

## Middle School Curriculum Overview 2022-2023

## Sixth Grade Curriculum

Language Arts	Mathematics	Social Studies	Science	World Language
Reading	Foundations of Algebra 6	Ancient and Medieval	Earth Science	Spanish or French
<ul> <li>Using prior knowledge</li> <li>Figurative language</li> <li>Annotations</li> <li>Author's style</li> <li>Parts of a story</li> <li>Fact/Opinion/Bias</li> </ul>	<ul> <li>Operations with integers, fractions, mixed numbers, decimals, order of operations</li> </ul>	<ul> <li>World History</li> <li>Five Themes of Geography project</li> <li>Ancient Mesopotamia</li> </ul>	<ul> <li>Maps as Models of Earth</li> <li>Continental Drift</li> </ul>	<ul> <li>Class conducted in target language</li> <li>Introductions and descriptions of self and</li> </ul>
<ul> <li>Writing</li> <li>Compare/contrast paragraphs</li> <li>Persuasive paragraphs</li> <li>Expressive writing</li> <li>5-paragraph essays</li> <li>Research</li> <li>MLA citations</li> <li>Plagiarism</li> <li>Thesis statement</li> <li>Introductory and closing paragraphs</li> <li>Oral Presentation</li> <li>Compare/Contrast</li> <li>Socratic Seminars</li> <li>Book Talks</li> <li>Literature Circles</li> <li>Word &amp; Syntax</li> <li>Vocabulary for Achievement</li> <li>Grammar Focus: run-ons, fragments, types of sentences, clauses, phrases, punctuation, revising &amp; editing</li> </ul>	<ul> <li>Ratios, rates, percents, proportions, simple interest, percent of change</li> <li>Graphing points on a coordinate plane, various charts &amp; graphs</li> <li>Absolute value</li> <li>Roots and exponents</li> <li>Multi-step equations &amp; inequalities</li> <li>Elements of Euclidean geometry and measurement</li> <li>Measures of Central Tendency</li> <li>Probability</li> </ul>	<ul> <li>Ancient Egypt and Egypt Museum Project</li> <li>Ancient India</li> <li>Ancient China</li> <li>Ancient Greece</li> <li>Ancient Rome</li> <li>Ancestry Project</li> <li>Egypt Museum project</li> <li>Field trip to Smithsonian Natural History Museum Egypt wing.</li> <li>National Geographic Geography Bee</li> <li>Digital and library research skills</li> </ul>	<ul> <li>Plate Boundaries</li> <li>Layers of the Earth</li> <li>Properties of Minerals</li> <li>Rock Cycle</li> <li>Erosion &amp; Deposition</li> <li>Ocean</li> <li>March Mammal Madness</li> <li>Fossils</li> <li>Earth Day</li> <li>Geologic Time Scale</li> <li>Earthquake-proof structure design &amp; test project</li> <li>Volcano construction and eruption</li> <li>Garden &amp; Compost</li> </ul>	<ul> <li>others</li> <li>Interpersonal speaking, reading, and writing tasks</li> <li>Reading, listening, and viewing of authentic texts &amp; video clips</li> <li>Rehearsed and non-rehearsed speaking and writing tasks</li> <li>Present tense communication</li> <li>Reading and interpretation of a short novel in present tense</li> <li>Hispanic and Francophone culture/holidays</li> <li>Field trip</li> </ul>
Literature Studies Fiction The Egypt Game Where the Mountain	STEM	Performing Arts	Visual Arts	Physical Education
<ul> <li>Meets the Moon</li> <li>Short Stories The D'Aulaires Book of Greek Myths</li> <li>Special Programs</li> <li>Emphasis on transition to middle school</li> <li>Student Council</li> <li>Blue and Green Spirit teams and year-round competitions</li> <li>Service Learning</li> </ul>	<ul> <li>Digital Citizenship</li> <li>Computer Game Design</li> <li>Circuits</li> <li>SeaPerch underwater robotics project</li> <li>Reinforcing research skills with NoodleTools</li> <li>Cross curricular engineering projects</li> </ul>	<ul> <li>String orchestra and band programs</li> <li>Vocal music program</li> <li>Voluntary Show Choir performs at school and community events</li> <li>Winter and Spring Concerts, Veterans Day and Grandparents Day performances</li> <li>Learn major scales up to three sharps and three flats</li> </ul>	<ul> <li>Elements of Art : Color, Line, Texture, Value, Proportion</li> <li>Sketching, painting, collage, printmaking</li> <li>Sculpture, ceramics, weaving, modeling, assemblage, and carving</li> <li>Art History, styles, movements, historical artists.</li> <li>Cultural art styles, movements, and traditions.</li> <li>Compare/Contrast</li> <li>Analysis, critique, value, craftsmanship, opinion</li> </ul>	<ul> <li>Interscholastic team sports across three seasons</li> <li>Emphases on sportsmanship, leadership, and team play.</li> <li>Physical conditioning is prioritized in all activities.</li> <li>Soccer, Field Hockey, Cross Country, Lacrosse, Tennis, Volleyball, Basketball, Swimming, Track</li> </ul>

