

## 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.

### 4/5 MATHEMATICS

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#### Numbers 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, rectangular arrays, and/or area models.

#### Numbers and Operations Fractions

- Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.
- Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (e.g., by using visual fraction models or equations to represent the problem).
  - Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.

#### Operations and Algebraic Thinking

- Generate two numerical patterns using two given rules.
  - Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.
  - For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.

#### Geometry

- Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates.
  - Understand that the first number indicates how far to travel from the origin in the direction of one axis.
  - Understand that the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond.
- 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.

- Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.
  - For example, 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.

### READING

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#### 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

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### 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

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### 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

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### 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**

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- *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**

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### **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**

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### **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**

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### **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**

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### **Disease Prevention and Control**

- *Recognize diseases as communicable and non-communicable.*