and its relationship to electricity
- obtain, evaluate, and communicate information to explain the differences between a physical change and a chemical change

#### C - Life Science

- obtain, evaluate, and communicate information about how microorganisms benefit or harm larger organisms
- obtain, evaluate, and communicate information to group organisms using scientific classification procedures
- obtain, evaluate, and communicate information to compare and contrast the parts of plant and animal cells
- obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited and other characteristics are acquired

## Science Grade 5 Enrichment

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### A - Content

- construct a model to explain the function of plant and animal organelles (i.e., cell membrane, cell wall, cytoplasm, nucleus, and chloroplasts)
- develop a model that illustrates how animals are sorted into groups (i.e., vertebrate and invertebrate) and how vertebrates are further sorted into groups (i.e., fish, amphibians, reptile, bird, and mammal) using data from multiple sources
- develop a model that illustrates how plants are sorted into groups (i.e., vascular and nonvascular) and how vascular plants are further sorted into groups (i.e., seed producers and non-seed producers) using data from multiple sources
- construct an explanation to compare and contrast inherited and acquired physical traits
- plan and carry out investigations by manipulating, separating, and mixing dry and liquid materials and communicate collected data to demonstrate physical changes
- plan and carry out an investigation to determine if a chemical change occurred based on observable evidence (i.e., color, gas, temperature change, odor, and/or new substances produced)
- construct an argument supported by scientific evidence to identify surface features (e.g., deltas, sea arches, sand dunes, mountains, canyons, and volcanoes) as being caused by constructive and/or destructive processes (e.g., plate movement, deposition, weathering, erosion, impact of organisms)
- develop simple, interactive models to collect data that illustrate how changes in surface features are/were caused by constructive and/or destructive processes
- design a complete, simple electric circuit, and explain all necessary components
- plan and carry out an investigation to test common materials to determine if they are insulators or conductors of electricity
- plan and carry out an investigation to observe the interaction between a magnet and a magnetic object on opposite sides of various materials such as wood, paper, glass, metal, and rocks

## 5th Grade Science

### STEM Exploratory/Grade 5

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#### A - Technology, Programming, and Robotics

- create algorithms, or series of ordered steps, to solve problems
- decompose a problem, into smaller, more manageable parts
- collect, analyze, and represent data effectively
- demonstrate an understanding of how information is represented, stored, and processed by a computer
- optimize an algorithm for execution by a computer
- demonstrate dispositions amenable to open-ended problem solving and programming (e.g., comfort with complexity, persistence brainstorming, adaptability, patience, propensity to tinker, creativity, accepting challenge)
- use hands-on learning and the physical environment to explore computing concepts
- write programs using block-based programming languages
- locate and debug errors in a program
- read a program and translate it into English; explain how a particular program functions
- modify and create animations, and present work to teammates
- design, code, test, and execute a program that corresponds to a set of specifications
- implement problem solutions using a programming language, including sequence, iteration (i.e., simple and nested loops), and conditional statements

#### B - Science

- obtain, evaluate, and communicate information to compare and contrast the parts of plant and animal cells
- obtain, evaluate, and communicate information to explain the differences between a physical change and a chemical change
- obtain, evaluate, and communicate information to identify surface features on Earth caused by constructive and/or destructive processes

#### C - Math

- compare two decimals to thousandths based on meanings of the digits in each place, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons

## 5th Grade Science

### C - Math *(continued)*

- 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  $\frac{1}{10}$  of what it represents in the place to its left
- make a line plot to display a data set of measurements in fractions of a unit (e.g.,  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ) 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)
- solve word problems involving addition and subtraction of fractions 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  $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$ , by observing that  $\frac{3}{7} < \frac{1}{2}$ )



## Social Studies

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### A - Map and Globe Skills

