

Grade 4 Parent's Guide to Marking Period 4

During Marking Period 4, students in Grade 4 receive instruction on the concepts and skills described below.

PLEASE NOTE: Skills and Concepts in *Italics Are Taught but Not Graded on the Report Card*.

MATHEMATICS

Measurement and Data

- 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.
- Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
 - 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.
 - An angle that turns through *n*-degree angles is said to have an angle measure of *n* degrees.
- Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
- 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).

Numbers and Operations in Base Ten

- Fluently add and subtract multi-digit whole numbers, using the standard algorithm.
- Multiply a whole number of up to four digits by a one-digit whole number, and multiply two 2-digit numbers, using strategies based on place value and the properties of operations.
 - Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- 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.

Numbers and Operations Fractions

- Use decimal notation for fractions with denominators 10 or 100.
 - For example, rewrite 0.62 as

- $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.
- 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).

Operations and Algebraic Thinking

- Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted.
 - Represent these problems using equations with a letter standing for the unknown quantity.
 - Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- 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.

Geometry

- Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
- 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.
- 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.

READING

Reading Comprehension: Literature

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- Determine the theme of a story, drama, or poem from details in the text; summarize the text.
- 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).
- By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the Grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Comprehension: Informational

- Determine the main idea of a text and explain how it is supported by key details; summarize the text.

- 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.
- Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a Grade 4 topic or subject area.
- 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.
- Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
- Explain how an author uses reasons and evidence to support particular points in a text.
- By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the Grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Language: Vocabulary Acquisition and Use

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 4 topics and texts, building on others' ideas and expressing their own clearly.
- 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.
- Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context.
- Recognize and explain the meaning of common idioms, adages, and proverbs.
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).

WRITING

Informative/Explanatory

- *Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.*
- *Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.*
- *Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).*
- *Use precise language and domain-specific vocabulary to inform about or explain the topic.*
- *Provide a concluding statement or section related to the information or explanation presented.*

Narrative

- Write narratives to develop real or imagined experiences or events using effective technique,

descriptive details, and clear event sequences.

Process, Production, and Research

- Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
- With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.
- Conduct short research projects that build knowledge through investigation of different aspects of a topic
- 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.
- Draw evidence from literary or informational texts to support analysis, reflection, and research.
- 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.

Use of Language

- 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.
- Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
- 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.
- 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.

Opinion

- Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.
- Provide reasons that are supported by facts and details.
- Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).
- Provide a concluding statement or section related to the opinion presented.

SCIENCE

Physical Science

- Ask questions to determine cause and effect relationships of electrical or magnetic interactions between two objects not in contact with each other.
- Define a simple design problem that can be solved by applying scientific ideas about magnets.
- Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electrical currents.
- Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.

Engineering Design and Process

- Define a simple design problem reflecting a need or want that includes specified criteria for success and constraints on materials, time, or cost.

SOCIAL STUDIES

Civics

- Trace how the political structure in early Maryland developed and changed over time.
- Analyze the documents and democratic ideas that developed in the Maryland colony.
- Analyze the role of Maryland government regarding public policy and issues.
- Examine the early foundations, functions, and purposes of government.
- Analyze the roles of colonial government regarding public policy and issues.
- Describe individual rights and responsibilities in the United States.

Geography

- Examine the similarities and differences of regions in colonial America.
- Describe and analyze population growth, migration, and settlement patterns in colonial America.
- Explain why and how people adapt to and modify the natural environment and the impact of those modifications.

Economics

- Analyze the consequences of specialized work on interdependence, trade, and economic growth.
- Compare Native American societies in Maryland before and after European colonization.
- Analyze the chronology and the significance of key historical events leading to early settlements in colonial America.

INFORMATIONAL LITERACY

- Follow an inquiry process and connect the process to real life.
- Formulate and refine questions to meet an information need.
- Identify resources to meet the information need.
- Locate and select sources to meet the information need.
- Evaluate sources to meet the information need.
- Use specific sources to find information.
- Record data/information in a variety of formats.
- Evaluate and analyze the quality of recorded data/information to meet the information need.
- Use an appropriate and accepted citation style to create a source list.
- Use a variety of formats to prepare the findings/conclusions of the information need for sharing

ART

Creating and Connecting to Art

- Investigate diverse approaches to artmaking as inspiration to generate original ideas.
- Select and organize art elements and design principles to depict ideas about tradition.
- Select from traditional and innovative techniques and practices when using art tools media, and workspace.
- Apply feedback to revise artwork in progress and refine craftsmanship.
- Create artwork in response to a cultural tradition.
- Infer information about the time, place, and culture in which an artwork is made.

Presenting and Responding to Art

- Select an artwork for display and justify the choice with an artist's statement.
- Choose an appropriate display method and prepare selected artwork for presentation.
- Curate a group exhibition of artworks that communicates a selected theme.
- Compare images to determine stylistic and expressive qualities.
- Support personal interpretation with visual evidence from the artwork.
- Apply criteria and justify the evaluation of personal artwork and art made by others.

MUSIC

Responding to Music

- Conduct music with meter in three and four.
- Perform spirituals and explain their use and significance.
- Identify differences in two performances of the same selection of music.

Performing Music

- *Sing, demonstrating variations of dynamics and tempi with proper breath management.*
- *Perform accurately rhythmic and melodic ostinatos, while other students sing or play contrasting parts.*
- *Perform singing games and traditional dances from a variety of world cultures.*

Reading and Notating Music

- *Read and perform a simple melody on the treble staff using solfeggio or a comparable system.*
- *Notate short improvised melodies on the treble staff, using standard notation.*

Creating Music

- *Improvise simple rhythmic variations and melodic embellishments on familiar melodies, using classroom instruments.*
- *Compose and notate simple melodies, using a given rhythm.*

PHYSICAL EDUCATION

Health-enhancing Physical Fitness and Activity

- Adapt components of the FITT (Frequency, Intensity, Time, Type) principle to adjust levels of physical activity.

- Recognize the relationship between effort and improvement.

Movement Skills and Concepts

- Demonstrate proficiency in striking with implements (short and long).

HEALTH EDUCATION

Disease Prevention and Control

- *Recognize diseases as communicable and noncommunicable.*