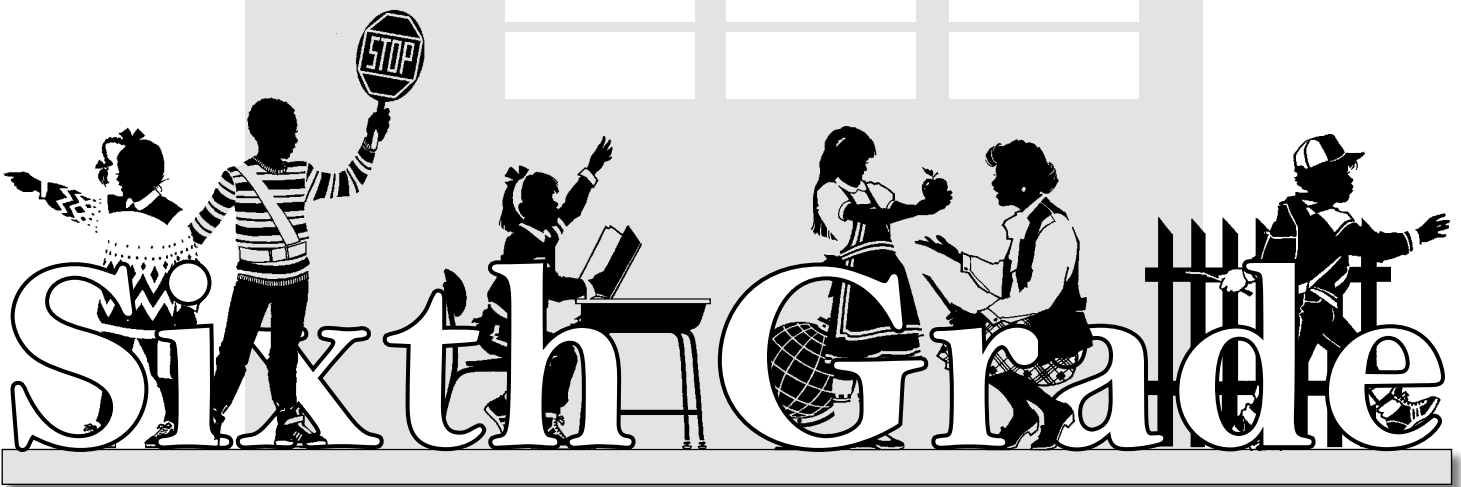


What Your Child Will Learn In



Family Guide 2009 - 2010

The purpose of this document is to give families an overview of their child's classroom learning experiences throughout the entire school year.

A child's program may differ depending on his or her instructional needs.

English

Literary Archetypes: Recurring Patterns In Literature

- ◆ Observe how recurring literary terms and motifs unify individual works.
- ◆ Use a variety of strategies for understanding text.
- ◆ Compose oral, written and visual presentations that inform, persuade and express personal ideas.

Literary Forms: Biography And Autobiography

- ◆ Examine biography, autobiography and narrative poetry as authentic sources for understanding literary elements.
- ◆ Use a variety of strategies for understanding text.
- ◆ Compose oral, written and visual presentations that inform, persuade and express personal ideas.

Literary Origin: Folklore And Legends

- ◆ Recognize that folklore preserves a community's cultural beliefs, customs and history through the oral tradition.
- ◆ Identify legends as traditional narratives of migrations, wars and heroic deeds featuring exalted human characters and exploits.
- ◆ Use a variety of strategies for understanding text.
- ◆ Compose oral, written and visual presentations that inform, persuade and express personal ideas.

Language

Recognize, recall and use grammar concepts and skills to strengthen control of oral and written language.

- ◆ Recognize the meaning, form and function of words.
- ◆ Combine sentences.
 - ◆ Using prepositional, participial, appositive and infinitive phrases.
 - ◆ Rearranging words, phrases and clauses.
 - ◆ Compose simple and compound sentences.
 - ◆ Differentiate grammatically complete sentences from non-sentences.

Comprehend and apply standard English usage and capitalization and punctuation.

- ◆ Simple and compound sentences
- ◆ Phrases - introductory appositive

Achieve sentence fluency through sentence combining and composing.

- ◆ Combine short, related sentences into more complex sentences.
 - ◆ Identify a sentence and sentence elements that can be grouped when combining related sentences.
- ◆ Identify and use basic processes for sentence combining.
 - ◆ Delete unnecessary or repetitive words.
 - ◆ Rearrange words, phrases, or clauses.
 - ◆ Add a variety of appropriate connectors.

Gifted And Talented (G/T)

Differentiation for students participating in the sixth grade G/T English Program is accomplished through an emphasis on designated G/T objectives that are outlined in the *Howard County Middle School English Essential Curriculum*. G/T English students are expected to work at an accelerated pace, to read and interpret challenging literature independently, and to formulate their own hypotheses about authors' intent and style. Sixth grade G/T English students read three full-length works for intensive study from the following choices: *Watership Down* by Richard Adams, *Anne Frank: The Diary of a Young Girl*, *The Prince and the Pauper* by Mark Twain, and *The Sword in the Stone* by T.S. White. These literary selections are reserved for G/T English because their complex sentence structure, advanced vocabulary, or difficult content present a special reading challenge.

By extending and refining knowledge, creative productions and investigations enable students to apply what they know about literature and composition to the development of original works. G/T English students maintain portfolios to assess and enhance their growth.