- use cardinal directions
- use intermediate directions
- use a letter/number grid system to determine location
- compare and contrast the categories of natural, cultural, and political features found on maps
- use inch-to-inch map scale to determine distance on a map
- use map key/legend to acquire information from historical, physical, political, resource, product, and economic maps
- use a map to explain impact of geography on historical and current events
- draw conclusions and make generalizations based on information from maps
- use latitude and longitude to determine location
- use graphic scales to determine distances on a map
- compare maps of the same place at different points in time and from different perspectives to determine changes, identify trends, and generalize about activities
- compare maps with data sets (e.g., charts, tables, graphs) and/or readings to draw conclusions and make generalizations

### B - Information Processing Skills

- compare similarities and differences
- organize items chronologically
- identify issues and/or problems and alternative solutions
- distinguish between fact and opinion
- identify main idea, detail, sequence of events, and cause and effect in a social studies context
- identify and use primary and secondary sources
- interpret timelines

## **5th Grade Social Studies**

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

- identify social studies reference resources to use for a specific purpose
- construct charts and tables
- analyze artifacts
- draw conclusions and make generalizations
- analyze graphs and diagrams
- translate dates into centuries, eras, or ages
- formulate appropriate research questions
- determine adequacy and/or relevancy of information
- check for consistency of information
- interpret political cartoons

### **C - Turn of the Century**

- describe how life changed in America at the turn of the century
- locate important places in U.S History since the turn of the century on a map
- explain the reasons for the spatial patterns of economic activities
- explain how a citizen's rights are protected under the U.S. Constitution
- explain the process by which amendments to the U.S. Constitution are made
- explain how amendments to the U. S. Constitution have maintained a representative democracy/republic as the form of government for the United States

### **D - World War I**

- describe U.S. involvement in World War I and discuss post-World War I America

### **E - The Great Depression**

- explain how the Great Depression and New Deal affected the lives of millions of Americans

### **F - World War II**

- explain America's involvement in World War II

## **5th Grade Social Studies**

### **G - The Cold War**

- discuss the origins and consequences of the Cold War
- describe the importance of key people, events, and developments between 1950 and 1975

### **H - America Since 1975**

- trace important developments in America from 1975 to 2001

### **I - Economics and Personal Finance**

- use the basic economic concepts of trade, opportunity cost, specialization, productivity, and price incentives to illustrate historical events
- describe the functions of the four major sectors in the U. S. economy
- describe how consumers and producers interact in the U. S. economy
- identify the elements of a personal budget (i.e., income, expenditures, and saving) and explain why personal spending and saving decisions are important

## **English to Speakers of Other Languages (ESOL)**

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### **A - Reading Foundations**

- recognize, identify, order, and distinguish among topics, themes, storylines, ideas, events, and facts in fiction and non-fiction texts with visual support and scaffolding appropriate to the proficiency level
- demonstrate understanding of the organization and basic features of print in both fiction and non-fiction texts with visual support and scaffolding appropriate to the proficiency level
- describe the relationship between illustrations and the story (how illustrations support the text) in fiction and non-fiction texts, with modeling and scaffolding appropriate to the proficiency level
- name and match all upper-and lowercase letters of the alphabet out of sequence and demonstrate basic knowledge of one-to-one letter-sound correspondences for each consonant and long and short sounds of the five major vowels, with visual support, modeling, and scaffolding appropriate to the proficiency level
- demonstrate understanding of spoken words, syllables, and sounds (phonemes), with scaffolding appropriate to the proficiency level
- know and apply phonics and word analysis skills in decoding words, with modeling and scaffolding appropriate to the proficiency level
- recognize and produce rhyming words in context using familiar word families, with scaffolding appropriate to the proficiency level
- read common high frequency words and phrases in context in both fiction and non-fiction texts, with visual support and scaffolding appropriate to the proficiency level
- make predictions from pictures and titles in unfamiliar fiction and non-fiction texts, with modeling and scaffolding appropriate to the proficiency level
- compare and contrast two related texts, with visual support, modeling, and scaffolding appropriate to the proficiency level
- read texts with increasing accuracy and fluency to support comprehension, with scaffolding appropriate to the proficiency level