## **Seventh Grade Curriculum**

Language Arts	Mathematics	Social Studies	Science	French/Spanish I
Reading Character Analysis Annotation Theme Inference Author's purpose Fact/Opinion/Bias Writing Narrative Vignette Persuasive Essay Literary Analysis paragraphs MLA format Research Topics for Persuasive Essay Propaganda project with MWH unit Oral Presentation Body Biography presentation Literature Circles Socratic Seminar Persuasive Debates Word & Syntax Vocabulary for Achievement - First Course - word study Continued Grammar Focus: run-ons, fragments, types of sentence, clauses, phrases, punctuation, revising & editing	<ul> <li>Pre-Algebra</li> <li>Operations with integers, fractions, decimals, absolute value, order of operations</li> <li>Exponents &amp; Square roots</li> <li>Multi-step equations &amp; inequalities</li> <li>Ratios, rates, proportions, percents, simple interest, percent of change</li> <li>Linear Functions</li> <li>Pythagorean Theorem</li> <li>Elements of geometry &amp; measurement</li> <li>Probability &amp; Statistics</li> <li>Algebra I</li> <li>Solving equations &amp; inequalities- including absolute value</li> <li>Literal Equations</li> <li>Relations &amp; Functions</li> <li>Linear Equations &amp; Direct/Inverse Variation</li> <li>Systems of equations &amp; linear inequalities</li> <li>Exponents &amp; Exponents &amp; Exponents &amp; Exponents &amp; Exponents &amp; Exponential functions</li> <li>Polynomials &amp; Factoring</li> <li>Quadratic Functions &amp; applications</li> <li>Eligible for high school credit</li> </ul>	<ul> <li>Modern World History</li> <li>Renaissance through Exploration</li> <li>Enlightenment and Revolution</li> <li>Industrial Age and Imperialism</li> <li>World Wars through the Cold War</li> <li>Critical thinking and decision making</li> <li>Time Travel Historical Interview Project</li> <li>National History Day website design project and competition</li> <li>Field trip to Holocaust Museum</li> <li>National Geographic Geography Bee</li> </ul>	Life ScienceCell Structure and ProcessesDNAGenetics and HeredityEvolutionSix Kingdoms of Living ThingsEcologyLabs and extensive use of microscopesIntegrated use of technologyInquiry and critical thinkingScience Process SkillsData collection and analysisFour-day fieldwork at MarineLab in Key Largo, FL	<ul> <li>Class conducted in target language</li> <li>Introductions and descriptions of self and others</li> <li>Interpersonal speaking, reading, and writing tasks</li> <li>Reading, listening, and viewing of authentic texts &amp; video clips</li> <li>Rehearsed and non-rehearsed speaking and writing tasks</li> <li>Present tense &amp; introduction of past tense communication</li> <li>Reading and interpretation of a short novels in present tense</li> <li>Hispanic and Francophone culture/holidays</li> <li>Field trip</li> </ul>
<ul> <li>Short Stories</li> <li>Essays: "This I Believe" excerpts</li> <li>Fiction: Harbor Me Prisoner B-3087 A Long Walk to Water</li> <li>Literature Circles (3 titles):</li> <li>Homecoming</li> <li>It Ain't So Awful, Falafel</li> <li>The Night Diary</li> </ul> Special Programs <ul> <li>Student Council</li> <li>7th grade buddies with Kindergarten for book writing</li> </ul>	<ul> <li>STEM</li> <li>Digital Citizenship</li> <li>HTML Web Design</li> <li>Biomedical Engineering</li> <li>Microcontrollers and programming projects</li> <li>3D Printing</li> <li>Renewable Energy</li> <li>Cybersecurity and Network Infrastructure</li> </ul>	<ul> <li>Performing Arts</li> <li>String orchestra and band programs</li> <li>Vocal music program</li> <li>Voluntary Show Choir performs at school and community events</li> <li>Winter and Spring Concerts, Veterans Day and Grandparents Day performances</li> <li>Learn and perform all twelve main scales</li> </ul>	<ul> <li>Visual Arts</li> <li>Elements of Art : Color, Line, Space, Emphasis, Proportion</li> <li>Sketching, painting, collage, printmaking</li> <li>Sculpture, ceramics, weaving, modeling, assemblage, and carving</li> <li>Art History, styles, movements, historical artists</li> <li>Cultural art styles, movements, and traditions</li> </ul>	<ul> <li>Physical Education</li> <li>Interscholastic team sports across three seasons</li> <li>Emphases on sportsmanship, leadership, and team play.</li> <li>Physical conditioning is prioritized in all activities.</li> <li>Soccer, Field Hockey, Cross Country,</li> </ul>
		twelve major scales	<ul> <li>Compare and Contrast</li> <li>Analysis, critique, value, craftsmanship, opinion</li> </ul>	Lacrosse, Tennis, Volleyball, Basketball, Swimming,

