



Hartland School

Grade 6 Curriculum at a Glance

Our curriculum is designed to **Educate for Excellence** as we *inspire* & *guide* students to:

- Be responsible and respectful community members
 - Demonstrate initiative, perseverance and flexibility
- Be curious and value risk taking as part of the learning process
- Access and analyze information, ask questions and formulate opinions
 - Communicate effectively and efficiently

Reading Units of Study		
Unit 1 A Deep Study of Character	Unit 2 Tap the Power of Nonfiction	Unit 3 Social Issues
In this unit, students will examine characters; what motivates them, and what makes them behave in particular ways. Students will then examine how settings help to shape characters. Finally, students will examine how authors use character as a vehicle for the theme of the text.	In this unit, students will determine central ideas as they rethink their initial ideas about the text in light of new evidence. They will learn from stories that are embedded in the nonfiction texts, and will synthesize ideas across texts.	In this unit, students will learn how power, perspective, and conflicts affect characters, and will be pushed to be more precise in their analysis, to consider cause and effect, to weigh issues, and to evaluate choices. Further in the unit, students will examine issues that are more systemic in nature. Ultimately, by studying and reflecting on characters in conflict, students will be asked to resolve to being upstanders versus bystanders.

Writing Units of Study		
Unit 1 Narrative Writing	Unit 2 Narrative Writing: Realistic Fiction	Unit 3 Argumentative Essay
In this unit, students will branch out from personal narratives to write realistic fiction stories. They will create characters, settings that are a part of the story, and will develop issues and problems that require complex resolution, while incorporating figurative language and symbolism.	In this unit, students will develop research skills. They will learn to evaluate and cite sources. Students will work to create strong claims and support them with appropriate evidence.	In this unit, students will choose a social issue that is important to them and make a strong claim. They will pull on the research skills learned in the previous unit to support their claims and develop well-constructed arguments, consider alternative opinions and write a strong conclusion.

Grammar

Grammar instruction supports students in noticing and applying the conventions of the English language. Applying this learning to their everyday speaking and writing skills will elevate the ability of the students to express themselves.

Unit 1	Unit 2	Unit 3
<p>Students will learn the following grammar skills:</p> <ul style="list-style-type: none">• Subjects in sentences and fragments• Making sense of simple sentences• Capitalize proper nouns• Capitalizing shortcuts: initials, initialisms, and acronyms• Question Marks in Dialogue• Introducing pronouns• Reflexive pronouns <p>Vocabulary Skills Students will learn Greek and Latin roots and apply them in authentic writing situations.</p>	<p>Students will learn the following grammar skills:</p> <ul style="list-style-type: none">• Reflexive and intensive pronouns• Comma usage• Relative pronoun closers• Correlative conjunctions• Appositives• Using commas with interrupters <p>Vocabulary Skills Students will learn Greek and Latin roots and apply them in authentic writing situations.</p>	<p>Students will learn the following grammar skills:</p> <ul style="list-style-type: none">• Essential and Nonessential Clauses that tell which one• What makes a clause essential• Using parentheses <p>Vocabulary Skills Students will learn Greek and Latin roots and apply them in authentic writing situations.</p>

