Bath Middle School
English/Language Arts Curriculum Overview
8th Grade

Standards: ELA Common Core State Standards Grade 8

Topics Covered

Semester 1	Semester 2
6 Traits of Writing Informational Text Structure Figures of Speech America & Me Essay *Devil's Arithmetic*	Active/Passive Verbs Mood/Tone in Verbs Research Verb Phrases *The Outsiders*

Focus Skills and Concepts

Reading

- Compare and contrast the theme, author's purpose, and main idea in multiple pieces of text.
- Discuss how a character is revealed through their actions and statements.
- Identify different text structures and how that impacts the understanding of the text.

Writing

- Write from various points-of-view.
- Identify and use different types of verbs and verb phrases.
- Use text to support answers.
- Write research papers using credible sources with clear reasons and evidence.

Essential questions students can answer at the end of the course

- What are the essential components to include in a research paper?
- How do verbs impact writing?
- How do different types of text structures affect the way a reader interprets the text?
- How does a novel add to your understanding of the world around you?
- How does the type of text influence the structure of your writing?

Prerequisite skills critical for success:

- Ability to write for a specific purpose
- Application of all eight parts of speech
- Consistently use a variety of sentences to enhance writing
- Read at grade level

Major Projects

- America & Me Essay
- Memoir from *Devil's Arithmetic*
- Compare and contrast essay
- Research project and presentation
- Quarterly book reports

Assessments

Unit Tests and Quizzes

Bath Middle School
Math Curriculum Overview
8th Grade

Curriculum/Textbook: Go Math! By Houghton Mifflin Harcourt
Student Website: http://my.hrw.com
Standards: Math Common Core State Standards Grade 8

Topics Covered

Semester 1	Semester 2
Real Numbers, Exponents, and Scientific Notation Proportional and Non-proportional Relationships and Functions Solving Equations and Systems of Equations	Transformational Geometry Measurement Geometry Statistics

Focus Skills and Concepts

- Know that there are numbers that are not rational and approximate them by rational numbers.
- Work with radicals and integer exponents.
- Understand the connections between proportional relationships, lines, and linear equations.
- Analyze and solve linear equations and pairs of simultaneous linear equations.
- 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.
- Investigate patterns of association in bivariate data.
- Define, evaluate, and compare functions.
- Use functions to model relationships between quantities.

Essential questions students can answer at the end of the course:

- How can you use scientific notation and real numbers to solve real-world problems?
- How can you use tables, graphs, and equations to compare functions?
- What are the different methods used to solve systems of linear equations?
- How can you use transformations to show congruence and similarity?
- How can you prove the Pythagorean Theorem and use it to solve problems?

Prerequisite skills critical for success:

- Understanding of basic facts in addition, subtraction, multiplication, and division from 0-12
- Understanding of how to divide real numbers
- Addition, subtraction, multiplication, and division of fractions
- Basic geometric formulas of area and perimeter for rectangles, triangles, and circles
- Basic organizational skills

Assessments

Pre-Assessment
Mid-Year Assessment
End of Year Assessment
End of Module Assessments

Bath Middle School
Science Curriculum Overview
8th Grade

Curriculum/Textbook: Earth Science Geology, the Environment, and the Universe
Standards: Michigan High School Content Expectations for Earth Science
Next Generation Science Standards (6-8)

Topics Covered

Semester 1	Semester 2
Science Processes Rocks and Minerals Plate Tectonics, Earthquakes, and Volcanoes The Changing Surface of the Earth	Earth in Space, Galaxies and Star Evolution Oceans and Climates Earth's Resources/Environment Geologic Time

Focus Skills and Concepts

- Design and conduct scientific investigations that test a hypothesis using appropriate tools and techniques.
- Identify common rock-forming minerals.
- Identify and classify igneous, metamorphic, and sedimentary rocks based their physical features from formation.
- Describe the processes that change one kind of rock to another in the rock cycle.
- Understand the scientific evidence that led to the theory of plate tectonics.
- Distinguish between the three types of plate boundaries and how movement at different plate boundaries creates new seafloor, volcanoes, mountains, and earthquakes.
- Explain theories about how the Earth and universe formed and evolved over a long period of time.
- Investigate how the ocean and atmosphere move energy around the Earth and affect climates.
- Identify differences renewable and nonrenewable energy sources and research the advantages and disadvantages of using various kinds of energy.
- Explain how Earth has changed over geologic time and the methods scientists use for relative and absolute dating.

Essential questions students can answer at the end of the course:

- What are some basic processes of the Earth and where are examples or evidence of these in the real world?
- How do humans impact the Earth and what can they do to help conserve the Earth's resources?
- How do I use tables and graphs to understand scientific concepts and relationships between variables?
- How do I apply the scientific method to investigate questions, design models, and conduct experiments?

Prerequisite skills critical for success:

- Understanding of basic scientific lab procedures and the scientific method
- Understanding of graphs (interpretation and creation of various kinds)
- Grade level reading skills for comprehension of informational text
- Basic organizational skills

Major Projects

- Rock Story: create a scientifically accurate story about a rock's life through the rock cycle
- Convection Inquiry Lab: create and revise a model of a double convection current (fuel of plate motion)
- Volcano Research Presentation: research and create a presentation about a volcano by applying knowledge of volcanic structure, magma content, explosivity, and impact on humans/environment
- Wind Turbine Blade Energy Report: design, build, and test various blade constructions and provide a report about which one is the most effective
- Energy Presentation and Recommendation: research the benefits and weaknesses of one form of energy and then present their recommendation to the team

Bath Middle School
Social Studies Curriculum Overview
8th Grade

Curriculum/Textbook: Discovering Our Past: A History of the United States, Early Years by McGraw-Hill
Standards: Michigan Grade Level Content Expectations for 8th Grade Social Studies

Topics Covered

Semester 1	Semester 2
Foundations Project Birth of a Nation Washington's Farewell Address/Growth of Political Parties Jefferson, Madison, Monroe Jackson, Expansion, and Industry	Manifest Destiny and Westward Expansion Religion and Reform Causes of the Civil War Civil War Reconstruction

Focus Skills and Concepts

- Explain the strengths and weaknesses of The Articles of Confederation.
- Explain the issues debated from at the Constitutional Convention.
- Read and interpret primary sources.
- Understand and describe how political parties evolved.
- Explain America's foreign policy during the time period.
- Describe the expansion of America and how it affected American Indians and African Americans.
- Describe the different reform movements from the Antebellum Era.
- Describe the events that led to sectionalism in America.
- Understand why certain Southern states seceded from the Union.
- Describe Abraham Lincoln's political leadership during the Civil War.
- Describe the important events and ideas during Reconstruction.

Essential questions students can answer at the end of the course:

- What is the Constitution and why is it essential to America?
- What are primary resources and how can you use them to understand American history?
- What events led to rifts within the United States?

Prerequisite skills critical for success:

- Critical thinking skills
- Basic organization skills
- Grade level reading and writing skills