



# What Your Child Will Learn in Eighth Grade

## **Greetings Eighth Grade Parents!**

In Harford County Public Schools (HCPS), we are committed to ensuring that every child graduates having received an outstanding education. We know that you as parents are integral to this process and want you to know the role that the Maryland College and Career-Ready Standards (MCCRS) serve in the implementation of our curriculum.

## **How do the MCCRS relate to the Common Core State Standards?**

In school year 2013-2014, Maryland implemented the MCCRS in all schools across the state. Maryland's new standards are based on the Common Core State Standards (CCSS), a set of consistent, high-quality academic goals in English language arts and mathematics, adopted by Maryland and more than 40 other states. The MCCRS define the knowledge and skills all students should master by the end of each grade level in order to graduate from high school fully prepared to enter college and the workforce.

## **What is the connection between the MCCRS and the HCPS curriculum?**

The MCCRS guide HCPS instructional leaders to develop and refine curriculum so that teachers consistently create lessons that give our students the most essential knowledge and skills they need to progress academically.

## **What will lessons look like in the classroom?**

Teachers are encouraged to create engaging and interactive lessons, integrating technology when appropriate. Our teachers provide the best environment for learning so that our children grow as learners but also gain the content and skills necessary to become productive members of our workforce and society.

## **How do the MCCRS affect all content areas?**

The MCCRS clearly define benchmarks for learning in reading, writing, and mathematics. The literacy expectations for English language arts are clearly outlined, but just as importantly, so are the expectations for literacy in all content areas. For students to be college and career ready, they must be proficient in reading and writing complex informational and technical texts. This means that instruction in EVERY classroom focuses on both the critical content as well as the reading and writing skills necessary to demonstrate a comprehensive understanding of that discipline. In mathematics, students who demonstrate exceptional proficiency with both content and application may be ready for advanced work in middle school.

## **How can you support your child at home?**

As you review this brochure, think about ways you can support your child's learning at home. We need your help as we implement our curriculum and hold students to the highest standards of academic performance. Through a strong partnership with you, we will ensure that your child is fully prepared for success in school, work, and life.

# A Sample of What Your Child Will Learn

## ENGLISH LANGUAGE ARTS

### Reading

- Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
- Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.
- Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.

### Writing

- Write arguments to support claims with clear reasons and relevant evidence. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
- Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
- Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

### Speaking and Listening

- Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.

### Language

- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

## MATHEMATICS

### The Number System

- Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value.

### Expressions and Equations

- Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used.
- Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.
- Solve linear equations with rational number coefficients.

### Functions

- Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.
- Describe qualitatively the functional relationship between two quantities by analyzing a graph.

### Geometry

- Understand congruence and similarity using physical models, transparencies, or geometry software.
- Understand and apply the Pythagorean Theorem.
- Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.

### Statistics and Probability

- Investigate patterns of association in bivariate data.

### Mathematical Practices

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

# A Sample of What Your Child Will Learn

## SCIENCE

### Construct Knowledge

- Describe how the motion of atoms and molecules in solids, liquids, and gases changes as heat energy is increased or decreased.
- Compare compounds and mixtures based on data from investigations and research.
- Provide evidence to support the fact that common substances have the ability to change into new substances.

Develop an explanation of motion using the relationships among time, distance, velocity, and acceleration.

- Identify and relate formal ideas (Newton's Laws) about the interaction of force and motion to real world experiences.
- Recognize and explain that energy can neither be created nor destroyed; rather it changes form or is transferred through the action of forces.

### Apply Evidence and Reasoning

- Cite evidence to support the fact that all matter is made up of atoms, which are far too small to see directly through a microscope.
- Identify and describe the relationships among the various properties of waves.
- Cite evidence to support the fact that some substances can be separated into the original substances from which they were made.
- Describe and cite evidence that heat can be transferred by conduction, convection and radiation.
- Cite evidence supporting that electrical energy can be produced from a variety of energy sources and can itself be transformed into almost any other form of energy.

### Understand and Use Technology

- Design, analyze, or carry out simple investigations and formulate appropriate conclusions based on data obtained or provided. Use technology as appropriate.

## SOCIAL STUDIES

### Political Science

- Investigate the evolution of the United States political system as expressed in the United States Constitution.
- Analyze the impact of historic documents and practices that became the foundations of the American political system during the early national period.
- Evaluate roles and policies of the United States government regarding public policy and issues.
- Analyze the influence of individuals and groups on shaping public policy.

### Geography

- Use geographic tools to analyze geographic issues and problems prior to 1877.
- Analyze how geographic characteristics influenced the location and development of regions in the United States prior to 1877.
- Analyze the population growth, migration and settlement patterns in the United States prior to 1877.

### History

- Evaluate the importance of Jacksonian Democracy and how it represented a change in the social, political and economic life of the United States.
- Evaluate westward movement in the United States before 1877.
- Analyze patterns of immigration to the United States before 1877.
- Analyze the political, economic, and social goals of Reconstruction.
- Analyze the influence of industrialization and technological developments on society in the United States before 1877.
- Analyze the institution of slavery and its influence on societies in the United States.

### Economics

- Analyze the decisions that people made because resources were limited relative to economic wants for goods and services in America.
- Analyze economic activities, economic decisions, and specialization before and after the Civil War to evaluate the types of economic systems prior to 1877.

# A Sample of What Your Child Will Learn

## UNIFIED ARTS

### Art

- Analyze why artists may select specific design concepts to achieve intended outcomes.
- Compare ways in which themes, ideas, and issues in human experience are translated and expressed through the arts, humanities, and sciences.
- Compose art works through competent application of skills and techniques that incorporate the design principles and focus on the illusion of reality, application of color theory and sculptural techniques. Demonstrate proper use and care of art media and tools.
- Refine verbal skills and uses appropriate vocabulary to evaluate and interpret the various approaches to visual expressions and inherent symbolisms present in artworks of diverse cultures and different historical periods focusing on the art elements and principles of design.

### Music

- Demonstrate the expressive elements of music through written and oral means, and performance.
- Describe how musical expression reflects social, political, and ethical issues and determine the factors that influence musicians in historical eras and places.
- Identify and explain the relationship of music, dance, theater, the visual arts, and other disciplines.
- Explore musical ideas through simple improvisations, compositions, arrangements.
- Evaluate selected musical compositions using established criteria.

### Media

- Research using the Online Public Access Catalogue and the Dewey Decimal System to further independence.
- Increase academic integrity by analyzing and discussing various examples of dishonesty and plagiarism.
- Evaluate internet websites for scope, timeliness, reliability and authority when conducting research.

### Physical Education

- Display leadership, perseverance and excellent sportsmanship.
- Use offensive and defensive strategies for tactical games.
- Use technology to defend cardiorespiratory fitness activities and designs/performs personal fitness plan.
- Apply proper throwing and catching skills when moving.
- Display striking of a moving object using a body part and an implement based on self-evaluation.

### *A Message from the Superintendent:*

*As the last year in middle school, eighth grade is a significant milestone in your child's life. Continue to plan time to have conversations about school life with your child. As the spring approaches, work together to read the Student Education Planning Guide so that your child develops a plan for high school that matches his/her life goals. Listen carefully when your child shares his/her life situations with you and validate feelings as you redirect and guide your child into the high school years. Continue to provide quiet times to study and do school work. Encourage times where the whole family is "unplugged" and conversation can take place. Celebrate your child's initiative, individuality, and leadership skills, as these become more evident during this critical time.*

*Barbara Canavan*



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