

Earth Science

Strand	Common Curriculum Goal	Content Standard	Standard	Unit Name	Course Topic Description
SC.CM.SI Scientific Inquiry	Formulate and express scientific questions or hypotheses to be investigated.	Make observations. Formulate and express scientific questions or hypotheses to be investigated based on the observations.	SC.CM.SI.01 Based on observations and scientific concepts, ask questions or form hypotheses that can be answered or tested through scientific investigations.		
SC.CM.SI Scientific Inquiry	Design safe and ethical scientific investigations to address questions or hypotheses.	Design scientific investigations to address and explain questions or hypotheses.	SC.CM.SI.02 Design a scientific investigation that provides sufficient data to answer a question or test a hypothesis.		
SC.CM.SI Scientific Inquiry	Conduct procedures to collect, organize, and display scientific data.	Collect, organize, and display scientific data.	SC.CM.SI.03 Collect, organize, and display sufficient data to facilitate scientific analysis and interpretation.	Minerals, Rocks, and the Rock Cycle	Minerals Lab Rocks Lab
SC.CM.SI Scientific Inquiry	Analyze scientific information to develop and present conclusions.	Analyze scientific information to develop and present conclusions.	SC.CM.SI.04 Summarize and analyze data, evaluating sources of error or bias. Propose explanations that are supported by data and knowledge of scientific terminology.	Minerals, Rocks, and the Rock Cycle	Minerals Lab Rocks Lab
SC.CM.ES Earth and Space Science	Understand the properties and limited availability of the materials which make up the Earth.	Identify the structure of the Earth system and the availability and use of the materials that make up that system.	SC.CM.ES.01 Describe how the importance and use of resources has changed over time with changes in economic and technological systems. SC.CM.ES.01.01 Predict the consequences of increased consumption of renewable and non-renewable resources.	Weathering, Erosion, and Deposition	Discussion Boards 7 (Dirt) and 8 (Waterworld)
SC.CM.ES Earth and Space Science	Understand changes occurring within the lithosphere, hydrosphere, and atmosphere of the	Explain and analyze changes occurring within the lithosphere, hydrosphere, and atmosphere of the	SC.CM.ES.02 Analyze the relationship between global energy transfer and climate. SC.CM.ES.02.01 Describe the effect of	Atmosphere and Climate Atmosphere and	Heating the Atmosphere The Greenhouse Effect Heat and Energy Heating the Atmosphere

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SC.CM.ES Earth and Space Science	Earth.	Earth.	SC.CM.ES.02 Analyze the relationship between global energy transfer and climate.	Atmosphere and Climate	Heating the Atmosphere
					The Greenhouse Effect
					Heat and Energy
			SC.CM.ES.02.01 Describe the effect of various gases in the atmosphere on the amount of energy retained by the Earth system.	Atmosphere and Climate	Heating the Atmosphere
					The Greenhouse Effect
					Heat and Energy
			SC.CM.ES.02.02 Describe how solar radiation and the amount that reaches Earth is affected by stratospheric ozone.	Atmosphere and Climate	Heating the Atmosphere
					The Greenhouse Effect
					Heat and Energy
			SC.CM.ES.02.03 Describe how differential heating of the Earth's surface, atmosphere, and oceans produces wind and ocean currents.	Astronomy	Structure of the Atmosphere
					Heating the Atmosphere
			SC.CM.ES.03 Analyze evidence of ongoing evolution of the Earth system.	World of Weather	The Earth, Sun, and Moon
	Wind				
SC.CM.ES.03.01 Describe methods of determining ages of rocks and fossils.		Weather and Forecasting			
SC.CM.ES.03.02 Use rock sequences and fossil evidence to determine geologic history.	Weathering, Erosion, and Deposition	All Sections			
	Geologic Time	All Sections			
SC.CM.ES.03.03 Describe and analyze theories of Earth's origin and early history using scientific evidence.	Geologic Time	All Sections			
	Geologic Time Astronomy	All Sections Big Bang Theory			

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			SC.CM.ES.03.04 Describe how earthquakes, volcanic eruptions, mountain building, and continental movements result from slow plate motions.	Plate Tectonics, Volcanoes, and Earthquakes	Plate Tectonics
			SC.CM.ES.03.05 Describe how the evolution of life caused dramatic changes in the composition on the Earth's atmosphere, which did not originally contain oxygen.	Atmosphere and Climate	Structure of Atmosphere
			SC.CM.ES.03.06 Identify how volcanic eruptions and impacts of huge rocks from space can cause widespread effects on climate.	Plate Tectonics, Volcanoes, and Earthquakes	Origins of the Earth's Atmosphere
			SC.CM.ES.03.06 Identify how volcanic eruptions and impacts of huge rocks from space can cause widespread effects on climate.	Plate Tectonics, Volcanoes, and Earthquakes	Volcanism
SC.CM.ES Earth and Space Science	Understand the Earth's place in the solar system and the universe.	Explain relationships among the Earth, sun, moon, and the solar system.	SC.CM.ES.04 Explain how mass and distance affect the interaction between Earth and other objects in space.		
			SC.CM.ES.04.01 Recognize that the sun's gravitational pull holds the Earth and other planets in their orbits, just as the planets' gravitational pull keeps their moons in orbit around them.	Astronomy	Earth, Sun, and Moon
			SC.CM.ES.04.02 Explain that the force of gravity between Earth and other objects in space depends only upon their masses and the distances between them.		
SC.CM.ES Earth and Space Science	Describe natural objects, events, and processes outside the Earth, both past and present.	At this time there are no Standards associated with this CCG			