

Curriculum Overview Grades 5-8

Grade 5:

Reading:

- By reading a variety of genres throughout the year, students will be building skills in reading comprehension, fluency, analyzing text, and using evidence to support an opinion. Students will also be introduced to reading strategies such as: predicting, comparing and contrasting, summarizing, using context clues, determining theme, and identifying figurative language.
- In addition to reading whole class novels such as *The Great Gilly Hopkins* and *Among The Hidden*, students will participate in literature circle groups where they meet to discuss books. Scope Magazine and Ready Reading workbooks provide exposure to interesting nonfiction articles and allow for practice with skills. During the year students also create projects such as a poster, book report or PowerPoint.

Writing:

- Spelling (which consists of spelling workbook pages and a quiz at the end of each week)
- Writing process of writing an opinion letter, an article to inform, a legend, book chapter, and writing an opinion speech.
- Grammar that follows the writing process.
- Students watch an inspirational videos then discuss.
- Watch Spellbound, a documentary about 7 children that are in the National Spelling Bee.
- Use epals.com to connect students with students from other countries in a pen pal relationship.
- Postcrossing.com to have students write authentic post cards and send them (via snail mail) to other people in various countries around the world.

Math:

- Adding, subtracting, multiplying and dividing decimals,
- Adding, subtracting, multiplying and dividing fractions
- Exponents, geometry (classifying triangles, quadrilaterals), converting measurements (customary and metric)

Social Studies:

- Map skills including labeling the 7 continents and oceans and creating their own World Map
- Native Peoples of North America and Exploration/Colonization (students will be creating a Winter Count like the Lakota Natives and a Codex as a final project),

- Colonial America (Sail America project in which students create a travel agency that represents their region, then create an individual travel brochure to represent one of the thirteen colonies)
- Students end with the American Revolution.
- Watch Kids in Other Countries and On the Way to School. Both are documentaries that show the life of students in other countries, including the struggles they face.
- We go to Mystic Seaport via the Quiet Corner Grant
- Gail Usher presents her knowledge/primary sources of the Natives in our local area.

Science:

- Study the 4 spheres: atmos, hydro, geo, and bio.
- Some pretty "oh, wow!" demo's: showing how air takes up space.
- Created food chains that we 'graphed out' on the classroom floor.
- Teams of students had 'relay' races with LEGO blocks, to illustrate 'weathering, erosion, deposition' of soil.
- Groups of students write songs/stories about the water cycle and present to class.
- FOSS unit: "Mixtures and Solutions".
- The EASTCONN Mobile STEM Lab visit to share rotating centers about mixtures and solutions. Students create salt solution, and use evaporation dishes to create salt crystals that were examined under microscopes and sketched. Groups of students performed 'raps' defending the statement: 'mixtures are not the same as solutions'.

Grade 6:

Reading:

- Primary Reading Curriculum – Readers’ Workshop
- Independent reading with group discussion
- Themes:
- Character development
- How setting influences character
- Motifs & Themes
- Author’s Craft
- Historical Fiction
- Realistic/multi-cultural fiction
- Weekly group meetings to discuss reading
- Group & individual projects to share reading and learning with the class
- Student-choice book selection
- Use of music videos & online short films to show how reading skills can be used in other areas

Writing:

- Daily Paragraph Editing: punctuation, word usage, verb tense, subject/verb agreement, quotations
- Weekly journals
- Summary writing – topic sentence, marking up articles, paraphrasing
- Descriptive Essays: sensory details, precise language, figurative language
- Cause and Effect Essays: topic sentence, organization
- Compare & Contrast – Topic sentence, organizing, balancing details
- Biography: organizing, main idea sentences, using texts/internet for research
- News Articles
- Personal narrative
- Expository with the fire prevention essay
- Narrative Essay
- Persuasive Essay
- Fire Prevention Essay
- Response to literature – Understanding prompts, summarizing text, marking up text
- Research report – Topic sentence, main idea sentences, research questions, note taking (notecard style), outlines, quotes/paraphrasing, intro & conclusion, bibliography
- Grammar: Nouns, Pronouns, Verbs, Adjectives, Adverbs, Combining Sentences, Capitalization, Punctuation
- Figurative Language--similes, metaphors, hyperbole, onomatopoeia, alliteration

Math:

- Computation with fractions and decimals
- Integers and Rational Numbers on number lines and coordinate plane
- Numeric and Algebraic Expressions
- Solve equations and inequalities
- Ratios and Rates
- Using Percents
- Area, Surface Area, and Volume
- Display, describe, and summarize data

Social Studies:

Main Themes:

- Ancient Civilizations--Early Humans, Stone Ages, Mesopotamia, Egypt, India, China, Greece, Rome
- Geography--world map of all continents and oceans, maps of all world countries