### **B - Vocabulary Development**

- recognize, identify, classify, and use vocabulary related to numbers, colors, shapes, size, weather, calendar, and time, with visual support and scaffolding appropriate to the proficiency level
- ask and answer questions about unknown words in fiction and non-fiction texts, with visual support, modeling, and scaffolding appropriate to the proficiency level

## 5th Grade ESOL

### **B - Vocabulary Development** *(continued)*

- recognize, identify, understand, and use vocabulary related to social and instructional situations (e.g., self, family, school, rooms and areas within school and associated activities, home, rooms in the home and associated activities, food and nutrition, interests, pets, hobbies, and talents) in spoken interaction and written texts, with visual support and scaffolding appropriate to the proficiency level
- begin to distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl), with visual support, modeling, and scaffolding appropriate to the proficiency level
- begin to distinguish shades of meaning among adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings, with visual support, modeling, and scaffolding appropriate to the proficiency level

### **C - Social and Instructional Language**

- participate in simple collaborative conversations with diverse partners about appropriate, culturally relevant topics, with visual support, modeling, and scaffolding to the proficiency level
- use and understand vocabulary appropriate to content area or genre with increasing accuracy with visual support, modeling, and scaffolding appropriate to the proficiency level
- ask and answer questions to seek help, get information, or clarify something, with visual support, modeling, and scaffolding appropriate for the proficiency level
- explain relationships and express cause and effect with visual support, modeling, and scaffolding to the proficiency level
- describe people, places, things, and events with relevant details with visual support, modeling, and scaffolding to the proficiency level
- tell a story or recount an experience with appropriate facts and relevant descriptive details, with increasing attention to audience and purpose with visual support, modeling, and scaffolding to the proficiency level

### **D - Writing**

- write simple texts that provide information, describe feelings or personal reactions, recount events or information, describe observations, tell a story, or share an opinion with visual support, modeling, and scaffolding appropriate to the proficiency level
- participate in shared writing projects with visual support, modeling, and scaffolding to the proficiency level

### **E - Grammar and Conventions**

- use conventions of standard English grammar and usage when writing or speaking with increasing accuracy with visual support, modeling, and scaffolding appropriate to the proficiency level

## **5th Grade ESOL**

### **E - Grammar and Conventions** *(continued)*

- use and apply English syntax with increasing accuracy to create phrases and sentences based on level of English

### **F - United States Culture and Values**

- interact appropriately in common social and instructional situations with modeling, and scaffolding appropriate to the proficiency level
- locate and label the local community, nearest city, county, state, country, and continent on a map or globe with visual support, modeling, and scaffolding appropriate to the proficiency level
- identify the name and value of United States currency, with visual support, modeling, and scaffolding appropriate to the proficiency level
- compare United States culture with students' culture, with visual support, modeling, and scaffolding to the proficiency level
- recognize, identify, explore, and describe significant people from United States culture and begin to understand differences in historical times with visual support, modeling, and scaffolding appropriate to the proficiency level

## 5th Grade Fine Arts

### Dance 5

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#### A - Creating

- demonstrate an understanding of the choreographic process
- demonstrate an understanding of dance as a form of communication

#### B - Performing

- identify and demonstrate movement elements, technique, and terminology in ballet and jazz
- understand and model dance etiquette as a classroom participant, performer, and observer
- identify the relationship between human anatomy and movement
- understand and apply music concepts to dance

#### C - Responding

- demonstrate critical and creative thinking in dance

#### D - Connecting

- understand and demonstrate dance throughout history and in various cultures
- recognize connections between dance and wellness
- integrate dance into other areas of knowledge

## 5th Grade Fine Arts

### General Music 5

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#### A - Creating

- improvise melodies, rhythms, variations, and accompaniments
- compose and arrange music within specified guidelines