Reading

Reading Informational Text Strategically

- ◆ Develop and apply comprehension skills by reading a variety of self-selected and assigned print and non-print informational text, including electronic media.
- ◆ Use before, during, and after reading strategies to comprehend content textbooks and informational text.
- ◆ Identify and use text features to facilitate understanding of informational texts.
- ◆ Develop and apply knowledge of organizational patterns of informational text to facilitate understanding and analysis.
- ◆ Critically evaluate and interpret important ideas and messages in informational text.
- ◆ Understand the strategic reading process used by skilled readers.
- ◆ Compose oral, written, and visual presentations that express personal ideas, inform, and persuade.

Reading Literary Text Critically

- ◆ Use strategies for understanding the text.
- ◆ Analyze text features to facilitate understanding.
- ◆ Determine important ideas and messages.
- ◆ Analyze the author's purposeful use of language.
- ◆ Analyze literary elements to facilitate understanding and interpretation.
- ◆ Read grade-level text with both high accuracy and appropriate pacing, intonation, and expression (fluency).
- ◆ Acquire, understand, and use new vocabulary.
- ◆ Compose oral and visual presentations that express personal ideas, inform, and persuade.

Pathways to Success: Information Literacy

- ◆ Follow systematic research using a problem solving framework to investigate knowledge of self and student's relationship to personal professional pathways.
- ◆ Compose oral, written, and visual presentations that express personal ideas, inform, and persuade.

Challenge Reading

A differentiated essential curriculum for Grade 6 Challenge Reading is designed to meet the unique needs of the advanced level reader. This curriculum includes units on these topics:

- ✦ The Strategic Reader of Fiction
- ✦ The Strategic Reader of Nonfiction
- ✦ What is Information Literacy?
- ✦ Critical Thinking: The Critical Reader - The Asian Voice
- ✦ Careers Exploration

Mathematics

In Grade 6, mathematics is taught in three distinct courses. Although the mathematical content of each course is different, the following five areas of instruction are related to the content of each of the different courses:

Problem Solving

- ✦ Use problem-solving to investigate and understand mathematical content.
- ✦ Formulate problems from situations within and outside mathematics.
- ✦ Develop and apply a wide variety of strategies to solve routine and non-routine problems.
- ✦ Generalize solutions and strategies to new problem situations.

Communications

- ✦ Model situations using oral, written, concrete, pictorial, graphical and algebraic methods.
- ✦ Use the skills of reading, listening and viewing to interpret and evaluate mathematical data.
- ✦ Discuss mathematical ideas, make conjectures, and make convincing arguments.

Connections

- ✦ See mathematics as an integrated whole.
- ✦ Explore mathematics and describe results using graphical, numerical, physical, algebraic and verbal mathematical models or representations.
- ✦ Apply mathematical thinking and modeling to solve problems that arise in other disciplines and in real-life situations.

Reasoning

- ✦ Recognize and apply inductive and deductive reasoning.

- ✦ Make and investigate mathematical conjectures and arguments.
- ✦ Validate one's own thinking.

Technology

- ✦ Use appropriate technologies such as calculators, computers and the Internet to explore, compute and apply mathematical concepts in graphical, numerical and algebraic ways.
- ✦ Use technology to support and advance mathematical content.

Middle School Mathematics I

In addition to the instructional areas of problem solving, communications, connections, reasoning and technology listed above, the following content areas are developed:

Number Concepts And Operations

- ✦ Understand numbers, ways of representing numbers, relationships among numbers, and number systems.
- ✦ Understand the meaning of operations and how they relate to each other.
- ✦ Estimate and calculate decimal problems using all four operations.
- ✦ Evaluate expressions using order or operations.
- ✦ Rewrite a decimal, fraction, mixed numeral or percent in each of the other forms.
- ✦ Estimate and calculate fraction and percent problems using all four operations.

Patterns, Functions And Algebraic Concepts

- ✦ Understand various types of patterns and functional relationships.
- ✦ Evaluate variable expressions using order of operations.
- ✦ Use symbolic forms to represent and analyze mathematical situations.
- ✦ Solve simple equations using all four operations.
- ✦ Use patterns to solve problems and develop algebraic relationships.
- ✦ Graph, compare, and order integers.
- ✦ Locate and plot ordered pairs on a coordinate plane.

Geometry And Measurement

- ✦ Classify triangles using both sides and angles.
- ✦ Calculate the area and perimeter of triangles and quadrilaterals.

- ✦ Calculate the volume of rectangular prisms.
- ✦ Measure and draw geometric figures using a variety of tools and estimate angle measure.
- ✦ Understand attributes, units and systems of measurement.
- ✦ Apply a variety of techniques, tools and formulas for determining measurement.

Data Analysis, Statistics And Probability

- ✦ Organize and display data in frequency tables and stem or leaf plots.
- ✦ Interpret data from frequency tables, stem and leaf plots, and circle graphs.
- ✦ Use probability to make predictions.
- ✦ Identify and calculate the probability of independent events.

Middle School Mathematics II

In addition to the instructional areas of problem solving, communications, connections, reasoning and technology previously listed, the following content areas are developed:

Number Concepts And Operations

- ✦ Understand numbers, ways of representing numbers, relationships among numbers and number systems.
- ✦ Understand the meaning of operations and how they relate to each other.
- ✦ Use applications of fractions to solve problems.
- ✦ Use laws of exponents to simplify expressions.
- ✦ Solve real-life problems using ratios, proportions and percents.
- ✦ Write numbers using scientific notation.

Patterns, Functions And Algebraic Concepts

- ✦ Understand various types of patterns and functional relationships and extend them using geometric/algebraic representations and technology.
- ✦ Use symbolic forms to represent and analyze mathematical situations and structures.
- ✦ Evaluate variable expressions using order of operations.