Mathematics

Unit 1 Area and Surface	Unit 2 Introducing Ratios	Unit 3 Unit Rates and Percentages	Unit 4 Dividing Fractions	Unit 5 Arithmetic in Base Ten	Unit 6 Expressions and Equations	Unit 7 Rational Numbers	Unit 8 Data Sets and Distributions
<p>In this unit, students find areas of polygons by decomposing, rearranging, and composing shapes. They learn to use the terms “base” and “height” and find areas of parallelograms and triangles. Students approximate areas of non-polygonal regions by polygonal regions. They represent polyhedra with nets and find their surface area.</p>	<p>In this unit, students recognize when two ratios are equivalent. They represent ratios as expressions, and represent equivalent ratios with double number line diagrams, tape diagrams and tables. They use these terms and representations in reasoning about situations involving color mixtures, recipes, unit pricing, and constant speed.</p>	<p>In this unit, students recognize that equivalent ratios have equal unit rates. They represent percentages with tables, tape diagrams, double number line diagrams and as expressions. They use these terms and representations in reasoning about situations involving unit price, constant speed, and measurement conversion.</p>	<p>In this unit, students examine how the size of the numerator and denominator affect the size of their quotient when the numerator or denominator is a fraction. They compute quotients and fractions and solve problems involving lengths and areas of figures with fractional side lengths and extend the formula for volume of a right rectangular prism to prisms. Students learn to describe a situation that given equations could represent. They use tape diagrams and equations in reasoning about situations that involve multiplication and division of fractions.</p>	<p>In this unit, students learn an algorithm for division. Students extend their understanding of place value and the properties of operations. Students describe decimal values up to the hundredths, generalize about multiplication by the power of ten, critique approaches to operations on decimals and justify strategies for finding quotients with reference to base-ten diagrams and efficient algorithms.</p>	<p>In this unit, students write coefficients next to variables without a multiplication symbol. They work with expressions that have positive whole number exponents, and whole number, fraction, or variable bases, using properties of exponents, strategically to evaluate these expressions. They represent groups of equivalent ratios as equations and make connections between tables, graphs, and linear equations that represent the same relationship.</p>	<p>In this unit, students interpret signed numbers in context. They plot points with signed rational number coordinates on the number line, and recognize and use the connection between relative position of two points on the number line and inequalities involving the coordinates of the points. Students will also use absolute value notation and graph and solve inequalities. Students plot pairs of signed number coordinates in the plane and calculate horizontal and vertical distances between two points.</p>	<p>In this unit, students study variables. They make and interpret histogram bar graphs, tables of frequencies, and box plots. They describe distributions using terms such as; symmetrical, peaks, gaps, and clusters. They work with mean, average, and median. They will also work with measures of variability understanding and using the terms; range, mean absolute deviation, quartile, and interquartile range.</p>

Science Units of Study

Unit 1 Light & Matter	Unit 2 Thermal Energy	Unit 3 Weather, Climate, & Water Cycling	Unit 4 Plate Tectonics & Rock Cycling	Unit 5 Natural Hazards (Tsunamis)	Unit 6 Cells & Systems
<p>In this unit, students have an initial experience with a one-way mirror. Students organize and write down their initial ideas and then test those ideas by using a scaled box model to figure out what is really happening. Using two boxes combined together with a one-way mirror in between the two, students vary the presence of light in the two boxes to figure out how a one-way mirror works and improve their initial models so they accurately explain how light is reflected and transmitted through materials and the basics of how these behaviors of light result in the images we see.</p>	<p>In this unit, students explore whether a new plastic cup sold by a store keeps a drink colder for longer compared to the regular plastic cup that comes free with the drink. Students investigate the different cup features they conjecture are important to explaining the phenomenon. Through a series of lab investigations and simulations, students find that there are two ways to transfer energy into the drink: (1) the absorption of light and (2) thermal energy from the warmer air around the drink. They are then challenged to design their own drink container that can perform as well as the store-bought container, following a set of design criteria and constraints.</p>	<p>In this unit, students explain both small-scale storms and mesoscale weather systems as well as climate-level patterns of precipitation. The unit starts out with students exploring videos of hailstorms from different locations across the country at different times of the year. Students will investigate to explain how ice can be falling from the sky on a warm day, how clouds form, why some clouds produce storms with large amounts of precipitation and others don't, and how all that water gets into the air in the first place. They will examine maps, transcripts, and video to analyze what could be causing large-scale storms and why a large-scale storm would end up affecting a different part of the country a day later.</p>	<p>In this unit, students are presented with the 2015 Himalayan earthquake at Mt. Everest. Students find that Mt. Everest has grown in elevation over the years and that Mt. Everest is steadily moving to the NE every year. This leads to questions about whether changes are happening to other mountains in the world. Students analyze data from five other mountain peaks and their surroundings. Over the course of the unit, students analyze data from many locations and time periods, applying the ideas of temporal and spatial scales accompanied by causal and correlational relationships to determine the reason why mountains and landscapes grow, move, and shrink.</p>	<p>In this unit, students experience a devastating natural event that caused major flooding in coastal towns of Japan. Students think about ways to detect tsunamis, warn people, and reduce damage. Students will determine where tsunamis occur, how they form, how they move across the ocean, and what happens as they approach shore. They will consider combinations of engineering design solutions and technologies to mitigate the effects of tsunamis. Students then evaluate different design solutions and technologies by identifying criteria and constraints and using a systematic process to rate the solutions and identify trade-offs. Finally, students apply these science ideas to consider how to communicate about another natural hazard to stakeholders in a community.</p>	<p>In this unit, students hear about an injury that happened to a middle school student. They analyze doctor reports and develop an initial model for what is going on in our body when it heals. Students investigate what the different parts of our body are made of, from the macro scale to the micro scale. They figure out parts of our body are made of cells and that these cells work together for our body to function. Next they investigate healing by watching a timelapse of a knee scrape. Then students investigate what happens when cells make more cells, what cells need to make more cells, and how cells get what they need to make more cells. Students return to the healing timeline they made at the start of the unit and apply what they have figured out about the interactions between the different systems in the body.</p>

