

Science -- Benchmarks for Earth Science 9th Grade

The following benchmarks are to be taught by all Earth Science teachers in the Coloma Community School District. Required Assessments are listed. All Physical Science teachers will assess all students using the format and scoring guides (rubrics) specified in the assessment descriptions.

Theme	Standard	Benchmark	Assessment Required*
Geosphere	V.1.1. All students will describe and explain how the earth's features change over time.	Explain the surface features of the Great Lakes Region using Ice Age Theory	How do we make things we use everyday? (SCI.V.1.3) page 3 How does water quality change as a stream flows from its headwaters through its watershed? (SCI.V.2.2) page 3 How do horizontal motions of the air vary & contribute to the types of weather? (SCI.V.3.2) page 3
	V.1.2 “	Use the plate tectonics theory to explain features of the earth's surface and geological phenomena and describe evidence for the plate tectonics theory.	
	V.1.4. All students will analyze effects of technology on the earth's surface and resources.	Evaluate alternative long-range plans for resource use and by-producta disposal in terms of environmental and economic impact.	
Hydrosphere	V.2.1 All students will describe how water moves.	Identify and describe regional watersheds.	How does water quality change as a stream flows from its headwaters through its watershed? (SCI.V.2.2) page 3
	V.2.2 “	Describe how human activities affect the quality of water in the hydrosphere.	
Atmosphere and Weather	V.3.1. Students will investigate and describe what makes up weather and how it changes from day to day, from season to season and over long periods of time.	Explain how interactions of the atmosphere, hydrosphere, and geosphere create climates and how climates change over time.	How do horizontal motions of the air vary & contribute to the types of weather? (SCI.V.3.2) page 3
	V.3.2. All students will explain what causes different kinds of weather.	Describe patterns of air movement in the atmosphere and how they affect weather conditions.	
	V.3.3. All students will analyze the relationships between human activities and the atmosphere.	Explain general weather patterns and predict storms.	
	V.3.4. All students will explain what causes different kinds of weather.	Explain the impact of human activities on the atmosphere and explain ways that individuals and society can reduce pollution.	
Solar System and Galaxy and Universe	V.4.1. All students will compare and contrast our planet and sun to other planets and star systems.	Compare our sun to other stars.	How do we study distant objects such as our moon, other planets, the
	V.4.2. All students will describe and explain how objects in the solar system move.	Describe the position and motion of our solar system in our galaxy and the overall scale, structure and age of the universe.	

	V.4.3. All students will explain scientific theories as to the origin of the solar system.	Explain how stars and planetary systems form and how stars produce energy.	sun and other elements in the universe? (SCI.V.4.4) page 3
	V.4.4. All students will explain how we learn about the universe.	Explain how technology and scientific inquiry have helped us learn about the universe.	