Projects:

- Geography--design your own map
- Egypt--create our own cartouche
- India--power point, posters, brochures

- We do a lot of posters and presentations for the different civilizations
- A unit on the world's water shortage
- An independent country project

Science:

- Students in middle school develop an understanding of key concepts to help them make sense of the life, physical, and earth sciences. These ideas are taught through the disciplinary core ideas, science and engineering practices, and crosscutting concepts.
- Key **physical science topics** include:
 - PS1.A: Structure and Properties of Matter
 - PS1.B Chemical Reactions
 - Students will investigate substances to identify what is in a mystery mixture.
 - PS3.A Definitions of Energy
 - PS3.D Energy in Chemical Processes and Everyday Life
- **Life science topics:**
 - LS1.C Organization for Matter and Energy Flow in Organisms
 - LS2.A Interdependent Relationships in Ecosystems
 - LS2.B: Cycle of Matter and Energy Transfer in Ecosystems
- Students investigate conduction, convection, and radiation through a variety of activities.
 - LS2.C: Ecosystem Dynamics, Functioning, and Resilience
- **Earth science topics:**
 - ESS2.A The Roles of Water in Earth's Surface Processes
 - ESS2.D: Weather and Climate
 - ESS3D: Global Climate Change
- **MS.Engineering Design**
 - MS-ETS1-1. Define the criteria and constraints of a design problem
 - MS-ETS1-2. Evaluate competing design solutions
 - MS-ETS1-3. Analyze data from tests
 - MS-ETS1-3. Develop a model to generate data
- Students will design a variety of insulation materials to see what works best in an attic and in roof material.

Grade 7:

English:

ELA has three key strands:

- We read, study vocabulary and grammar, and we write.
- We use *Vocabulary Workshop* materials to study approximately ten words each week.

Fiction:

- Our summer reading book, *The Giver*, is used to review terminology around stories: protagonist, antagonist, setting, theme, and the like.
- We also look at the language of stories, metaphor, simile, personification, symbolism.

- Strategies to develop character are discussed: what characters say, things they do, how they treat other characters.
- Write book reports using a book that they read during the summer—showing that they understand and can apply the common terms of fiction: plot, characterization, theme development, etc. to the book they read on their own.
- View parts of the movie “The Giver” and compare how the director adapts the story to film, especially the techniques used so that ideas generally relayed through narration, can be conveyed through visual means.
- Write their own fictional story using the techniques we studied.
- Grammar, including the punctuation of dialogue is covered as part of this writing unit.
- Sentence writing is covered as part of grammar and vocabulary instruction and assessment.
- Read *A Christmas Carol*, in preparation for a visit to the Hanover Theater to see a performance of the story. This is another opportunity to look at the techniques of fiction and to review strategies directors use to translate a story into a visual format.
- In grammar, we study sentence structure including complete sentences, and basic sentence parts: subject, verb, direct object, complements, and prepositions.
- Nonfiction book report
- In February in honor of Black History Month, we read poems by Langston Hughes, and Martin Luther King’s “I Have a Dream” speech. We also read some short stories. Independently, students will read and report on a nonfiction book of their choice.
- Held a debate to supplement the rainforest study. The debate centered around a development project in the rainforest, and the impact of development on the local as well as the national and international economy.
- Biographies using two pioneers/advocates for civil rights, Eleanor Roosevelt and Jackie Robinson. Students biography to read and to write a report.
- Invite “Shakesperience”, a group of professional actors, to come to introduce Shakespeare and Elizabethan language to students. Read some of Shakespeare’s sonnets, and perform modified versions of several of his plays.
- Study adjective and adverb clauses and combine sentences with subordinating conjunctions, and relative pronouns.
- Vocabulary is the thread which connects the year. Our study of vocabulary provides a rich tool-box of words which help students express themselves more clearly and more precisely understand what they are reading.

Math:

- Integers and Rational Numbers
- Analyze and Use Proportional Relationships
- Analyze and Solve Percent Problems
- Generate Equivalent Expressions
- Solve Problems Using Equations and Inequalities
- Use Sampling to Draw Inferences about Population
- Probability
- Solve Problems Involving Geometry

Social Studies:

American Revolution

- Pre-Revolutionary events including the Stamp Act, Boston Massacre, Boston Tea Party, Battle of Bunker Hill, Lexington and Concord.
- Boston Massacre mock trial unit: students study primary source materials including eyewitness accounts of the Boston Massacre. They also study legal vocabulary and courtroom procedures. They then build cases and participate in a mock trial before a judge.
- Analysis of primary sources including political cartoons, prints, soldiers' accounts, diaries, and letters.
- Close reading of poetry including "Paul Revere's Ride" by Longfellow, "The Concord Hymn" by Emerson, the "Song of Marion's Men" by Bryant, and "On Being Brought from Africa" by Wheatley.
- Study of roles of African Americans, Native Americans, and women in the Revolutionary War.
- Declaration of Independence unit
- WEF sponsored activities with Historic New England including a hands on workshop exploring everyday life in the nineteenth century, a Patriot-Loyalist debate, and a life sized Revolutionary War game.