Social Studies Units of Study

<p style="text-align: center;">Unit 1 Our World & Culture Africa</p>	<p style="text-align: center;">Unit 2 Interdependence, North America, Central America, South America</p>	<p style="text-align: center;">Unit 3 Asia & Oceania</p>	<p style="text-align: center;">Unit 4 Europe & Global Responsibility</p>
<p>In this unit, students will learn about the regions and subregions of the world. They will review geographic terms and discuss world time zones. Students will discuss culture, including cultural borrowing, cultural diffusion and common institutions. They will discuss how political boundaries that cut across cultural regions impact the people of those regions and will define demographic terms (e.g., ethnic group, religious group and linguistic group).</p> <p>Students will use maps to study the location and physical characteristics of the country or countries in Eastern Africa, Middle Africa, Northern Africa, Southern Africa, and Western Africa. They will also discuss the population, government, climate, economy and culture. The focus is on the contemporary world, but historical information is included where needed to help students understand the people, government and social condition of the region.</p>	<p>In this unit, students will identify different types of economies (traditional, market, command, etc.) and discuss the benefits and limitations of each. They will examine the interconnected nature of the world's economy, including trade balance, supply and demand, and the impact of technology on world markets.</p> <p>Students will study the location and physical characteristics of Canada, USA, Mexico, Central & South America, as well as the Caribbean Islands. They will also discuss the population, government, climate, economy and culture of the country. The focus will be on the contemporary world, but historical information will be included where needed to help students understand the people, government and social condition.</p>	<p>In this unit, students will study the location and physical characteristics of the regions of Asia. They will also discuss the population, government, climate, economy and culture of the country. The focus will be on the contemporary world, but historical information will be included where needed to help students understand the people, government and social condition.</p> <p>Students will study the location and physical characteristics of Oceania: Australia, New Zealand, Melanesia, Micronesia, and Polynesia.. They will also discuss the population, government, climate, economy and culture of the country. The focus will be on the contemporary world, but historical information will be included where needed to help students understand the people, government and social condition.</p>	<p>In this unit, students will study the location and physical characteristics of the regions of Europe. They will also discuss the population, government, climate, economy and culture of the country. The focus will be on the contemporary world, but historical information will be included where needed to help students understand the people, government and social condition.</p> <p>Students will learn the difference between globalization and globalism, and will learn about global organizations such as NATO and the United Nations. Students will learn about global issues such as poverty and malnutrition, and humanitarian efforts to effect change on a global level. Students will also learn about global responsibility, including human impact on the environment.</p>