



What Your Child Will Learn in Grade 5

HOWARD COUNTY
PUBLIC SCHOOL SYSTEM

2012-2013

Includes *How to Help Your Child at Home*

COMMON CORE STANDARDS

The Common Core State Standards Initiative is a state-led effort coordinated by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO). The standards were developed in collaboration with teachers, school administrators, and experts to provide a clear and consistent framework to prepare our children for college and the workforce.

These standards define the knowledge and skills students should have within their K-12 education experience so that they will graduate from high school able to succeed in entry-level, credit-bearing academic college courses and in workforce training programs. The standards are informed by the highest, most effective models from states across the country and countries around the world. They provide teachers and parents with a common understanding of what students are expected to learn and provide appropriate benchmarks for all students, regardless of where they live.

Source: <http://www.corestandards.org/about-the-standards>

MARYLAND COMMON CORE STATE CURRICULUM

Following the adoption of the Common Core Standards, the Maryland Department of Education launched a broad-based, year-long process to analyze the new Standards and compare the alignment of the existing State Curriculum to the Common Core State Standards. As a result, the Maryland Department of Education developed the Maryland Common Core Curriculum Frameworks. These Frameworks in English/Language Arts and Mathematics define the essential skills and knowledge that students need to know and be able to do in order to achieve the academic goals of the Common Core State Standards. The Frameworks are the foundation of Maryland's new Curriculum and have guided the development of curriculum resources.

The Common Core State Standards:

- Are evidence-based.
- Are aligned with college and work expectations.
- Are clear, understandable, and consistent.
- Include rigorous content and application of knowledge through high-order skills.
- Build upon strengths and lessons of current state standards.
- Are informed by other top performing countries, so that all students are prepared to succeed in our global economy and society.

What Your Child Will Learn

Language Arts

Demonstrate Phonics and Word Recognition

- Use combined knowledge of all letter-sound correspondences, syllabication patterns (e.g., when two consonants come between two vowels in a word, divide syllables between the consonants like *bor-der*) and morphology (e.g., roots, prefixes, and suffixes) to read unfamiliar words with multiple syllables.

Demonstrate Fluency

- Read with sufficient accuracy and fluency to support comprehension.

Demonstrate Comprehension of Literature

- Quote accurately from a text when explaining what is directly stated in the text and making inferences.
- Determine a theme of a story, drama, or poem using details from the text including how characters respond to challenges and how the speaker of a poem reflects upon a topic. Summarize the text.
- Compare and contrast two or more characters, settings, or events in a text.
- Describe how a narrator's or speaker's point of view influences how the events are described.
- Compare and contrast stories in the same genre with similar themes and topics.

Demonstrate Comprehension of Informational Text

- Quote accurately from a text when explaining what is directly stated in the text and making inferences.
- Determine two or more main ideas of a text and explain how key details support those ideas. Summarize the text.
- Compare and contrast the overall structure (e.g., comparison, sequential, problem/solution) of information in two or more texts.
- Explain how an author uses reasons and evidence to support particular points in a text.
- Combine information from several texts on the same topic in order to write or speak about the subject.

Respond to Text in Writing in a Variety of Ways

- Write opinion pieces on topics or texts, supporting a point of view with reasons and information. Introduce the topic or text clearly, state an opinion, and organize the ideas to support the purpose for writing. Provide logically ordered reasons that are supported by facts and details and provide a concluding statement or section.
- Write informative texts to examine a topic. Introduce the topic clearly, provide a general observation and focus, and logically group related information. Develop the topic with facts, definitions, concrete details, quotations, and other information, and provide a concluding statement or section.
- Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. Introduce a narrator or characters and organize events naturally. Use dialogue and description and pacing, as well as concrete words, phrases and sensory images to develop experiences. Provide a conclusion that follows from the narrated experiences and events.

Demonstrate Comprehension and Collaboration When Listening

- Engage effectively in a range of collaborative discussions.
- Summarize a written text read aloud or information presented in diverse media and formats.

- Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

Present Knowledge and Ideas Through Speaking

- Report on a topic or text, tell a story, or recount an experience in an organized manner using appropriate facts and relevant and descriptive details.