#### B - Performing

- sing a varied repertoire of music, alone and with others
- perform a varied repertoire of music on instruments, alone and with others
- read and notate music

#### C - Responding

- listen to, analyze, and describe music
- evaluate music and music performances
- move and respond to a varied repertoire of music, alone and with others

#### D - Connecting

- connect music to the other fine arts and disciplines outside the arts
- connect music to history and culture



## 5th Grade Fine Arts

### Media Art Grade 5

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#### A - Creating

- generate and conceptualize artistic ideas and work
- organize and develop artistic ideas and work
- refine and complete artistic work

#### B - Presenting/Producing

- select, analyze, and interpret artistic work for presentation
- develop and refine artistic techniques and work for presentation
- convey meaning through the presentation of artistic work

#### C - Responding

- perceive and analyze artistic work
- interpret intent and meaning in artistic work
- apply criteria to evaluate artistic work

#### D - Connecting

- relate artistic ideas and works with societal, cultural, and historical context to deepen understanding
- synthesize and relate knowledge and personal experiences to make art

## 5th Grade Fine Arts

### Theatre Arts

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#### A - Creating

- organize, design, and refine theatrical work
- develop scripts through theatrical techniques

#### B - Performing

- act by communicating and sustaining roles in formal and informal environments
- execute artistic and technical elements of theatre

#### C - Responding

- engage actively and appropriately as an audience member
- critique various aspects of theatre and other media

#### D - Connecting

- explore how theatre connects to life experience, careers, and other content
- examine the role of theatre in a societal, cultural, and historical context

## 5th Grade Fine Arts

### Visual Arts

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#### A - Creating

- engage in the creative process to generate and visualize ideas by using subject matter and symbols to communicate meaning
- create works of art based on selected themes
- understand and apply media, techniques, processes, and concepts of two-dimensional art
- understand and apply media, techniques, processes, and concepts of three-dimensional works of art
- demonstrate an understanding of the safe and appropriate use of materials, tools, and equipment for a variety of artistic processes

#### B - Presenting

- plan and participate in appropriate exhibition(s) of works of art to develop identity of self as artist
- develop and maintain an individual portfolio of works of art

#### C - Responding

- use a variety of approaches for art criticism and to critique personal works of art and the artwork of others to enhance visual literacy

#### D - Connecting

- investigate and discover the personal relationships of artists to community, culture, and the world through making and studying art
- integrate information from other disciplines to enhance the understanding and production of works of art
- develop life skills (e.g., collaboration, creativity, critical thinking, communication) through the study and production of art

## 5th Grade Foreign Language

### **Modern Languages Level A**

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#### **A - Basic Oral and Listening Communication**

- use common greetings and expressions
- respond to classroom instruction and directions
- explore feelings and emotions
- explore likes and dislikes

#### **B - Vocabulary Development**

- recognize and use the alphabet
- recognize and count numerals
- recognize and name selected colors
- recognize and name selected shapes
- recognize and name days of the week and months of the year
- recognize and name seasons and basic weather vocabulary
- recognize and name classroom objects
- recognize and name immediate family members
- recognize and name selected articles of clothing
- recognize and name selected parts of the body
- recognize and name rooms in the house
- recognize and name selected foods and beverages
- recognize and name selected animals

#### **C - Culture**

- name countries where the target language is spoken
- explore holidays and traditional celebrations of the target language cultures

## **5th Grade Foreign Language**

### **C - Culture** *(continued)*

- explore significant people from the target language cultures

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

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

## 5th Grade Foreign Language

### Modern Languages Level B

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#### A - Basic Communication