- ◆ Use patterns to solve problems and develop algebraic relationships.
- ◆ Graph, compare, order, add, subtract, multiply and divide integers.
- ◆ Write and evaluate variable expressions and formulas.
- ◆ Solve one- and two-step equations.
- ◆ Solve real-life problems involving operations with integers.

Geometry And Measurement

- ◆ Identify various types of angles.
- ◆ Estimate angle measures.
- ◆ Measure and construct angles using a protractor and a compass.
- ◆ Calculate area and surface area.
- ◆ Identify, use and draw translations, rotations and reflections in the coordinate plane.
- ◆ Understand attributes, units and systems of measurement.
- ◆ Estimate and calculate length, perimeter, area, capacity and weight/mass in customary and metric units.
- ◆ Determine a missing dimension of a polygon using a scale.

Data Analysis, Statistics And Probability

- ◆ Pose questions and collect, organize and represent data to answer those questions.
- ◆ Interpret results of a survey and make predictions.
- ◆ Collect, interpret, organize and display data in a variety of formats.
- ◆ Use data analysis in authentic problem-solving situations.
- ◆ Use probabilities to make predictions.
- ◆ Identify and calculate the probability of independent events.

Pre-Algebra

In addition to the instructional areas of problem solving, communications, connections, reasoning and technology previously listed, the following content areas are developed:

Number Concepts And Operations

- ◆ Understand numbers, ways of representing numbers, relationships among numbers and number systems.
- ◆ Calculate powers of integers and square roots of perfect squares.
- ◆ Simplify numerical expressions with rational numbers.

- ◆ Use rules of exponents to simplify expressions and apply the concept of powers to scientific notation.
- ◆ Solve authentic problems involving percent.

Patterns, Functions, Properties And Algebraic Concepts

- ◆ Understand various types of patterns and functional relationships.
- ◆ Evaluate variable expressions using exponents and order of operations.
- ◆ Use symbolic forms to represent and analyze mathematical situations.
- ◆ Translate between verbal and mathematical expressions and sentences.
- ◆ Solve equations in one variable using multiple transformations.
- ◆ Write and solve proportions.
- ◆ Use patterns to complete function tables and to find algebraic relationships.
- ◆ Graph relationships that can be described by linear functions.
- ◆ Solve for the unknown in an inequality.

Geometry And Measurement

- ◆ Estimate and calculate the circumference and area of a circle.
- ◆ Estimate and calculate the circumference of composite shapes.
- ◆ Estimate and calculate the volume of a cylinder.
- ◆ State and apply angle and line relationships.
- ◆ Execute formal geometric constructions.
- ◆ Derive and apply the Pythagorean Theorem.
- ◆ Understand attributes, units and systems of measurement.
- ◆ Apply a variety of techniques, tools and formulas for determining measurement.

Data Analysis, Statistics And Probability

- ◆ Pose questions and collect, organize and represent data to answer those questions.
- ◆ Read, construct and interpret graphs and plots, using technology where appropriate.
- ◆ Analyze the results of a survey or simulation.
- ◆ Express in different forms information from surveys, charts, tables and graphs.
- ◆ Use probabilities to make predictions.
- ◆ Determine probability of independent and dependent events.

Science

The Maryland State Department of Education's Standards Committee defines science as "a body of knowledge developed through the process of investigating that is combined with thoughtful reflections guided by critical thinking skills. This body of knowledge is dynamic and has a dramatic impact on every aspect of social life."

The Howard County Public School System science program is grounded in this vision of science. Throughout the middle school science program, the concepts of science are taught in conjunction with science skills and processes in order to help students develop a deeper and richer understanding of scientific facts and principles. In Grade 6 science, students will explain the chemical and physical interactions of the environment, Earth, and the universe that occur over time.

Skills And Processes Of Science

Throughout middle school, students will refine the strategies for collecting, organizing and presenting data. They will work on identifying and applying the elements of scientific investigation. Each year, the students will have many opportunities to apply and practice all of the listed science skills and processes across the concept areas. During each unit of instruction, students are expected to demonstrate the ability to use the following processes:

- ◆ Demonstrate the ability to use proper safety procedures when conducting an investigation.
- ◆ Design, analyze or carry out simple investigations and formulate appropriate conclusions based on data obtained or provided.
- ◆ Review data from a simple experiment, summarize the data and construct a logical argument about the cause-and-effect relationships in the experimentation.
- ◆ Verify the idea that there is no fixed set of steps that all scientists follow. Scientific investigations usually involve the collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations to make sense of the collected evidence.

- ◆ Develop explanations that explicitly link data from investigations conducted, selected readings and, when appropriate, contributions from historical discoveries.
- ◆ Explain that complex systems require control mechanisms.
- ◆ Analyze, design assemble and troubleshoot complex systems.
- ◆ Analyze the value and the limitations of different types of models in explaining real things and processes.

Weather

- ◆ Cite evidence to explain the relationship between the hydrosphere and atmosphere.
- ◆ Identify and describe the atmospheric and hydrospheric conditions related to weather systems.

Geologic Processes

- ◆ Recognize and describe the internal and external structure of the Earth.
- ◆ Recognize and explain how major geologic events are a result of the movement of Earth's crustal plates.
- ◆ Differentiate among sedimentary, igneous and metamorphic rocks based upon the processes by which they are formed.
- ◆ Explain how sedimentary rock is formed periodically, embedding plant and animal remains and leaving a record of the sequence in which the plants and animals appeared and disappeared.
- ◆ Recognize and explain that fossils found in layers of sedimentary rock provide evidence of changing life forms.