Demonstrate Conventions of Standard English When Writing or Speaking

- Use punctuation to separate items in a series.
- Use a comma to separate an introductory element from the rest of the sentence.
- Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*).
- Use underlining, quotation marks, or italics to indicate titles of works.
- Spell grade-appropriate words correctly, consulting references as needed.

Acquire and Use Vocabulary

- Determine the meaning of unknown and multiple meaning words using context clues, common grade-appropriate Greek and Latin prefixes, suffixes and roots, and reference materials (e.g. dictionaries, glossaries, thesauruses).
- Demonstrate an understanding of figurative language, word relationships, and nuances in word meanings, including similes, metaphors, common idioms (e.g., *raining like cats and dogs*), adages, and proverbs (e.g. *The early bird gets the worm*).

Mathematics

Standards for Mathematical Practice

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Algebra, Patterns and Functions

- Identify, describe, extend, and create a variety of non-numeric and numeric patterns.
- State the rule for a given pattern.
- Express numeric relationships using $<$, $>$, and $=$.
- Construct and complete a function table to solve a problem.
- Identify the ordered pair for a point and locate the point for an ordered pair in the first quadrant of a coordinate plane.
- Solve for one unknown in an equation.
- Represent fractions, mixed numbers, and decimals on a number line.

Number Relationships and Computation

- Write and read numbers to 1,000,000,000.
- Identify prime numbers.
- Write decimals to thousandths.
- Calculate percents.
- Apply ratio and proportion concepts.

What Your Child Will Learn

- Apply the four basic operations to problem-solving situations (addition, subtraction, multiplication, division).
- Apply memorized facts.
- Add and subtract six-digit numbers with regrouping.
- Multiply three-digit by two-digit numbers.
- Divide four-digit numbers by two-digit with remainders.
- Add and subtract unlike fractions.
- Write fractions as mixed numbers.
- Add, subtract, and multiply decimals.

Geometry

- Describe characteristics of shapes (including congruency, similarity, and symmetry).
- Identify supplementary angles.
- Identify equilateral, isosceles, and scalene triangles.

Measurement

- Calculate perimeter, area, and volume.
- Measure and construct angles with a protractor.
- Choose the appropriate unit of measurement, estimate, then measure.
- Interpret a time schedule.
- Rename measurements in equivalent forms.

Data Analysis and Probability

- Display data, observe patterns, and make predictions.
- Collect and interpret data in double bar graphs, line graphs, and stem and leaf plots.
- Interpret and conduct surveys; determine a sample for a population.
- Determine a method for collecting, organizing, and analyzing data.
- Observe patterns, make predictions, and apply basic probability concepts to problem-solving situations.
- Express probability as a fraction ranging from zero to one.
- Identify theoretical and empirical probability.
- Determine independent events.

Science

Life Science: Ecosystems

- Identify components of an ecosystem.
- Explain how environmental conditions limit the kinds of living things that can survive.
- Cite evidence that living organisms change environments in ways that can be either beneficial or detrimental to themselves and other living organisms.
- Describe the water cycle.
- Explain how human use of renewable and non-renewable natural resources can impact the environment.

Earth and Space Science

- Use models to describe celestial events caused by Earth's rotation on its axis and Earth's revolution around the sun.
- Describe the physical properties of comets, asteroids, and meteors.
- Recognize that the Sun serves as the main source of energy that powers the water cycle.
- Conduct a simulation to describe the water cycle and explain its

importance to the survival of living things.

- Compare surface water flow and groundwater flow and identify their significance in the water cycle.
- Conduct investigations to determine the properties of bodies of water, and the effects those properties have on organisms.

Physical Science: Matter

- Identify, compare, and classify matter according to solids, liquids, and gasses.
- Observe and describe physical and chemical properties of matter.
- Describe interactions of matter.
- Describe the effect of heat on matter.
- Observe and describe physical and chemical changes in matter.
- Identify the physical properties of mixtures and solutions.

Physical Science: Force and Motion

- Describe and compare the motion of objects using distance traveled, time, direction, and speed.
- Conduct investigations to explain that changes in motion of an object are determined by the mass of the object and the amount of force applied to it.
- Investigate and cite examples of stored energy and energy in motion (potential and kinetic energy).