- comprehend and respond appropriately to greetings, farewells, and basic social situations
- respond to classroom instruction and directions
- express feelings and emotions
- express likes and dislikes
- count, identify, and manipulate numbers
- integrate alphabet into a variety of activities
- recognize, name, and sequence days of the week and months of the year
- use basic weather vocabulary and organize the months of the year by season
- identify and describe immediate and extended family members
- identify and use phrases to describe clothing
- recognize time by hour, half-hour, quarter-hour, and digital format
- identify selected parts of the body
- identify and describe classroom objects and their uses
- identify rooms of a house and basic furniture
- identify, classify, and describe various food and beverages
- identify household pets and domestic, farm, and zoo animals
- identify means of transportation
- identify selected professions and places in the community

#### B - Culture

- locate and name target language countries on a map or globe

## **5th Grade Foreign Language**

### **B - Culture** *(continued)*

- identify holidays and traditional celebrations of the target language cultures
- explore similarities and differences among a variety of cultures
- explore national symbols and features of target language countries
- identify significant people from the target language cultures

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

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

## 5th Grade Foreign Language

### Modern Languages Level C

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#### A - Basic Communication

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

#### B - Culture

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

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

- identify connections to student learning in other subject areas
- identify and compare basic language features
- identify comparisons of the target culture(s) with the students' culture



## **5th Grade Foreign Language**

### **C - Connections, Comparisons, and Communities** *(continued)*

- identify where students can encounter the target language beyond the classroom setting

## 5th Grade Health and PE

### Health

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#### A - First Aid

- comprehend first aid concepts, related to health promotion and disease prevention, to enhance health
- demonstrate the ability to practice health-enhancing behaviors related to first aid and to avoid or reduce health risks

#### B - Safety

- demonstrate the ability to use decision-making skills for safety to enhance health
- demonstrate the ability to practice health-enhancing behaviors for safety and to avoid or reduce health risks

#### C - Personal Care

- comprehend concepts, related to personal care and disease prevention, to enhance health
- analyze the influence of family, peers, culture, media/technology, and other factors on personal-care issues
- demonstrate the ability to access valid information, related to personal care, to enhance health
- demonstrate the ability to use decision-making skills, related to personal care, to enhance health
- demonstrate the ability to use goal-setting skills, related to personal care, to enhance health

#### D - Disease Prevention

- comprehend concepts, related to health promotion and disease prevention, to enhance health

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

- demonstrate the ability to use decision-making skills, related to tobacco, alcohol, and drugs, to enhance health
- analyze the influence of family, peers, culture, media/technology, and other factors, related to tobacco, alcohol and drugs, on health behaviors
- demonstrate the ability to advocate for personal, family, and community health related to tobacco, alcohol, and other drugs

#### F - Nutrition

- demonstrate the ability to use nutritional decision-making skills to enhance health

## **5th Grade Health and PE**

### **F - Nutrition** *(continued)*

- demonstrate the ability to practice health-enhancing behaviors, related to nutrition, to avoid or reduce health risks
- demonstrate the ability to advocate for personal, family, and community health-related to nutrition

### **G - Emotional Expression/Mental Health**

- comprehend concepts related to mental health promotion to enhance health
- demonstrate the ability to use interpersonal communication skills to enhance mental health and to avoid or reduce health risks

### **H - Family Life**

- comprehend family life concepts, related to health promotion and disease prevention, to enhance health
- analyze the influence of family, peers, and culture on health behaviors related to family life

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

- comprehend anatomical concepts related to health promotion and disease prevention to enhance health

## 5th Grade Health and PE

### Physical Education

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#### A - Fitness

- participate regularly in physical activity in order to achieve a healthy level of physical fitness
- achieve and maintain a health-enhancing level of physical fitness

#### B - Motor Skills and Movement Patterns

- demonstrate competency in motor skills and movement patterns needed to perform a variety of activities

#### C - Movement Concepts and Principles

- demonstrate an understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities

#### D - Personal and Social Behavior

- exhibit responsible personal and social behavior that respects self and others in physical activity settings
- value physical activity for health, enjoyment, challenge, self-expression, and/or social interaction





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