

Page-Turners & Big Ideas

12th Grade Quarter One

English

Themes (Select one each for MP1 & MP2):

- Class in America
- Education and
- Learning
- Humor and Society
- Race, Culture, and
- Identity
- Stories of Place

Texts (will depend on theme selected): *A Hope in the Unseen*, *A Lesson Before Dying*, *A Place for Us*, *Adventures of Huckleberry Finn*, *All the Pretty Horses*, *Between the World and Me*, *Catch-22*, *China Men*, *Citizen Illegal*, *Counting Descent*, *Donald Duk*, *Eating Animals*, *Fences*, *Girl in Translation*, *The Heart of a Woman*, *House Made of Dawn*, *Hunger for Memory*, *I Know Why the Caged Bird Sings*, *Into the Beautiful North*, *Into the Wild*, *Invisible Man*, *Like Water for Chocolate*, *Little Fires Everywhere*, *Native Son*, *Nickel and Dime*, *The Nickel Boys*, *Notes of a Native Son*, *Outliers*, *Pilgrim at Tinker Creek*, *Roots*, *Seven Arrows*, *Song Yet Sung*, *Tell Me How It Ends*, *The Accidental Asian*, *The Alchemist*, *The Autobiography of Malcolm X*, *The Color of Water*, *The Glass Castle*, *The Great Gatsby*, *The Help*, *The Old Man and the Sea*, *The Other Wes Moore*, *The Shipping News*, *The Sirens of Titan*, *We Were Eight Years in Power*, *The Women of Brewster Place*, *Typical American*, *Walden*, *What is the What*, *Woman in the Dunes*

- **Key Terms:** narrative, reflection, personal essay, self-assessment, voice, tone, pacing, characterization, theme, central idea, interaction of ideas, synthesis, perspective, point of view, structure, cohesion, diction, connotation, denotation, motif, symbolism, figurative language, irony, juxtaposition, ending, resolution, closure, comparison, contrast, cultural context, global context, audience, purpose, register, adaptation, summary, concision, paraphrase, quotation, source evaluation, credibility, bias, validity, reasoning, evidence, interpretation, rhetorical strategies, persuasion, ethos,

Mathematics

2Yr Algebra 2 CD

Introduction to the Unit Circle & Trig Functions

- **Key Terms:** amplitude, frequency, midline, relative maxima, relative minima, increasing function, decreasing function, sine, cosine, tangent, unit circle

****No core instructional textbook**

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

Statistics and Math Modeling

Logic

- **Key Terms:** Modus Tollens, Modus Ponens, Contrapositive, Tautology, Converse Syllogism

Matrices

- **Key Terms:** row, column, inverse

Mathematical Decisions

- **Key Terms:** voting poll laws

****No core instructional textbook**

Honors Statistics

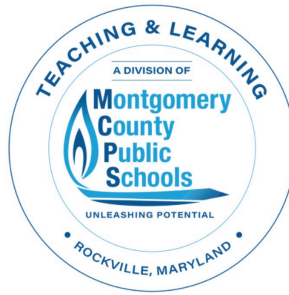
Analyzing One-Variable Data

- **Key Terms:** Statistics, individual, variable, categorical variable, quantitative variable

Collecting Data

- **Key Terms:** Distribution, frequency table, symmetric, skew

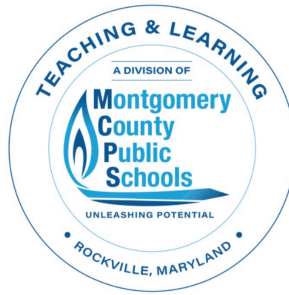
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<p>pathos, logos, news writing, headline, lead, multimedia, visual rhetoric, oral presentation, data collection, survey, findings, analysis, implications, conclusions</p>	<p>Probability</p> <ul style="list-style-type: none"> Key Terms: Simulations, Law of Large Numbers, probability model, complement rule, mutually exclusive, conditional probability, correlation & causation <p><i>**MCPS uses a countywide textbook for Honors Statistics, "Statistics and Probability with Applications," BFW, 3rd edition.</i></p>
<p>Science</p> <p>Astronomy with Physics</p> <p>Interplanetary Motion</p> <p>In this unit, students explore and investigate the motion, orbits, and forces of our planet and of objects within our solar system.</p> <ul style="list-style-type: none"> Key terms: velocity, acceleration, friction, conservation of energy, kinetic energy, potential energy, energy transfer, system, solar system <p>Earth Systems and Sustainability</p> <p>Space Systems</p> <p>In this unit, students explore patterns caused by Earth's movement in the solar system.</p> <ul style="list-style-type: none"> Key terms: universe, galaxy, star, spectra, fusion, fission, protostar, light-year, gravity, constellation, revolution, redshift, expansion <p>Biology</p> <p>Independent Relationships in Ecosystems</p> <p>In this unit, students explore how living things and their environments stay in balance, and what happens when that balance is disrupted.</p> <ul style="list-style-type: none"> Key terms: limiting factor, predator-prey relationship, equilibrium, habitat destruction, pollution, climate change, invasive species, biodiversity, restoration Ecology, endangered species <p>Chemistry</p> <p>Diversity of Elements</p> <p>In this unit, students investigate the building blocks of matter and the forces that hold atoms together.</p> <ul style="list-style-type: none"> Key terms: compound, nuclear force, radioactive decay, nuclear fission, nuclear fusion, electromagnetic (EM) radiation, solar flares, oceanic/continental crust, mid-ocean ridges, meteorites, impact craters <p>Physics A</p>	

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Forces, Motion, and Interactions

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

- **Key terms:** force, motion, 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 twelfth 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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