The Constitution

- Study of the first constitution, "The Articles of Confederation."
- Shays' Rebellion: includes study of Jefferson and Washington's reactions to the uprising
- The Constitutional Convention: Negotiation and compromise (Some years Historic New England comes to conduct a 3-day mock Constitutional Convention).
- 5 week unit on the entire Constitution. This unit includes study of the three branches of government, the principles of the Constitution, impeachment cases, the Bill of Rights and other amendments, and landmark Supreme Court cases.

The New Nation

- George Washington, the first cabinet, and isolationism
- The first political parties, Adams, and Jefferson
- Foreign vs. domestic policy
- Madison and the War of 1812
- Primary sources including inaugural addresses, songs, letters, political cartoons, and the journals of Lewis and Clark

Growth and Expansion

- The Industrial Revolution: including study of primary sources on Lowell and the Erie Canal.
- The Missouri Compromise
- The Monroe Doctrine
- Andrew Jackson: including many primary and secondary sources.

- The Trail of Tears
- Abolition, reform, and women’s rights

The Rainforest Artlink Program

- WEF funded 6 month program in which students create and exchange artwork with classes located in the Amazon or Guatemalan rainforest. The program is cross-curricular and all teachers in seventh grade participate to immerse students in the study of these two unique regions of the world. Students study deforestation, wildlife, art, music, history, human rights, government, foods, holidays, and recreation in these two countries as well as considering the ethics of conservation. At the end of the year, students engage in a live videoconference with partner countries in an effort to promote global awareness and citizenship.

National Geographic Bee

- Grades 5-8 participate in the National Geographic Bee over the course of three months in an effort to encourage geographic awareness and appreciation of diversity.

Science:

7th Grade Science incorporates the Next Generation Science Standards while students participate in activities that build teamwork and cooperation skills.

Themes/Topics	Projects/Activities
Skills:	
Data collection, proper graphing, longitudinal evaluation, goal setting and self-reflection.	Accessing Plus Portals for a long-term assignment that requires students to record their grades weekly and utilize Excel to graph results.
Metric Reinforcement	Gummy Bear Lab: measuring volume, mass and density in metrics and making predictions.
Interactive Notebook	Enables students to be creative, independent thinkers and writers. INBs are used for class notes as well as for other activities, to express ideas and to process the information presented in class.
Graphic Organizers	Students create visual and graphic displays that depict the relationships between facts, terms, and or ideas.
Earth and Space Science:	
Natural Hazards	Group Project that requires investigation of natural phenomena throughout the U.S. and identification of patterns and trends based on location.

Plate Tectonics	Incorporates the arts into topic by having students: <ul style="list-style-type: none"> • draw images representing types of heat transfer • singing a song about Continental Drift
Physical Science:	
Energy	Rube Goldberg Machine Contest: Students use everyday materials to construct a complex machine to complete an otherwise simple task. Focus is on potential and kinetic energy transfers within the machine.
Life Science	
Structure and Function	Students create a poster that compares a living animal/plant cell and its organelles to a city, school, factory, ballpark, etc. The place they choose must use energy, produce substances and manage waste. The organelles represent the parts of their place that carry out these processes.

Spanish:

In 7th grade Spanish Part 1, we cover the following units

1. **Friends and Students:** in this unit students learn to describe themselves and others using the Spanish articles, adjectives and the verb "To Be".
 - i. **Culture:** students talk about famous Latin artists.
2. **Family and Home:** in this unit students learn to talk about their family members and home using the verb "To Have". They also learn to tell what belongs to them and others using possessive adjectives.
 - i. **Culture:** Different types of homes/houses.
 - ii. **Project:** Family Tree Poster or PowerPoint.
3. **At home and in Class:** In this unit students learn to tell what they and others do at home using To Go, To Give and To Be. They learn to talk about school activities. Also, they learn to say where they and others go after school.