## **Eighth Grade Curriculum**

Language Arts	Mathematics	Social Studies	Science	French/Spanish II
Reading Annotation Tone/Mood Poetic Devices Shakespearean Language Figurative Language Anthor's Purpose Writing Literary Analysis Personal Narrative Poetry Reflective/Capstone MLA Format Research Shakespeare Background Project The Lord of the Flies History and Current Events Oral Presentation Poetry Coffee House Shakespeare performance Capstone presentation Word & Syntax Vocabulary for Achievement - Second Course - word study Grammar Focus: run-ons, fragments, types of sentence, clauses, phrases,	Algebra I Solving equations & inequalities- including absolute value Literal Equations Relations & Functions Linear Equations & Direct/Inverse Variation Systems of equations & linear inequalities Exponents & Exponential functions Polynomials & Factoring Quadratic Functions & applications Radical Function Rational Functions Eligible for high school credit Geometry Points, Lines & Planes Deductive Reasoning & Proofs Parallel Lines & Planes Congruent & Similar Triangles Properties of Parallelograms & Quadrilaterals Similar & Right Triangles Trigonometry Ratios & Applications Circles Area & Volume of plane figures, solids Transformations & Constructions Eligible for high school credit Meets admissions for the Academies of Loudoun and TJ HS for Science & Technology	<ul> <li>Civics &amp; Economics</li> <li>Economics, including stock market game</li> <li>Constitution, Federal, State, and Local govt</li> <li>Debate unit, evening debate program</li> <li>Guest speakers inc. private/public figures</li> <li>40+ current event presentations and discussions</li> <li>National History Day documentary production and competition</li> <li>Field trips to hear a Supreme Court oral argument and tour Capitol, White House, National Law Enforcement Museum</li> <li>National Geographic Geography Bee</li> </ul>	<ul> <li>Physical Science</li> <li>Physical and chemical properties of matter</li> <li>Mixtures and compounds</li> <li>Elements and the Periodic Table</li> <li>Chemical Reactions</li> <li>Forces in Motion</li> <li>Forces in Fluids</li> <li>Energy and Energy Transformations</li> <li>Integrated use of technology</li> <li>Inquiry and critical thinking</li> <li>Science Process Skills</li> <li>Mousetrap Car design, build &amp; race project</li> </ul>	<ul> <li>Class conducted in target language</li> <li>Introductions and descriptions of self and others</li> <li>Interpersonal speaking, reading, and writing tasks</li> <li>Reading, listening, and viewing of authentic texts &amp; video clips</li> <li>Rehearsed and non-rehearsed speaking and writing tasks</li> <li>Present &amp; past tense communication</li> <li>Reading and interpretation of a short novels in present &amp; past tenses</li> <li>Hispanic and Francophone culture/holidays</li> <li>Field trip</li> </ul>
punctuation, revising & editing Literature Studies:	STEM	Performing Arts	Visual Arts	Physical Education
<ul> <li>Short Stories</li> <li>Essays: Personal Narrative</li> <li>Poetry</li> <li>Fiction: To Kill a Mockingbird</li> <li>Plays: Macbeth</li> </ul> Special Programs <ul> <li>Student Council</li> <li>Poetry Coffee House</li> <li>Shakespeare performance</li> <li>5th grade buddies to support publishing books</li> </ul>	<ul> <li>Digital Citizenship</li> <li>Video Editing with Premiere Pro</li> <li>Python coding</li> <li>Photoshop Magazine Covers</li> <li>"Make the World a Better Place" Engineering Challenge</li> <li>Vex Robotics build/program Challenge</li> <li>8th Grade Celebration Videos</li> <li>Technology Ethics and Current Events</li> </ul>	<ul> <li>String orchestra and band programs</li> <li>Vocal music program</li> <li>Voluntary Show Choir performs at school and community events</li> <li>Winter and Spring Concerts, Veterans Day and Grandparents Day performances</li> <li>Memorize and perform all twelve major scales</li> </ul>	<ul> <li>Elements of Art : Color, Value, Proportion, Unity, Variety</li> <li>Sketching, painting, collage, printmaking</li> <li>Sculpture, ceramics, weaving, modeling, assemblage, and carving</li> <li>Art History, styles, movements, historical artists</li> <li>Cultural art styles, movements, and traditions</li> <li>Compare and Contrast</li> <li>Analysis, critique, value, craftsmanship, opinion</li> </ul>	<ul> <li>Interscholastic team sports across three seasons</li> <li>Sportsmanship, leadership, and team play.</li> <li>Soccer, Field Hockey, Cross Country, Lacrosse, Tennis, Volleyball, Basketball, Swimming, Track</li> <li>Physical conditioning is prioritized in all activities.</li> </ul>