

# HCPS Grade 6 Science Course

Unit & Title	MSDE/NGSS Science Standards	Lesson Topic	
<p><b>Unit 1 - Astronomy</b></p> <p><i>7 weeks</i></p>	<p><a href="#">ESS 1-1</a>: Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.</p> <p><a href="#">ESS 1-2</a>: Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.</p> <p><a href="#">ESS 1-3</a>: Analyze and interpret data to determine scale properties of objects in the solar system.</p>	Experience 1	Jump Height Lab
		Experience 2	Orbital Paths
		Experience 3	Earth-Sun-Moon System (Fieldtrip to planetarium)
		Experience 4	Model of the Earth-Sun System/Seasons
		Experience 5	Planetary Atmospheres
		Experience 6	Scale Properties of Objects in the Solar System

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<p><b>Unit 2 - Geology</b></p> <p><i>9 Weeks</i></p>	<p><a href="#">ESS 1-4</a>: Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history.</p> <p><a href="#">ESS 2-2</a>: Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.</p> <p><a href="#">ESS 2-3</a>: Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.</p> <p><a href="#">ESS 3-2</a>: Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.</p>	Experience 1	Earth's Features
		Experience 2	Continental Drift
		Experience 3	Plate Tectonics
		Experience 3a	Environmental Disasters: Volcanoes, Earthquake, Tsunami
		Experience 4	Weathering
		Experience 4a	Floods
		Experience 4b	Levees
		Experience 5	Fossil Evidence
		Experience 6	Relative Dating

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<p><b>Unit 3 - Earth's Systems</b></p> <p><i>10 weeks</i></p>	<p><a href="#">ESS 2-1</a>: Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.</p> <p><a href="#">ESS 2-4</a>: Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.</p> <p><a href="#">ESS 3-1</a>: Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.</p> <p><a href="#">ESS 3-3</a>: Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.</p> <p><a href="#">ESS 3-4</a>: Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.</p>	Experience 1	Earth as a System
		Experience 2	Into to Rock Formation
		Experience 3	How Rocks Cycle
		Experience 4	Earth's Natural Resources
		Experience 5	Petroleum Distribution
		Experience 6	Mining and Population Increase
		Experience 7	Water Cycle
		Experience 7a	Freshwater
		Experience 8	Solar Still
		Experience 9	Connecting Systems
		Experience 9a	Chesapeake Bay Health
		Experience 9b	Chesapeake Bay / Blue Crabs

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<p><b>Unit 4 - Meteorology</b> <i>10 weeks</i></p>	<p><a href="#">ESS 2-5</a>: Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.</p> <p><a href="#">ESS 2-6</a>: Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.</p> <p><a href="#">ESS 3-2</a>: Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.</p> <p><a href="#">ESS 3-5</a>: Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.</p>	Experience 1	Exploring with Density
		Experience 2	Layers of Atmosphere
		Experience 3	Air Pressure
		Experience 4	Unequal Heating of Earth
		Experience 5	Hot Air Balloon
		Experience 6	Density & Air Masses
		Experience 7	Natural Disasters: Wildfires, Hurricanes, Tornadoes
		Experience 8	Hurricane Katrina
		Experience 9	Tracking Hurricanes
		Experience 10	Factors that Affect Climate
		Experience 11	Climographs
		Experience 12	Global Climate Change