Social Studies

Unit 1: Colonial America

Students will:

- Describe the religious, political, and economic motives of individuals who migrated to North America and the difficulties they encountered.
- Describe interactions between early settlers and Native Americans including examples of compromise or conflict.
- Describe the geographic characteristics of early settlements in Colonial America.
- Compare the political, economic, and social lives of people in New England, Mid-Atlantic, and the Southern colonies.
- Describe the establishment of slavery and how it shaped life in Colonial America.
- Describe the contributions of significant individuals and groups to the development of Colonial America.

Unit 2: American Revolution

- Describe the causes of the American Revolution by identifying and sequencing key events between the French and Indian War and the American Revolution.
- Describe the effects of British taxation on the colonial economy.
- Analyze how conflicts affected the relationship between the Patriots and the Loyalists.
- Examine the contributions of people associated with the drafting of the Declaration of Independence and the Constitution.
- Describe the significance of principles of the Declaration of Independence.
- Explain the key factors that allowed the American colonies to defeat Britain in the Revolutionary War.

What Your Child Will Learn

Unit 3: Building a New Nation

- Identify how democratic principles such as the rule of law, consent of the governed, representative democracy, and the limitation of power influenced our founding documents.
- Explain the characteristics of limited and unlimited government.
- Analyze the principles articulated in the Articles of Confederation and the successes and failures in meeting the challenges of governing.
- Describe the historical developments that led to the writing of the Constitution and Bill of Rights.
- Explain the contributions of people associated with the drafting of the Constitution and the significance of the principles of the U.S. Constitution.
- Compare the system of government under the Articles of Confederation and the Constitution.

Unit 4: We the People

- Describe the three branches of government and their individual powers and responsibilities, such as separation of powers and checks and balances.
- Describe the power and responsibility of the Supreme Court including the power of judicial review.
- Give examples of how powers are distributed in the federal system.
- Describe the significance of the Bill of Rights.
- Describe responsibilities associated with certain basic rights of citizens such as freedom of speech, religion, and the press, and why these responsibilities are important.
- Describe ways people can participate in the political process including voting, petitioning elected officials, and volunteering.
- Discuss current events related to the government and the rights/responsibilities of citizens.

Health

Social and Emotional Health

- Identify sources and symptoms of stress and the effect on health.
- Develop constructive, age-appropriate ways to manage stress.
- Describe appropriate responses to emotions.
- Apply a decision-making model to personal issues and problems.
- Explain the importance of accepting responsibility for personal health behaviors.
- Investigate one component of personal wellness and develop a plan for positive self-change.

Tobacco, Alcohol and Other Drugs

- Describe and practice effective refusal skills.
- Identify and practice ways to deal with peer pressure.
- Identify the harmful effects of tobacco, alcohol and marijuana.
- Discuss media influences on tobacco and alcohol products.
- Distinguish between internal and external influences on use of tobacco, alcohol and marijuana.
- Identify strategies to promote a drug-free lifestyle.
- Identify effective resistance skills.

Puberty Education

- Identify ways to communicate issues related to puberty with the family.
- Describe the role society plays in the perception of normal body image.

- Describe how puberty affects the male and female body.
- Examine the effects of puberty on emotional and social growth.
- Examine the transition from behavior and attitudes of childhood to behavior, attitudes, and responsibilities of the adolescent.

Safety, First Aid, and Injury Prevention

- Discuss household product safety.
- Describe how conditions of the environment affect personal health.
- Identify strategies for the prevention and intervention of sexual child abuse.

Educational Technology

Technology Operations and Concepts

- Identify and describe the basic functions and parts of a computer system such as a monitor, keyboard, mouse, and CD-ROM or DVD drive.
- Store and save data on electronic devices with assistance.

Digital Citizenship

- When researching, list appropriate, copyrighted electronic sources.
- Respect information privacy, using and altering information only when authorized.
- Abide by copyright laws involving software use.