- i. **Culture:** School names in Spanish speaking countries.
 - ii. **Project:** Research of a Spanish Country. Talk about Flag, Government, Tourism, Food, Famous Person, and Currency. Students make a brochure or PowerPoint and present in front of the class.
- 4. **Going Shopping :** In this unit, Students learn to identify and describe school supplies and articles of clothing. They state color and size preferences as well as expressing amazement. They tell what belongs to them and others using Spanish regular verbs.
 - i. **Culture:** Clothing around the world. School uniforms in Spanish speaking countries
- 5. **At a Restaurant and at the Supermarket:** In this unit students learn to order food and beverages at a café. Identify some food and shop for food.
 - i. **Culture:** Talk about the differences between eating habits in the United States and Spanish speaking countries.
 - ii. **Project:** Using the country students researched in Unit 3, students make a Restaurant menu. They cook something from their menu and bring it in to share.
- 6. **Sports:** In this unit, students talk about sports, saying what they begin to, want to and prefer to do. They learn how to express likes/dislikes, what bores and interests them.
 - i. **Culture:** Discussion of the role of sports in Spanish speaking countries.
- Big Cultural Project: *Día de los Muertos*
- In November, Students learn about “Day of the Dead”. Through the unit, we compare and contrast Halloween in the United States with this Latin holiday. The history of Mexicans in the United States and Immigration.

Project: Students make an “Altar” honoring a person in their family that passed about. They learned to “celebrate” life! They also make a “Skull” which is a symbol of this holiday.

- We also start the *RainForest Artlink Program* in March in students learn more about culture when connecting with students from Guatemala and Brazil

Grade 8:

English:

Themes/Topics:

- Character Development
- Story Elements

- Creative Writing
- Narrative and Expository writing
- The Holocaust
- Genre Study

Projects:

- 3 Major Essays - Narrative, Creative, Expository
- Sway Project - book report for genre book

Math:

- Weekly theme of the week to incorporate math problems and show mini videos.
- Country project with numbers.
- Study Island
- Goats were a theme of the week with baby goats brought in.
- The 8th graders made picture books for Read Across Woodstock
- The Number System: Know that there are numbers that are not rational, and approximate them by rational numbers.
- Expressions & Equations: 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.
- Functions: Define, evaluate, and compare functions; Use functions to model relationships between quantities.
- 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 & Probability: Investigate patterns of association in bivariate data.

Social Studies:

8th Grade is a continuation of 7th grade American History.

- Northern and Southern state conflicts that lead to the Civil War
- The Civil War
- Southern Reconstruction
- Westward Expansion (Manifest Destiny)
- Growing Industrial Nation
- During the year students will develop skills of note-taking, preparing for tests, distinguishing between fact and opinion, understanding point of view, organizing information, blogs, and using primary and secondary sources.
- Most of the time classes will start off with a Today in History and National Day. Learning the importance of every current day and past days. Students will research and present their own Today in History and National Day project.

- A daily Presidential quote is put up daily. Many times we will have a discussion about what the quote really means
- Also students will research about their family on 9/11/2001. This will tie into understanding what happened to our country and their family on that day.
- Before students go to Washington D.C. they will learn about the Vietnam War, the Vietnam Wall, and research if their family or friends were impacted by the War. The students will choose someone on the Vietnam Wall. They will research the person and write a letter that will be left at the wall when they visit.

Science:

- Goal- Setting and Grade Tracking- creating data tables and circle, bar and line graphs- by hand and using Excel
- Forces and Motion- Newton's Third Law
 - Identify Newton's Three Laws of Motion
 - Create a demonstration of each one
 - Model the Conservation of Momentum
 - Engineering Ambassador- Rocket Design
 - Battlebot Design/ Wars
- Energy- Heat and Temperature/Electromagnetic Radiation
 - Waves
 - Model of the Electromagnetic Spectrum
 - Gravity- Exploration of Falling Objects
- Growth and Development of Organisms
 - Trace the embryological development- life's unity and diversity
 - Endocrine System- "You Be the Doctor" exploration
 - Reproductive System- Parent career presentation
 - Heredity
 - Natural Selection} "Crazy Creature" exploration
 - Adaptation
- The Universe- Earth and the Solar System
 - Phases- "Track the Moon" exploration
 - Modeling Eclipses
 - Tides
 - Seasons- What Causes the Seasons? (Vernier Probe exploration)
- Foss materials and activities

Spanish

- **Vocabulary Topics:** Sports, Health, Travel, Pastimes, Routine and Camping

- **Grammar:** Present tense and preterit tense of regular and irregular verbs, present progressive, definite and indefinite articles, direct and indirect object pronouns, reflexive verbs, and more.
- Students spend time throughout the school year, adding to and editing their final project “¿Quién soy yo?”, which translates to “Who Am I?”. This is a presentation about themselves, which is part of the final exam, and presented with a poster or PowerPoint presentation. Through this class, students have the opportunity to earn their Spanish I credit for The Woodstock Academy.