Earth Systems

- ◆ Cite evidence to demonstrate and explain that physical weathering and chemical weathering cause changes to Earth materials.
- ◆ Recognize and describe that environmental changes can have local, regional and global consequences.
- ◆ Recognize and compare how different parts of the world have varying amounts and types of natural resources and how the use of those resources impacts environmental quality.
- ◆ Recognize and explain how human activities can accelerate or magnify many naturally occurring changes.

- ◆ Recognize and explain that human-caused changes have consequences for Maryland's environment as well as for other places and future times.
- ◆ Recognize and explain the impact of a changing human population on the use of natural resources and on environmental quality.

The Solar System

- ◆ Recognize that objects of our solar system are interrelated.
- ◆ Identify and describe the components of the universe.
- ◆ Identify and explain celestial phenomena using the regular and predictable motion of objects in the solar system.
- ◆ Recognize and explain how the force of gravity causes the tides.
- ◆ Analyze and extend patterns based on astronomical data.
- ◆ Recognize and explain the effects of the tilt of Earth's axis.

Gifted And Talented (G/T)

Students participating in sixth grade G/T science receive a differentiated program. Differentiation occurs when teachers preassess the students' knowledge and use curriculum compacting to accelerate the pace of instruction and increase the depth of learning.

In addition, a major goal of the middle school G/T science program is to provide an opportunity for students to learn the skills and processes of authentic science research. Students will participate in various class research projects and activities designed to help students to develop the foundation skills to produce an original science project by the end of the 8th grade year. Students will conduct a research experiment in class and present the findings of the project individually or in groups.

- ◆ Develop an organizational technique for documentation of research.
- ◆ Identify and define the following components of experimental design: hypothesis, dependent and independent variables, control group, constants and repeated trials.
- ◆ Explain the importance of background research before generating a testable hypothesis.

- ◆ Develop a set of procedures to test a hypothesis.
- ◆ Create an appropriate data table for collecting raw data.
- ◆ Identify the type of graph that best fits a set of data.
- ◆ Describe the relationship indicated by a graph or chart.
- ◆ Identify the components of a logical conclusion.
- ◆ Write a conclusion for an investigation, which connects the background research to the findings.
- ◆ Organize the scientific research in a appropriate format.

Health

Tobacco, Alcohol And Other Drugs

- ◆ Discuss the consequences of tobacco use on health.
- ◆ Explain factors that influence decisions about tobacco use.
- ◆ Demonstrate effective resistance skills and decision-making techniques.

Safety, First Aid And Injury Prevention

- ◆ Identify ways to prevent injuries.
- ◆ Describe procedures for first responders in an Emergency Action Plan.
- ◆ Describe and demonstrate intervention strategies against child abuse, bullying and teasing.
- ◆ Describe a plan for emergency preparedness.
- ◆ Identify strategies for safe Internet use.

Family Life And Human Sexuality

- ◆ Identify physical and emotional changes that occur during puberty.
- ◆ Identify the anatomy of the human reproductive system.
- ◆ Explain the physiology of the human reproductive system.
- ◆ Describe fertilization and how it relates to the menstrual cycle.

Disease Prevention And Control

- ◆ Identify the risk, protective and preventive factors for diseases.
- ◆ Describe the transmission, treatment and prevention of HIV/AIDS.
- ◆ Identify current health care issues and services available in the community.
- ◆ Describe valid criteria for the selection of health care providers.

SOCIAL STUDIES

Overview

This is the first part of a two-year program entitled Geography and World Cultures. This program provides opportunities for students to develop an understanding of geographic skills and concepts of world cultures in relation to their own. Students also learn about geographic and cultural issues, and of the cultural heritage and history of the various regions of study. Students are encouraged to gain an understanding and appreciation of other cultures, and to use geographic skills to solve problems. There are countywide local assessments administered quarterly.

Social Studies Skills

These skills and others are embedded throughout the curriculum.

- ◆ Map reading, construction and interpretation
- ◆ Historical thinking skills
- ◆ Problem solving/critical thinking
- ◆ Roles, rights and responsibilities of citizenship
- ◆ Strategic reading of social studies text
- ◆ Economic decision making
- ◆ Informative and persuasive writing
- ◆ Information literacy

Course Content

There are four units in sixth grade social studies. What follows is a summary of some of the key objectives.

The Study Of Physical And Human Geography

- ◆ Define, locate and compare major landforms and water bodies on the earth.
- ◆ Explain selected geographic terms and concepts associated with maps and their necessary components.
- ◆ Construct, interpret information, solve problems and recognize associations using maps, globes and other geographic resources.
- ◆ Describe how the Earth's rotation causes night and day and the Earth's revolution causes the change in season.
- ◆ Identify and analyze elements of culture.
- ◆ Analyze and explain how the natural environment promotes or limits human activity.

North Africa And The Middle East

- ◆ Describe how the geographic location of the Middle East and North Africa has affected its history and culture.
- ◆ Describe the major geographic and climactic features of North Africa and the Middle East.
- ◆ Identify the kinds of evidence that allows us to learn about the past.
- ◆ Explain how geographic factors such as river valleys influence the development of civilizations in the region.
- ◆ Compare and contrast the three monotheistic religions that developed in the Middle Eastern region.
- ◆ Analyze the relationships between modern conflicts and the history of this region of the world.
- ◆ Compare the patterns of life of various groups of people in this region.
- ◆ Contrast the economic characteristics of countries within this region.