Communication and Collaboration

- Become familiar with keyboarding functions.
- Use word processing software to create and print documents.
- Use a graphics program to create an original picture.
- Create a document that includes words and pictures.
- Use a graphing program, with assistance, to construct tables and graphs.
- Create a multimedia presentation using various features (such as text and images).
- Recognize technology's role in telecommunication.
- Communicate ideas or information using technology.
- Use various media and formats for multiple purposes.

Research and Information Fluency

- Identify, obtain, and use information from electronic data sources such as CD-ROMs, databases, and the Internet.

Critical Thinking, Problem Solving, and Decision Making

- Solve real world problems using technology as a tool.
- Make informed decisions using technology as a tool.

Creativity and Innovation

- Demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

What Your Child Will Learn

Art

Drawing

- Use lines and drawing techniques to represent forms in the environment.
- Apply drawing techniques to show a center of interest.
- Use drawing tools and techniques to unify a composition.

Painting

- Identify and organize colors into groups or schemes.
- Select and use a color scheme to represent a mood or meaning in a painting.
- Use painting techniques and color theory to show a center of interest in a composition.

Printmaking

- Repeat art elements to achieve unity in printmaking.
- Select and apply ways to show a center of interest within a composition using a relief or stencil method.

Sculpture

- Identify and apply sculptural techniques and design principles that have been used in three-dimensional forms.
- Describe and use additive and subtractive approaches to make three-dimensional forms.
- Identify and use techniques to achieve repetition in the design and construction of a sculpture that moves.

Crafts

- Use tools and techniques to emphasize surface texture in a craft object.
- Identify and use several approaches in making a single craft object.

Music

Melody and Pitch

- Write simple melodic patterns from dictation using quarter, eighth, half and whole notes, and corresponding rests (melodic range of five notes, two measures).
- Notate individually created melodies on the treble staff using standard notation.
- Read and perform simple pitch notation on the treble staff in the Key of F and G major using solfeggio or comparable system.
- Perform, accurately and independently, melody parts while other students sing or play on contrasting parts.

Harmony and Texture

- Sing songs accurately in simple two-part harmony using a two-staff system.
- Read standard chord symbols and play the repeated chords on a classroom instrument (I, IV, and V).

Tone Color

- Identify by sight and sound: flute, clarinet saxophone, trumpet, trombone, tuba, violin, cello, timpani, bass drum, snare drum, cymbals, and xylophone.
- Identify instruments by sight and sound from other cultures, such as steel drums, pan-pipes, conga drums, gong, tabla, sitar, and guitar.
- Describe sounds heard with attention to the tone color (same, step, and skip).
- Listen to and identify soprano, alto, tenor, and bass in two-part music.

Tempo

- Sing and play a variety of music at a given tempi.

Rhythm

- Perform accurately simple rhythm at sight from standard notation, eighth rest, one eighth note, two sixteenth notes connected, and two sixteenth notes and eighth notes connected.
- Perform accurately rhythmically instrumental parts while the other students sing or play contrasting parts.

Movement

- Perform improvised movements to communicate meaning or feeling in music.
- Conduct music in meter of three.

Dynamics

- Sing and play in a group matching dynamic levels and responding to the conducting cues of the teacher.
- Incorporate dynamic variations in a performance.

Form

- Recognize and perform a variety of forms.

Physical Education

Movement

- Throw a variety of objects with accuracy and force (frisbee, basketball, football).
- Use a striking pattern, with a partner, to keep a ball going.
- Dribble a ball while preventing an opponent from stealing it.
- Observe, analyze, and correct errors in personal movement patterns.

Attitude

- Maintain control (strategies and skills) while in a challenging situation (teamwork).
- Accept the skills and abilities of others.
- Assess performance problems fairly.

Fitness

- Regularly participate in health enhancing physical activity.
- Keep a record of heart rate before, during, and after vigorous physical activity.
- Participate in a health-related personal fitness test to work toward achieving fitness scores at an acceptable level (muscular strength, flexibility, endurance, body composition, and aerobic capacity).
- Assess physical activity by using pedometers to count steps and measure activity times.



Gifted and Talented (G/T)

The G/T Program provides a continuum of services that include the G/T Mathematics Program, Curriculum Extension Units, Research Investigations, and Instructional Seminars. G/T resource teachers provide instruction for participating students.

