

YEAR AT A GLANCE: GRADE 7 (updated Dec 2022)

	<u>UNIT 1</u>	<u>UNIT 2</u>	<u>UNIT 3</u>	<u>UNIT 4</u>	<u>UNIT 5</u>	<u>UNIT 6</u>
Title	Energy	Weather & Climate	Earth's Resources	Chemical Reactions	Fields & Interactions	Waves
Unit Length (weeks taught)	7 weeks	7 weeks	6 weeks	5 weeks	6 weeks	5 weeks
Enduring Understanding (The big ideas, the "why" we include these ideas)	SEPUP Unit Issue: How can people manipulate energy transfer and transformation to use energy more efficiently?	SEPUP Unit Issue: How does the weather affect people and how do people affect the climate?	SEPUP Unit Issue: How is a growing human population affecting the use and availability of natural resources?	SEPUP Unit Issue: Chemical reactions can be used to solve problems but can also create problems. How do people use chemical reactions to solve problems?	SEPUP Unit Issue: How do different types of force fields help us design transportation?	SEPUP Unit Issue: How are waves both helpful and harmful?
Essential Questions (What do we want students to think about)	Why do light bulbs produce different amounts of heat? Why does my cell phone break when it falls from my hand while I am walking but is less likely to break when it falls from my pocket when I am sitting?	What causes differences in weather and climate? How can we predict weather? Is the climate changing?	What are natural resources? Where and how are natural resources found and used? What role have geoscience processes	What are the desired products and wastes from a chemical reaction? What is happening when something fizzes, changes color, or changes temperature when you mix substances?	How do engineers solve problems related to gravity? What determines the strength of gravitational forces? How do magnetic forces work? How can engineers	How do different types of waves transfer energy? How can exposure to sunlight harm humans? How much sound energy is safe? How can wave technology be used

	<p>What are the similarities and differences among these different types of energy?</p> <p>What is happening when a substance gets warmer or cooler?</p> <p>Do we mean the same thing when we talk about energy transfer and transformation in other fields of science?</p> <p>If energy is conserved, why do people say it is produced or used?</p>		<p>played in the formation of natural resources?</p> <p>How do you use evidence to determine when major events in Earth's history have occurred?</p> <p>What decisions do people make that affect natural resource consumption?</p>	<p>How is mass conserved during a chemical reaction?</p> <p>How can chemical reactions be used to provide energy?</p> <p>How can chemical reactions be used to clean up waste?</p>	<p>solve problems using magnetism and gravity?</p> <p>What are fields?</p> <p>What is static electricity?</p> <p>How can we generate more static electricity?</p> <p>How can engineers solve problems using electric fields?</p> <p>How are electric fields and magnetic fields related?</p> <p>How can engineers solve problems using electricity, magnetism, and gravity?</p>	<p>to enhance or protect human senses?</p>
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