Sub-Saharan Africa

- ◆ Identify the various geographic regions within Sub-Saharan Africa and describe the characteristics that make them distinct regions.
- ◆ Describe the major geographic and climactic features of Sub-Saharan Africa.
- ◆ Describe and analyze the cultural development of powerful kingdoms in West Africa.
- ◆ Describe the kingdoms of East Africa and explain their connection to the Upper Nile River Valley.
- ◆ Identify the motives of European imperialism in Africa.
- ◆ Explain how physical geography and environmental factors impeded the exploration of Africa's interior by Europeans.
- ◆ Analyze the moral conflict between ethnic loyalties and nationalism.
- ◆ Describe the effects of urbanization on traditional life in African societies.

Asia

- ◆ Describe the major geographic and climactic characteristics for a selected region in Asia.
- ◆ Describe and analyze the cultural characteristics and achievements of the Indus Valley civilizations.
- ◆ Compare the monotheistic religions of the Middle East to the religions found on the Indian Sub-Continent.

- ◆ Compare and contrast the Maurya, Gupta and Moghal Empires.
- ◆ Describe how geographic location, physical features and a rapidly growing population influence India's economy.
- ◆ Identify and explain the development and the achievements of the Chinese dynasties.
- ◆ Explain the influence of Chinese culture on Japanese and Korean society.
- ◆ Describe how geographic location, physical features and natural resources influence the economic development of nations in the region.

Gifted and Talented (G/T)

Specific gifted and talented objectives for social studies are included in the Essential Curriculum Documents for Grades 6-8. There are two "G/T Inquiries" that are grounded in the content of particular units. These required inquiries are broad questions that are used as springboards for classroom research and problem-solving activities in the G/T classes.

Special Programs

The Office of Secondary Social Studies supports several special programs available for middle school students. The *History Day Competition* is a local, state, and national competition that promotes historical inquiry, knowledge, and understanding among secondary school students. History Day encourages the development of research skills, the analysis and interpretation of primary and secondary source materials, and the opportunity for creative expression. HCPSS sponsors a large regional competition each year that includes up to 300 students from our public and private schools. This program is typically integrated as a part of the curricular program, but is dependent upon school interest. The *Black Saga Competition* is a statewide competition that challenges student knowledge about the African American experience. Middle and elementary schools from across the state compete for prizes and awards. This event is very dependent upon school interest and community support, as it is an extracurricular program.

Art

Apply art concepts and creative thinking strategies to show ways:

- ✦ Drawing tools and techniques can be used to show space and depth.
- ✦ Painting color schemes can be used to show specific effects.
- ✦ Printmaking processes can be used to develop surface details to establish center of interests.
- ✦ Sculpture techniques can be used to modify mass and volume.
- ✦ Crafts can be produced by using techniques to show rhythm and movement.

Through the art disciplines students will:

- ✦ Use simple compositional devices such as: planes of space, size change and symmetry to organize subject matter.
- ✦ Develop perceptual skill through observation, isolating slopes, locating edges, measuring angles and making proportional comparisons.
- ✦ Apply creative thinking strategies.
- ✦ Use a sketchbook/journal as a record of problem solving.

When exiting sixth grade, the student works toward proficiency in:

- ✦ Application of compositional devices to direct the viewer's eye in looking at artwork.
- ✦ Development of perceptual skill through observation.
- ✦ Use and record of strategies that generate more than one solution to a problem in a sketchbook.
- ✦ Identification of formal qualities as a means of self-evaluation.

Physical Education

- ✦ Explain the effects of physical activity on the body systems.
- ✦ Analyze the relationship between nutrition and physical activity.
- ✦ Identify levers, which increase the effect of a force exerted on a body or increase the distance a body moves by increasing speed.
- ✦ Perform tasks effectively with others in physical activity settings.
- ✦ Assess and analyze individual aerobic capacity/cardiorespiratory fitness.
- ✦ Develop strategies to solve tactical game problems.

Music

- ✦ Students will develop the ability to perceive, perform and respond to music.
- ✦ Students will demonstrate an understanding of music as an essential aspect of history and human experience.
- ✦ Students will demonstrate the ability to organize musical ideas and sounds creatively.
- ✦ Students will develop the ability to make aesthetic judgments.

Gifted And Talented (G/T)

The G/T Program provides a continuum of services in addition to G/T classes. Middle School G/T Resource Teachers instruct students who participate in Middle School G/T research classes, instructional seminars, and research investigations.

Technology Education

As the primary instructional program delivering technological literacy in Howard County, technology education aligns to both national and state content standards. The curriculum defines, in measurable terms, what it means for Howard County school students to be "technologically literate" - the ability to use, manage, understand and assess technology.

Exploring Technology: Nature Of Technology

- ✦ Develop an understanding of the nature, characteristics and scope of technology.
- ✦ Develop an understanding of the core concepts of technology.
- ✦ Develop an understanding of the relationships among technologies and the connections between technology and other fields of study.

Impacts Of Technology

- ✦ Develop abilities to assess the impacts of products and systems.
- ✦ Develop an understanding of the cultural, social, economic and political effects of technology.
- ✦ Develop an understanding of the effects of technology on the environment.

- ✦ Develop an understanding of the role of society in the development and use of technology.

Engineering Design And Development Process

- ✦ Develop an understanding of the attributes of design.
- ✦ Develop an understanding of engineering design.
- ✦ Develop abilities to apply the design process.
- ✦ Select and use tools and equipment correctly and safely.
- ✦ Develop an understanding of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.
- ✦ Develop abilities to use and maintain technological products and systems.

Core Technologies, Building Blocks Of The Designed World

- ✦ Discuss the functioning and applications of core technologies applied in common technology systems.
- ✦ Explore the functioning and applications of mechanical systems.

Producers Of The Goods And Services Of The Designed World.