Library Media

Inquiry Process

- Identify information needs.
- Create, refine, and use criteria to guide the research process.
- Follow systematic problem-solving steps using the Big6 process.

Locate and Evaluate Resources and Sources

- Identify the sections of the library media center and the attributes of the resources in each section.
- Identify and use a wide variety of resources.
- Use the library media center's catalog to locate sources to meet the information need.
- Evaluate potential sources for the information need.
- Use text features to select appropriate sources.
- Identify and follow the district's Acceptable Use Policy and school-based computer use rules.
- Learn to use safe practices online.

Find, Generate, Record, and Organize Data/Information

- Use keywords for finding answers to questions.
- Utilize effective search strategies for collecting relevant information from sources.
- Use technology tools to find, record, and organize data/information within sources.
- Learn to recognize information being sought in resources.
- Differentiate between fact and opinion.
- Avoid plagiarism by correctly recording relevant information and keeping track of sources used.
- Use a variety of formats for recording and organizing data/information.
- Create a source list using an accepted citation style.
- Match appropriate format with content to be organized.

Interpret Recorded Data/Information

- Identify the main ideas of recorded information.
- Apply critical thinking and problem-solving strategies.
- Create new understanding and knowledge related to the information need.

Share Findings/Conclusions

- Use a variety of formats to share information learned.
- Discuss and apply fair use, copyright laws, and Creative Commons attributions.
- Reflect on and provide feedback about the research process and the information product.

Literature Appreciation and Life-long Learning

- Read, listen to, view, and discuss stories that reflect human experiences.
- Make literature connections to self, other literature, multimedia, and the world.
- Use libraries for personal or assigned needs.
- Utilize library circulation procedures and policies to access reading materials.
- Locate and select literature and/or multimedia in a variety of genres.
- Recognize the connection between reading and being a lifelong learner.

ART

- Set aside an area for artwork to be done.
- Provide a variety of tools and materials for your child to use, such as colored pencils, yarn, crayons, water-based markers, water colors, fabric scraps, tissue paper, weaving and stitchery supplies, blunt-tipped scissors, paper, and glue. Encourage your child to experiment with new approaches to his or her art work.
- Praise and display your child's work in special places.
- Consider encouraging your child to give their artwork as gifts to friends, neighbors, relatives, or a service agency.
- Work with your child to make drawings from observation, imagination, and memory.
- Encourage your child to make artwork often, possibly seeking opportunities for outside classes or independent instruction.
- Visit galleries and museums; look at the ways artists show faces and figures.
- Visit the library and take a look at books that explain ways to use a variety of tools and techniques.

EDUCATIONAL TECHNOLOGY

- Help your child identify the use of technology in everyday life such as bar code readers at the grocery store, automatic teller machines, smart phones, and computerized gas pumps.
- Help your child use software programs appropriate for Grade 5, such as *Microsoft Office*, *Pixie*, *Type to Learn*, and *Kidspiration*.
- Practice computer skills with your child at home or at the library.
- Visit appropriate websites to help support the classroom instruction. The school system provides online resources to assist students (*SIRS Discoverer*, *Culture Grams*, and *World Book Online*). Check with the library media specialist at your school for access information.

HEALTH

- Discuss sources and symptoms of stress in children and strategies to manage stress.
- Emphasize the importance of using household products according to label instructions (under adult supervision).
- Discuss the harmful effects of tobacco, alcohol, and other drugs on the body.
- Role-play situations in which your child can practice refusing to become involved in negative situations.
- Discuss puberty issues with your child.
- Monitor your child's use of the Internet.

