



Alignment Document
State of Mississippi and Aventa Learning Earth Science

Earth Science
2005-2007 Benchmark Blueprint

Standards	Benchmarks	Unit Name	Course Topic Description
ES.1 Describe the elements and compounds related to the composition of the Earth's crust.	ES.1.a List elements in the Earth's crust and their percentages by mass.		
	ES.1.b Compare the elements in the Earth's crust to the elements in the atmosphere and oceans.		
ES.2 Characterize the different types of mineral deposits.	ES.2.a Research the six common minerals.	Minerals, Rocks and the rock cycle	Identifying Minerals
ES.3 Describe the basic types of rocks and how they are formed.	ES.3.a List the three basic types of rocks and the sources of their production.	Minerals, Rocks and the rock cycle	Minerals, Rocks and the rock cycle
ES.4 Explain the physical and chemical processes of weathering.	ES.4.a Research the causes of physical (mechanical) and chemical weathering.	Weathering and Erosion	Physical Weathering, Chemical Weathering
	ES.4.b Analyze weathering as a type of erosion.	Weathering and Erosion	Physical Weathering
	ES.4.c Research the effects of physical and chemical weathering.	Weathering and Erosion	Physical Weathering, Chemical Weathering
ES.5 Describe the processes involved in shaping the internal and external features of the Earth.	ES.5.a Research the external processes that shape the Earth's features.	Weathering and Erosion	Weathering and Erosion
	ES.5.b Define the internal processes that shape the Earth's features.	Planet Earth	Earth's Interrelated Subsystems
ES.6 Illustrate the geological timetable.	ES.6.a Research the origins of the Earth.	Geologic Time	Geological Time Scale
	ES.6.b Research the scientists responsible for the theories of Earth's origin.	Geologic Time	Relative Time Scale
	ES.6.c Investigate layering as a process of determining the Earth's origin.	Geologic Time	Relative Time Scale
ES.7 Explain how the oceans affect other	ES.7.a Determine how ocean currents affect		

processes on Earth.	climate.		
	ES.7.b Research ocean flora and fauna and their place in the life forms of earth.		
ES.8 Describe the composition of the atmosphere.	ES.8.a Investigate the different layers of the atmosphere.	Atmosphere and Climate	Structure of the Atmosphere
	ES.8.b Research the Greenhouse Effect as it relates to the atmosphere.	Atmosphere and Climate	The Greenhouse Effect
ES.9 Describe the processes involved in weather and climate.	ES.9.a Compare and contrast the terms weather and climate.	World of Weather	Introduction
	ES.9.b Research the circulation of the atmosphere.	World of Weather	Wind
	ES.9.c Explore the different climatic zones.		
	ES.9.d Determine the causes of the change of seasons.	Astronomy	The Earth, Moon and Sun
ES.10 Describe the process of the water cycle.	ES.10.a Explore the water cycle's environmental movement.	Planet Earth	The Water Cycle
	ES.10.b Observe the environmental process of the water cycle.	Planet Earth	The Water Cycle
ES.11 Describe the structure and gravitational interaction of our planetary system.	ES.11.a Investigate the sizes and spacing of the planets in our solar system.	Astronomy	The Solar System
	ES.11.b Define gravity and calculate gravitational pull.	Astronomy	The Earth, Moon and Sun
	ES.11.c Determine the relationship between the moon's pull of gravity and the Earth's tides.	Astronomy	The Earth, Moon and Sun
ES.12 Explain the orderly and predictable motion of celestial bodies.	ES.12.a Investigate comets.		
	ES.12.b Explore the concept of red and blue shift.		
ES.13 Demonstrate the proper use of scientific methods and investigative techniques.	ES.13.a Experimentally investigate a problem utilizing the scientific process.		
	ES.13.b Scientifically communicate the results of an experiment.		
	ES.13.c Demonstrate safe and proper use of scientific equipment.		