- ✦ Develop an understanding of transportation technologies.
- ✦ Discuss types of transportation systems.
- ✦ Investigate and describe the functioning of vehicular subsystems.



Family And Consumer Sciences

The Individual, Family And Society

- ◆ Identify changing family images and the impact on the individual and society (e.g. multi-cultural perspectives and diversity).
- ◆ Analyze how the family fulfills the physical, social and psychological needs of individual family members (e.g. personal responsibility and the impact of individual actions/decisions on others).
- ◆ Explain the impact of family values upon the individual as well as his/her own personal value development.
- ◆ Identify strategies to promote the development of healthy family relationships and effective communication styles.
- ◆ Examine the impact of technology on family and human development.
- ◆ Illustrate the interdependence of families, neighborhoods, communities and societies.
- ◆ Discover and act upon opportunities to serve the community.
- ◆ Produce a sewing project that will meet a community need.

Food And Nutrition

- ◆ Identify dietary guidelines and the food guide pyramid.
- ◆ Identify the six essential nutrients and their benefits.
- ◆ Diagram the recommended number and size of servings for each of the six food groups.
- ◆ Demonstrate safe use of kitchen equipment and tools.
- ◆ Demonstrate safe and effective use of microwave ovens (e.g. how they cook, cooking containers, cooking time, standing time and ways to promote even cooking, and prevention of burns and exploding of foods).
- ◆ Apply math skills to proper measuring techniques.
- ◆ Define and use common abbreviations, equivalences and appropriate cooking terms.
- ◆ Use correct food handling and storing practices in the food lab.

School Counseling

Academic Development

- ◆ Identify interests, personal learning styles, academic strengths and difficulties in order to succeed in the learning processes.
- ◆ Develop positive organizational, time management, study, test taking and planning skills to achieve school success.
- ◆ Evaluate the benefits of regular attendance and positive behaviors to ensure school success.
- ◆ Utilize a variety of strategies and resources helpful in making a successful transition from elementary to middle school, grade to grade, middle to high school, and between comprehensive and alternative schools.
- ◆ Explore special programs, academic options, and extracurricular opportunities in order to enhance learning and personal growth.
- ◆ Explain the relationship between academic skills and the world of work.

Career Development

- ◆ Locate, evaluate and interpret career information.
- ◆ Identify effective steps in decision making and how to apply them to education, career and life choices.
- ◆ Investigate requirements and options to develop a four-year plan of study for high school.
- ◆ Identify personal qualities and behaviors needed to secure and maintain employment.
- ◆ Identify stereotypes, biases and discriminatory behaviors that may limit opportunities in the workplace.

Personal/Social Development

- ◆ Express feelings in order to more accurately:
 - ◆ understand one's feelings and the feelings of others.
 - ◆ communicate one's needs.
 - ◆ communicate assertively.
- ◆ Develop coping skills in order to adapt to change, make positive transitions and effectively handle stress.
- ◆ Employ essential social skills needed to experience positive working relationships and work cooperatively in groups.

- ◆ Develop alternative ways to handle conflicts in order to avoid aggressive behaviors.
- ◆ Show respect for physical, academic and cultural differences among peers and adults in order to learn and work effectively with others.



LIBRARY MEDIA / EDUCATIONAL TECHNOLOGY

Library Media

Literature Appreciation

- ◆ Select and read a variety of materials.
- ◆ Make text-to-world connections.
- ◆ Use libraries to help develop good reading habits.
- ◆ Choose to browse, select and enjoy library materials.
- ◆ Recognize the connection between reading and being a lifelong learner.

Information Literacy

- ◆ Identify information needs.
- ◆ Follow systematic problem-solving steps.

Locate Information

- ◆ Analyze criteria of assignments to develop effective research questions.
- ◆ Make appropriate selections of relevant information in all formats.
- ◆ Use alphabetical order and the Dewey Decimal System to identify, locate and retrieve materials.
- ◆ Locate materials using the Public Access Catalog.

Collect Information

- ◆ Utilize effective search strategies for collecting relevant information from print, nonprint and computer/online/digital resources.
- ◆ Evaluate the content of specific print, nonprint and computer/online/digital resources to determine accuracy and relevance of content.
- ◆ Record relevant information using graphic organizers in print and electronic formats.
- ◆ Capture key concepts in own words to avoid plagiarism.
- ◆ Include a bibliography as a component of all research assignments.

Organize And Manage Information

- ◆ Record and organize information using appropriate format.
- ◆ Match appropriate format with content to be organized.

Interpret Information

- ◆ Determine the ideas being communicated in a variety of resources.
- ◆ Apply critical thinking and problem-solving strategies.

Share Findings/Conclusions

- ◆ Present findings in oral, written, visual and multimedia formats.
- ◆ Design layouts that communicate content effectively.
- ◆ Reflect on and provide feedback about the research process.

Use Information And Resources Ethically

- ◆ Demonstrate proper care and handling of media and equipment in all formats.
- ◆ Practice strategies for avoiding plagiarism.
- ◆ Comply with fair use and copyright laws.
- ◆ Cite sources of information.
- ◆ Follow safe practices when working online.

Educational Technology

Technology Systems

- ◆ Describe technology in appropriate language.
- ◆ Demonstrate fundamental computer operations.
- ◆ Demonstrate proficient use of input and output devices.
- ◆ Manage files by saving them in different formats, organizing files and folders, and saving files to external drives and servers.
- ◆ Explore the nature of assistive technology devices.
- ◆ Practice safe computing.

