Quarter	Content	Skills	Assessments	Eligible content
1	Earth's water systems. Fresh water vs salt water. Wetlands and watersheds. Water resources	Water cycle. Composition, density, and electric conductivity of fresh and salt water. Wetlands, oceans, river systems, lakes, ponds, aquifers. Supply and demand, pollution, droughts and floods, biological diversity.	To describe the water cycle and the physical processes on which it depends. Compare and contrast fresh and salt water systems based on their physical characteristics. Describe the relationships among wetlands, oceans, river systems and watersheds. Identify the importance of water as a resource including its uses, quality and tapping future uses of water.	S8.D.1.3.1 S8.D.1.3.2 S8.D.1.3.3 S8.D.1.3.4
2	The rock cycle. Earth's Interior. Plate tectonics. Earthquakes and Volcanoes.	Types of rock, rock processes, formation of rock. Earth's layers, convection currents and heat transfer. Continental drift, Pangaea, sea- floor spreading, plate boundaries. Volcanic eruptions, mountain building, formation and breakdown of land, earthquakes.	Explain the rock cycle and changes that occur within the Earth that affect the formation and breakdown of rock including rocks indigenous to Pennsylvania. To identify and describe the different layers of the Earth and processes that effect them. Identify processes that shape and effect the Earth. Compare and contrast geological processes and how they help shape the Earth.	S8.D.1.1.1 S8.D.1.1.2
3	Earthquakes and Volcanoes. The Atmosphere. Types of weather. Climate.	Volcanic eruptions, mountain building, formation and breakdown of land, earthquakes. Composition of the atmosphere, air quality. Storms, fronts, air masses, predicting weather. Climate causes, climate change.	Compare and contrast geological processes and how they help shape the Earth. Explain how patterns of the atmosphere affect local and regional weather and climate. Describe different types of weather, their development and their affect on the environment. How long-term changes in climate affect the environment.	S8.D.1.1.2 S8.D.2.1.2 S8.D.2.1.1

COURSE
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4	Weather Patterns.	Weather patterns, air masses,	Tests, Quizzes, Projects, Labs,	S.8.D.2.1.3
	Solar System, Earth,	Frontal systems, storms, reading a	Notebooks.	S.8.D.2.1.1
	Moon, Sun, Stars,	weather map.		S.8.D.3.1.1
	Galaxies, Universe.	Causes of seasons, phases of the		S.8.D.3.1.2
	Exploring Space	moon, ellipses, life cycle of stars.		S.8.D.3.1.3
		Structure of the sun.		S.8.A.1.2.1
		Exploring space, rocketry, space		
		program.		