

During Marking Period 1, students in Grade 5 receive instruction on the concepts and skills described below.



MATHEMATICS

Operations and Algebraic Thinking

- Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without calculating.

Numbers in 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 of what it represents in the place to its left.
- Read, write, and compare decimals to thousandths.
- Fluently multiply multi-digit whole numbers using the standard algorithm.
- 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.

Measurement and Data

- 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.
- Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems.
- Find 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.

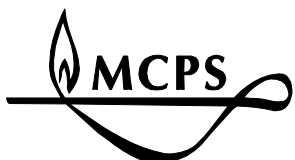


READING

Literature

- 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 from details in the text, including how characters in a story respond to challenges; summarize the text.
- Compare and contrast stories in the same genre; compare and contrast two or more characters, settings, or events in a story, drawing on specific details in the text.
- 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 fit together to provide the overall structure of a particular story.
- 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.
- Read and comprehend literature appropriately complex for Grade 5.

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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 and scientific text, based on specific information in the text.
- Compare and contrast the overall structure of events, ideas, concepts, or information in two or more texts presented with sequential text structure.
- 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.
- Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
- Read and comprehend informational text appropriately complex for Grade 5.

Language: Vocabulary Acquisition and Use

- Engage effectively in a range of collaborative discussions on Grade 5 topics and texts, 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.
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on Grade 5 reading.
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition).

**WRITING****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, provide logically ordered reasons that are supported by facts and details, provide a concluding statement or section and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
- Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).

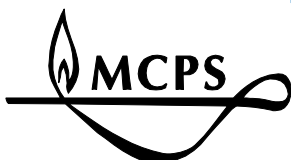
Informative/Explanatory

- Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- Introduce a topic clearly; provide a general observation and focus; develop the topic with facts, definitions, concrete details, quotations, and group-related information logically; provide a concluding statement or section; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- Use precise language and domain-specific vocabulary to inform about or explain the topic.

Narrative

- Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
- Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally; use narrative techniques such as dialogue, description, and pacing; and provide a conclusion that follows from the narrated experiences or events.
- Use a variety of transitional words, phrases, and clauses to manage the sequence of events.

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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, editing, rewriting, or trying a new approach.
- 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.
- 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.
- 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 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.
- 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
- Compare and contrast the varieties of English (e.g., dialects, registers) used in stories.

**SCIENCE****Physical Sciences**

- Make observations and measurements to identify materials based on their properties.
- Measure and graph quantities to provide evidence that, regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.
- Develop a model to describe that matter is made of particles too small to be seen.
- Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

Engineering Design and Process

- Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
- Generate and compare multiple possible solutions to a problem, based on how well each is likely to meet the criteria and constraints of the problem.
- Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.
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**SOCIAL STUDIES****Economics**

- Explain that people made choices because resources were limited relative to economic wants for goods and services in colonial America.
- Analyze how limited economic resources were used to satisfy economic wants in colonial America.
- Describe the types of economic systems in colonial America.

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History

- Examine the consequences of interactions among groups and cultures in Maryland.
- Explain the political, cultural, economic and social changes in Maryland during the early 1800s.
- Analyze the growth and development of colonial America.
- Analyze the causes and effects of the American Revolution.

**INFORMATION LITERACY**

- Evaluate and analyze the quality of recorded data/information to meet the information need.
- Formulate and refine questions to meet an information need.
- Identify, locate, select, and evaluate resources to meet the information need.
- Record data/information in a variety of formats.
- Use a variety of formats to prepare the findings/conclusions of the information need for sharing.
- Use an appropriate and accepted citation style to create a source list.

**ART****Creating and Connecting to Art**

- Select and use visual art processes to interpret and express ideas in art and other disciplines.
- Safely manipulate and share art media and tools.
- Organize the elements of art and principles of design: pattern, repetition, contrast, rhythm, movement, balance, unity, and emphasis to create artworks in response to what is observed or seen.

Presenting and Responding to Art

- Analyze how physical qualities of people, animals, and objects are represented through the elements of art.
- Analyze and interpret the content of selected works of art and compare ways in which artists of different times and places express ideas and feelings about human experience.
- Identify artistic styles and forms of expression from different times and places used to create visual art.
- Analyze a variety of artworks to determine similarities and differences in theme, content, form, and style.

**MUSIC****Performing Music**

- Perform simple chordal accompaniments while other students sing or play contrasting parts.
- Sing or play in groups, blending timbres and matching dynamic levels.

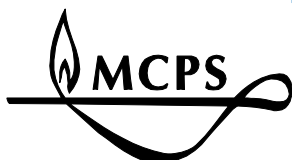
Reading and Notating Music

- Read and perform a simple melody on the treble staff in different keys using solfeggio or a comparable system.

Responding to Music

- Identify specific instruments by sight and sound.
- Conduct music in compound meter.
- Listen to and describe how selected works from standard music literature correspond to specific historical events.

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PHYSICAL EDUCATION

Health-Enhancing Physical Fitness and Activity

- Establish and modify personal physical activity goals while monitoring progress toward achievement.
- Recognize and identify the components necessary to design a fitness plan.
- Examine an aerobic workout and the effect on heart rate (warm-up, aerobic, cool down phases).
- Calculate and perform activities within the target heart rate.
- Assess personal level of cardiorespiratory fitness through systematic approach using a standardized fitness test.
- Analyze cardiorespiratory fitness identified by standardized fitness tests and list physical activities to achieve individualized personal goals.
- Examine and compare individual muscular strength and muscular endurance.
- Examine and compare individual flexibility.

Movement Skills and Concepts

- Show that skills will develop with practice over time (i.e., throwing, catching, kicking, striking).
- Refine skills needed in catching, tossing, and throwing.
- Refine skills needed in striking with body parts and implements.
- Demonstrate controlling the ball while dribbling with hands.
- Demonstrate controlling the ball while dribbling with feet.



HEALTH EDUCATION

Mental and Emotional Health (MH)

- Recognize and apply effective communication skills.
- Examine emotions and responses to various situations.
- Develop strategies to promote components of personal well-being.
- Apply the decision-making process to personal issues and problems.
- Recognize time management as an effective stress-management skill.

Alcohol, Tobacco, and Other Drugs (ATOD)

- Identify safe practices for using prescription and over-the-counter drugs.
- Develop and apply skills to resist pressure to use tobacco.
- Identify and examine physical, psychological, and social, consequences of alcohol use.
- Develop and apply skills to resist pressure to use alcohol.
- Identify marijuana as a psychoactive and illegal drug.
- Develop and apply skills to resist pressure to use marijuana.



THINKING AND ACADEMIC SUCCESS SKILLS

The **Thinking and Academic Success Skills** of flexibility and collaboration are embedded in instruction.

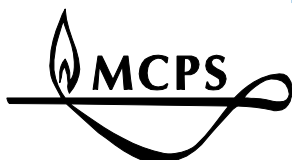
Flexibility – Being open and responsive to new and diverse ideas and strategies and moving freely among them.

- Demonstrate adaptability by changing ideas, questions, resources, or strategies when presented with evidence

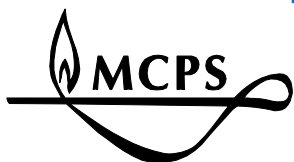
Collaboration – Working effectively and respectfully to reach a group goal.

- Solicit and respect multiple and diverse perspectives to broaden and deepen understanding.
- Identify and analyze options for sharing responsibility to reach a group goal.
- Support group decisions with criteria.

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MONTGOMERY COUNTY PUBLIC SCHOOLS
ROCKVILLE, MARYLAND