Digital Citizenship

- ◆ When researching, list appropriate copyrighted electronic sources.
- ◆ Explain how technology affects the individual and society.
- ◆ Respect information privacy, using and altering information only when authorized.
- ◆ Abide by copyright laws involving software use and Internet files.

Technology For Learning And Collaboration

- ◆ Improve productivity using appropriate keyboarding techniques.
- ◆ Design and develop desktop publishing products, such as newsletters and brochures, that incorporate text and graphics to

prepare and present content-related information.

- ◆ Collect, organize, manipulate and analyze data using appropriate software.
- ◆ Create word processing documents using formatting features such as tabs, margin adjustments, page orientation, justification, columns, headers, footers and page numbers to communicate ideas.
- ◆ Collaborate with peers, experts and others by using telecommunications to investigate curriculum-related problems, issues and information.

Technology For Communication And Expression

- ◆ Recognize technology's role in telecommunication.
- ◆ Use various media and formats for multiple purposes.
- ◆ Communicate curriculum concepts to design, develop, publish and present multimedia products such as web pages, interactive presentations and digital video products.

Technology For Information Use And Management

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

Technology For Problem Solving And Decision Making

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



HOW TO HELP YOUR CHILD AT HOME

Writing

- ◆ Encourage your child to write to relatives and friends who may live out of town. Use e-mail.
- ◆ Encourage journal writing as another way to record memorable family events - trips, holidays, weddings, birthdays and other special occasions.
- ◆ Encourage your child to read aloud the papers he/she prepares for school.
- ◆ Be primarily interested in the content rather than the mechanics of your child's writing.
- ◆ Praise your child's efforts at writing.
- ◆ Ask to see your child's composition folder whenever you visit his or her teacher.

Reading

- ◆ Talk about what you and your child are reading.
- ◆ Have books, magazines and newspapers around the house.
- ◆ Set aside some time each day for reading rather than watching television.
- ◆ Encourage summer reading of high interest materials.
- ◆ Take family visits to the public library.
- ◆ Give your child books as gifts.
- ◆ Use the Internet to research and read information of use to your family.

Mathematics

- ◆ Discuss with your child the mathematics that he/she is learning.
- ◆ Find opportunities to do mathematics every day.
- ◆ Listen to your child explain how he/she approaches and solves mathematics problems.
- ◆ Work on puzzles and other "fun" mathematics problems.
- ◆ Explore the mathematics in books and television shows that you read or view together.
- ◆ Discuss the mathematics found in the media (newspaper articles, news reports, magazines).
- ◆ Use computers and calculators, as well as pencil and paper, to solve problems.
- ◆ Discuss with your child why (or why not) an answer to a mathematics problem is reasonable.
- ◆ Help your child review memorized facts.
- ◆ Make mistakes a part of learning.
- ◆ Have a positive attitude toward mathematics.
- ◆ For web resources, go to www.hcpss.org and look at math resources in the section "For Students."

Physical Education

- ◆ Play catch with your child using a variety of objects (frisbee, basketball, volleyball, football).
- ◆ Play a net game with your child (tennis, badminton, table tennis, paddleball, racquetball).
- ◆ Provide time for your child to participate in an outdoor health enhancing activity (biking, hiking, walking, jogging).
- ◆ Ask your child to graph his/her heart rate from resting to vigorous activity to cool down.

Science

- ◆ Have your child discuss the science concepts that were studied in class that day.
- ◆ Use print material such as newspapers and magazines to identify and study recent developments in science and technology.
- ◆ Encourage your child to watch scientific programming and discuss the topics presented.
- ◆ View the sky during the year to plot the monthly lunar patterns and make predictions for the future.
- ◆ Study global weather patterns, using newspapers, television or internet information to predict and analyze weather patterns.
- ◆ Identify local areas of development in your community and study the construction devices used to control runoff and erosion.
- ◆ Visit local museums to study past and recent scientific discoveries. Discuss how this information has impacted human life.
- ◆ Encourage participation in local programs such as Save Our Streams to study human influence on the earth's natural resources.

Music

- ◆ Encourage your child to listen with you to music of all styles.
- ◆ Discuss with your child music heard on radio, television or in live performances, using descriptive words to express preferences.
- ◆ Urge your child to elect instrumental or choral music in school and to take private lessons on an instrument.
- ◆ Provide opportunities for your child to participate in outside musical groups: orchestra, community theatre or summer camp.
- ◆ Provide a variety of musical materials and tools for your child's use: compact discs and cassette tapes,

music computer software, books and periodicals about music and musicians and musical instruments.

- ◆ Encourage your child to follow up on special interests by researching artists, composers, and styles of music through use of the Internet, library books, encyclopedias, and current music periodicals.
- ◆ Provide opportunities to explore music of various cultures through local festivals and concerts or while traveling.
- ◆ Share music of your own culture with your child and his or her classmates.
- ◆ Encourage your child to experiment, improvise, or compose, using a computer or musical instruments in the home.
- ◆ Share a variety of concert experiences with your child and discuss the selection of music and the effectiveness of the performances.
- ◆ Convey to your child the value you place on music as an integral part of the core school curriculum and a body of studies which contribute to academic success and a rich quality of life.

Educational Technology

- ◆ Discuss the use and impact of technology in everyday life such as: cell phones, PDAs (personal digital assistants), email communication, automatic teller machines and electronic catalogs at the library.
- ◆ Encourage your child to use technology as a research tool for projects when appropriate. For example, you might help your child use the Internet to locate information about a specific topic. The Howard County Public School System provides online resources to assist students (*World Book Online*, *Culture Grams*, *Science Resource Center*, *U.S. History*, *Student Resource Center Jr.* and *SIRS Researcher*). Check with the library media specialist at your school for access information.
- ◆ Encourage your child to use technology as a tool for homework when appropriate. For example, you might want to work with your child to create a multimedia presentation for a class project.
- ◆ Encourage your child to practice keyboarding skills.
- ◆ Encourage your child to use Software programs appropriate for Grade 6: *Microsoft Word*, *Excel*, and *Powerpoint*, *Inspiration* and *Mavis Beacon Teaches Typing*.

