

**Science – Grade 8 Earth Science
District 2853**

Month	Content	Performance Standards Addressed	Skills for Student Achievement	Assessment
	Astronomy – Original Science	IA	<ul style="list-style-type: none"> · Evaluate calendars from different ancient civilizations · Explain how our modern calendar evolved · Identify early astronomers 	<ul style="list-style-type: none"> · Tests · Note taking
	Mapping Stars	IA	<ul style="list-style-type: none"> · Describe constellations and explain how astronomers use them · Demonstrate how to measure altitude using an astrolabe · Explain right ascension and declination · Evaluate the scale of the universe 	<ul style="list-style-type: none"> · Tests · Note taking · Astrolabe lab project
		5.1, 5.2, 5.3, 5.4	<ul style="list-style-type: none"> · Compare and contrast reflecting telescopes with retracting telescopes · Explain why the atmosphere is an obstacle to astronomers and how they over come it 	<ul style="list-style-type: none"> · Tests · Note taking
Weeks 3-5		5.1, 5.2, 5.3, 5.4	<ul style="list-style-type: none"> · List the names of the planets and the order in which they orbit the sun · Describe 3 ways that the inner and outer planets are different from each other 	<ul style="list-style-type: none"> · Tests · Note taking · Rubric scoring for solar system events poster
		5.1, 5.2, 5.3, 5.4	<ul style="list-style-type: none"> · Describe the current theory for the origin of the Earth's moon · Describe and diagram the causes and phases of the Earth's Moon · Describe the differences between a solar and a lunar eclipse 	<ul style="list-style-type: none"> · Tests · Note taking · Rubric scoring for solar system events poster
		5.1, 5.2, 5.3, 5.4	<ul style="list-style-type: none"> · Explain why comets, asteroids, meteoroids are important in the study of the formation of the solar system · Compare the different types of asteroids with the different types of meteoroids 	<ul style="list-style-type: none"> · Tests · Note taking · Rubric scoring for solar system events poster
Weeks 6-8		4.1, 4.2, 4.3, 4.4	<ul style="list-style-type: none"> · Identify and describe the layers of the Earth by their composition and by their physical characteristics · Define tectonic plate · Describe Wegener's Theory of continental drift and why it was not accepted · Explain how sea-floor 	<ul style="list-style-type: none"> · Note taking · Tests · Geopatterns globe · A voyage through a time lab · Geoblocks: pie slice of earth

			<ul style="list-style-type: none"> · spreading provides a way for continents to move · Describe how new oceanic crust forms at mid-ocean ridges · Describe the 3 forces thought to move tectonic plates · Describe the 3 types of tectonic boundaries · Describe the major types of folds · Explain how the 3 major types of faults differ · Describe the various types of mountains and how they form · Explain how earthquakes and tectonic boundaries are related 	
Weeks 9-10			<ul style="list-style-type: none"> · Describe mechanical weathering and its agents · Describe chemical weathering and its agents · Explain the various factors that affect the rates of weathering · Define soil and 3 important benefits it provides · Describe the 3 soil horizons · Explain the difference between residual and transported soil · Describe 3 methods of preventing soil erosion 	<ul style="list-style-type: none"> · Note taking · Tests · Lab: Soil Testing
Weeks 10-12		1, 2, 3.1, 3.2, 3.3, 3.4, 3.5	<ul style="list-style-type: none"> · Describe a drainage basin · Explain the major factors that affect the rate of stream erosion · Identify the stages of river development · Describe the different types of stream deposits and erosional features 	<ul style="list-style-type: none"> · Note taking · Tests · Geoblock: Drainage patterns
			<ul style="list-style-type: none"> · Describe and Explain: Shoreline Erosion and deposition · Wind Erosion and deposition · Isle erosion and deposition and the features caused by each · Explain how gravity affects erosion and deposition 	<ul style="list-style-type: none"> · Agents of erosion and deposition newsletter
Week 15	Hydrosphere Project	1, 2, 3.1, 3.2, 3.3, 3.4, 3.5	<ul style="list-style-type: none"> · Clearly explain the process of the hydrosphere and its connection to land formations 	<ul style="list-style-type: none"> · Rubric scoring: Hydrosphere Project · Oral presentation

<p>Weeks 16-17</p>	<p>Weather</p>	<p>4.1, 4.2, 4.3, 4.4</p>	<ul style="list-style-type: none"> · Define relative humidity · Explain what dew point is and its relation to condensation · Describe the 3 major cloud formations · Describe the 4 types of precipitation · Describe the 4 major types of air masses and what characterizes each · Describe the 4 major types of fronts and how they relate to weather changes · Describe the formation and characteristics of tornadoes, thunderstorms, and hurricanes · Describe the different types of weather instruments used to take weather measurements · Explain how to interpret a weather map and why they are useful 	<ul style="list-style-type: none"> · Notes · Tests · Weather instrument construction lab · Weather journal
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