

**Page-Turners & Big Ideas**  
**10th Grade**  
**Quarter One**

**English**

**Analysis: Why do Stories Endure?**

**Texts:** *The Odyssey, Things Fall Apart, Bless Me, Ultima*

- **Key Terms:** analysis, theme, textual evidence, inference, figurative language, contrast, motif, theme development, cultural context

**Mathematics**

**Algebra 1**

**Linear Equations, Inequalities, and Systems**

- **Key Terms:** solution to a system of equations, equivalent systems, systems of inequalities, solutions to a system of inequalities

**Functions**

- **Key Terms:** function notation, linear function, decreasing function, increasing function, vertical intercept, piecewise function, absolute value, inverse function

*\*\*The Board of Education adopted the mathematics curriculum, "Illustrative Math" by Imagine Learning.*

**Geometry/Honors Geometry**

**Congruences & Rigid Transformation**

- **Key Terms:** conjecture, perpendicular bisector, inscribed, angle bisector, tessellation, assertion, rigid transformation, theorem, vector, translation, reflectional symmetry, rotational symmetry

*\*\*The content for the student workbooks is sourced from the Illustrative Math curriculum.*

**Algebra 2 and Honors Algebra 2**

**Functions and Their Inverses**

- **Key Terms:** asymptote, end behavior, zero, factor, multiplicity, polynomial, inverse, minimum, maximum, turning points, rational function, logarithmic function

*\*\*No core instructional textbook*

**Precalculus and Honors Precalculus**

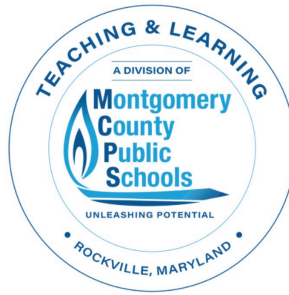
**Polynomials, Power, and Rational Functions**

- **Key Terms:** piece-wise defined function, rational functions, polynomial functions, radical functions, limit notation, rational inequalities, polynomial inequality, partial fraction decomposition, complex fraction

*\*\*MCPS uses two textbooks county-wide in Precalculus:*

- *"Precalculus: Graphical, Numerical, Algebraic," Addison Wesley, Copyright 2007*
- *"Advanced Mathematical Concepts," Glencoe, Copyright 2006*

**Families:** Put this on your refrigerator and review at home!



## Page-Turners & Big Ideas

### Science

#### Astronomy with Physics

##### Interplanetary Motion

In this unit, students explore and investigate the motion, orbits, and forces of our planet and of objects within our solar system.

- **Key terms:** force, motion, velocity, acceleration, friction, gravity, stability, energy, conservation of energy, kinetic energy, potential energy, energy transfer, system, solar system, orbit, rotation, revolution, axis, universe

#### Earth Systems and Sustainability

##### Space Systems

In this unit, students explore patterns caused by Earth's movement in the solar system.

- **Key terms:** universe, galaxy, star, spectra, fusion, fission, element, radiation, protostar, light-year, gravity, constellation, mass, orbit, rotation, revolution, axis, redshift, expansion

### Biology

##### Independent Relationships in Ecosystems

In this unit, students explore how living things and their environments stay in balance, and what happens when that balance is disrupted.

- **Key terms:** carry capacity, limiting factor, predator-prey relationship, habitat destruction, pollution, climate change, invasive species, biodiversity, conservation, sustainability, restoration Ecology, endangered species

### Chemistry

##### Diversity of Elements

In this unit, students investigate the building blocks of matter and the forces that hold atoms together.

- **Key terms:** nuclear force, radioactive decay, nuclear fission, nuclear fusion, electromagnetic (EM) radiation, solar flares, sunspots, absolute age, oceanic/continental crust, mid-ocean ridges, meteorites, impact craters

### Physics A

##### Forces, Motion, and Interactions

### Social Studies

#### National, State, and Local (NSL) Government

##### Structures and Powers of the U.S. Government

Students learn about the types of government and analyze the foundational principles that influence its structure and function, focusing on the legislative and executive branches. They also examine the effectiveness of government responses that require cooperation between different levels and branches of government.

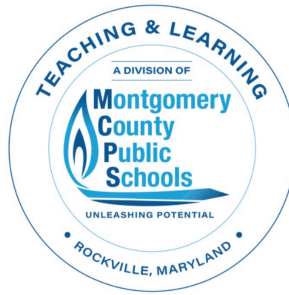
- **Key Terms:** direct, representative, presidential, and parliamentary democracies, absolute monarchy, oligarchy, dictatorship, totalitarianism, federalism, the supremacy clause, types of powers, executive orders, vetoes, pardon, appropriations, public health

##### Participation in the Political Process

Students analyze the foundational principles of government that provide authority to the U.S. government, learn how participation in a democracy shapes the common good, including voting and organizing to promote beliefs and interests, examine how political parties, media, and groups influence government policy and public opinion, and analyze the processes, structures, and influences on American elections.

- **Key Terms:** political parties, closed and open primaries, campaigns, general elections, reapportionment, redistricting, gerrymandering, voter registration drives, referendums, civil disobedience, voting, boycotts

Note: Social Studies standards are integrated throughout the unit. The standards are History, Civics, Peoples of the Nations and World, Economics, Geography, and Social Studies Skills.



## Page-Turners & Big Ideas

In this unit, students explore how objects interact and how energy moves within and between systems.

- **Key terms:** velocity, acceleration, friction, gravity, stability, energy, conservation of Energy, kinetic energy, potential energy, energy transfer

*\*\*No core instructional textbook*

[These](#) supplemental instructional materials might also be included in tenth grade. Supplemental materials are additional approved books for teachers to use to teach a topic. Ask your child's teacher for more information about supplemental materials used in your child's classroom. If any listed instructional material conflicts with your family's sincerely held religious beliefs, you may request your child's excusal by submitting [this request form](#). For additional information, visit [our website](#).

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