HOW TO HELP YOUR CHILD AT HOME

Social Studies

- ◆ Make the daily newspaper and weekly news magazines a part of family reading.
- ◆ Watch news documentaries and specials as a family and discuss the issues that are raised.
- ◆ Visit local government meetings and the courthouse as a family.
- ◆ Visit museums, historical societies and historic sites.
- ◆ Encourage your child to support his/her ideas with data and other forms of evidence.
- ◆ Have your child keep a travel journal when traveling on vacation.
- ◆ Follow along with a map or GPS (global positioning system) device when traveling.
- ◆ Practice map reading and directional skills.

For more detailed information about the social studies curriculum, office, resource links, and special sections designed just for parents and students, visit the social studies website at <http://www.hcps.org/socst>.

Library Media

- ◆ Encourage reading for fun and as a free-time activity.
- ◆ Create an environment rich with books. Middle school students especially enjoy reading paperback books.
- ◆ Read with your child every chance you get - even if it's just part of a newspaper article at the breakfast table.
- ◆ Discuss ideas in books your child reads.
- ◆ 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 utilize the library as a resource for information and materials for enjoyment.
- ◆ 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.

Technology Education

- ◆ Take your child to museums that focus on or have areas related to technology.
- ◆ Provide an area where your child can create and experiment with different designs to problem-solving activities.
- ◆ Encourage your child to create procedural outlines for solving a problem.
- ◆ Point out different forms of technology used in everyday life.

Family And Consumer Sciences

- ◆ Provide opportunities for your child to participate in meal planning and preparation.
- ◆ Help your child plan for emergency situations when home alone that might involve food safety and other considerations.
- ◆ Include your child in discussions of personal and home income management and allocations.
- ◆ Allow your child to plan, prepare and shop for dinner one night a week.
- ◆ Include your child in discussions of how you arrived at your career choice. Bring career choices and pathways of others into discussions including education/training required, leisure time available, etc.
- ◆ Provide opportunities for your child to apply their math skills around the home: measuring, using fractions in food preparation and writing menus and thank-you notes.

Health

- ◆ Discuss situations that show the consequences of tobacco use on health.
- ◆ Talk to your child about strategies to use for peer pressure.
- ◆ Help your child to build solid relationships with peers.
- ◆ Help your child to interpret what they see about tobacco in advertisements and on television programs.
- ◆ Role-play situations to practice using resistance and decision-making skills.
- ◆ Discuss ways to prevent all types of child abuse, bullying and teasing.
- ◆ Monitor your child's use of the Internet.
- ◆ Identify with your child the adults they can go to for help.
- ◆ Provide opportunities for your child to express feelings and concerns.
- ◆ Gather and discuss information with your child on a topic related to human sexuality.
- ◆ Read and discuss a library book together that focuses on a theme of being a young adolescent.
- ◆ Use your child's age and development and your own feelings as a guide about how much information to present about topics related to human sexuality.
- ◆ Practice habits that will prevent the spread of diseases.
- ◆ Discuss behaviors that put children at risk of contracting and spreading diseases.
- ◆ Talk about HIV as a disease we all need to know about.

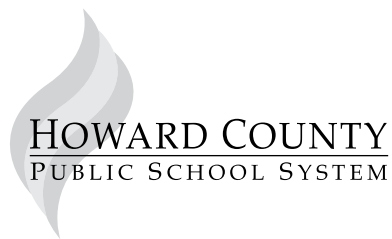
- ◆ Use your child's age and development and your own feelings as a guide about how much information to present about HIV/AIDS.

School Counseling

- ◆ Designate an area in your home for your child to complete homework.
- ◆ Review daily and long-term assignments with your child.
- ◆ Encourage your child to participate fully in the middle school experience by participating in special programs and extracurricular activities.
- ◆ Praise your child for effort and achievement.
- ◆ Expose your child to career options by discussing careers of family members and friends.
- ◆ Demonstrate how to effectively share feelings.
- ◆ Encourage decision-making skills by offering your child choices, when possible and modeling decision-making skills.

Art

- ◆ Set aside an area for artwork to be made, finished for exhibition and displayed.
- ◆ Provide a sketchbook to record and plan artwork, and a variety of materials and tools for your child to use in:
 - ◆ drawing, which can be used to show depth, such as a 2B graphite pencil, fine point water-based markers and charcoal pencils.
 - ◆ painting, which can be used to show color schemes and specific effects, such as colored pencils and water-based markers, tempera and watercolor.
 - ◆ printmaking to depict texture and surface details such as linoleum or wood and appropriate carving tools.
 - ◆ sculpture, which can be used to modify mass and volume, such as blunt wooden tools and synthetic clays.
 - ◆ crafts, which can be used to show rhythm and movement, such as felt, wire and found objects.
- ◆ Emphasize observation as a means for recording images in drawing, painting, and sculpture, including portraits of animals or pets that depict motion.
- ◆ Promote the use of artful activities to make family events special.
- ◆ Visit galleries and museums to discuss the plans, subject matter, processes and techniques used by master artists, and ways they reflect the period in which they worked.
- ◆ Share the public library with your child as a source for books that picture master artworks and describe the lives and working methods of artists.



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