**Make mistakes
a part of learning!**

HOW TO HELP YOUR CHILD at Home

LANGUAGE ARTS/LIBRARY MEDIA

- Read as often as possible with your child. Help your child use different ways to read unfamiliar words. When your child comes to an unfamiliar word say:
 - What would make sense in the sentence?
 - What parts of the word do you recognize?
 - Read to the end of the sentence and come back.
 - Think about what word would fit.
- Talk about books *before*, *during*, and *after* reading. Predict what might happen. Think about the characters and events. Have your child discuss what the author did to make the book interesting to read.
- Have spelling resources for your child to use at home (personal spelling journal, children's dictionary).
- Encourage your child to apply spelling strategies and patterns he or she has learned.
- Provide an area for writing with materials and resources (pencils, pens, different kinds of paper, eraser).
- Assist your child in planning and organizing ideas before beginning to write. Then help your child refer to the plan when writing. Offer suggestions about the ideas, details, and organization of the writing before correcting punctuation, spelling, and capitalization.
- Assist your child when writing to include relevant information, details, and descriptive words.
- Encourage your child to independently read at least 25 books annually.
- Establish a routine at home for reading.
- Read an action story or tale of adventure to replace an evening TV program.
- Be a role model. Let your child see you read for pleasure.
- Practice using the Big6 model for problem solving everyday life situations.
- Obtain a library card for your child, and schedule regular family visits to the library.
- Encourage your child to participate in age-appropriate activities sponsored by the public library.
- Encourage your child to utilize online homework help provided by Howard County Library.
- Look for computer programs that encourage reading.

MATHEMATICS

- Listen to your child explain how he or she solves math problems.
- Help your child read and write numbers up to 1,000,000,000.
- Help your child write and say decimals in the thousandths (.462 = four hundred sixty-two thousandths).
- Contact your child's teacher for a list of current computation skills and problem-solving strategies being taught. Review and practice with your child.
- Find opportunities to do math every day.
- Work on puzzles.
- Explore mathematics in books that you read together.
- Discuss the math that can be found in the media (new reports, newspaper articles, magazines).
- Make mistakes a part of learning.
- Use computers and calculators to solve problems.
- Explain ways to know if an answer to a math problem is reasonable.
- Help your child review memorized facts for addition, subtraction, multiplication, and division.

MUSIC

- Encourage your child to follow up on special interests by researching composers, periods of music, and related topics by using the Internet, encyclopedias, and library books.
- Encourage your child to participate in school chorus.
- If your child expresses particular interest, allow him or her to take private lessons on an instrument and to elect instrumental music at school.
- If your child expresses particular interest, provide opportunities for him or her to participate in outside musical groups, orchestras, community theater, and summer camps.
- Provide opportunities to attend local concert events (Merriweather Post Pavilion, Centennial Park, Howard Community College Smith Theatre, Saturday Summer Series at the Meyerhoff, Oregon Ridge Summer Concerts, Columbia Festival of the Arts, child-appropriate shows at area dinner theatres). Discuss the performances, evaluate the selection of music and the effectiveness of the performance.

PHYSICAL EDUCATION

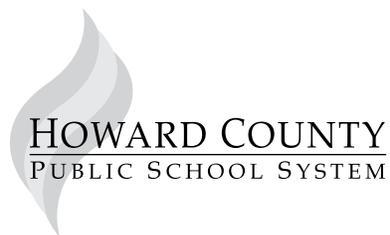
- Ask your child to perform a successful dribble by using his or her hands and feet with a ball of choice.
- Have your child practice control by using a tennis racquet and ball to continuously bounce the ball straight up and down.
- Encourage your child to throw a frisbee or ball, demonstrating accuracy and force.
- Have your child participate regularly in a physical activity to develop a healthy lifestyle.
- Discuss safety with your child in play and sports activities.

SCIENCE

- Use telescopes and binoculars to observe the night sky.
- Work with your child to determine ways to conserve water in the home and community.
- Share articles and news reports with your child that discuss the impact people can have on the quality of water in local and global waterways.
- Discuss various forms of energy that move objects or cause something to happen.

SOCIAL STUDIES

- Read books about America in colonial and revolutionary times.
- Discuss with your child principles of American government such as the voting process and majority rule.
- Discuss ways each person can take responsibility for protecting the environment.
- Emphasize the importance of recognizing the dignity and worth of all people.
- Visit some historic sites, such as Philadelphia, Colonial Williamsburg, and Washington D.C., to learn more about the founding of the United States of America.



10910 Clarksville Pike • Ellicott City, MD 21042
410-313-6600 • www.hcpss.org

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