

Correlation of
Seeds of Science/Roots of Reading[®]
Integrated Science and Literacy Units

with the Alabama
Science Standards for Grade 6

Created November 2011



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- = Touched upon, with a few learning opportunities and/or instruction may be expanded to more fully address this standard.

Alabama Science Standards – 6 th Grade	2 nd - 3 rd Grade				3 rd - 4 th Grade				4 th - 5 th Grade			
	Soil Habitats	Shoreline Science	Designing Mixtures	Gravity & Magnetism	Light Energy	Weather & Water	Variation and Adaptation	Digestion & Body Systems	Planets & Moons	Aquatic Ecosystems	Models of Matter	Chemical Changes
EARTH AND SPACE SCIENCE												
1.) Identify global patterns of atmospheric movement, including El Niño, the Gulf Stream, the jet stream, the Coriolis effect, and global winds that influence local weather.												
• Predicting local weather and weather patterns Examples: cold and warm fronts, high and low pressure areas												
• Describing the function of instruments and technology used to investigate Earth's weather, including barometers, thermometers, wind socks, weather vanes, satellites, radar, weather balloons, and rain gauges						• • •						
• Using lines of latitude and longitude to locate areas of specific weather events												
• Interpreting weather data through observations collected over time Example: calculating annual precipitation and average temperature						• • •						
2.) Describe factors that cause changes to Earth's surface over time. Examples: earthquakes, volcanoes, weathering, erosion, glacial erosion or scouring, deposition, water flow, tornadoes,			• •									

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hurricanes, farming and conservation, mining and reclamation, deforestation and reforestation, waste disposal, global climate changes, greenhouse gases												
<ul style="list-style-type: none"> Comparing constructive and destructive natural processes and their effects on land formations Examples: - constructive-volcanic and mountain-building processes; - destructive-erosion by wind, water, and ice						●						
<ul style="list-style-type: none"> Distinguishing rock strata by geologic composition Examples: predicting relative age of strata by fossil depth, predicting occurrence of natural events by rock composition in a particular strata												
3.) Describe water and carbon biogeochemical cycles and their effects on Earth.						●●						
4.) Explain the plate tectonic theory. Example: using terminology such as continental drift, seafloor spreading, lava, magma, eruption, epicenter, focus, seismic wave, and subduction zone												
<ul style="list-style-type: none"> Describing types of volcanoes and faults 												
<ul style="list-style-type: none"> Determining energy release through seismographic data Example: using data from the Mercalli scale and the Richter scale												
5.) Describe layers of the oceanic hydrosphere, including the pelagic zone, benthic zone, abyssal zone, and intertidal zone.												

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6.) Describe regions of the oceanic lithosphere, including the continental shelf, continental slope, and abyssal plain.												
7.) Describe Earth's biomes. Examples: aquatic biomes, grasslands, deserts, chaparrals, taigas, tundras										●		
• Identifying geographic factors that cause diversity in flora and fauna, including elevation, location, and climate.												
8.) Describe how Earth's rotation, Earth's axial tilt, and distance from the equator cause variations in the heating and cooling of various locations on Earth.												
9.) Identify the moon's phases.									● ● ●			
• Describing lunar and solar eclipses												
• Relating effects of the moon's positions on oceanic tides												
10.) Describe components of the universe and their relationships to each other, including stars, planets and their moons, solar systems, and galaxies.									● ● ●			
• Identifying the impact of space exploration on innovations in technology Examples: MRI, microwave, satellite imagery, GPS												
• Mapping seasonal changes in locations of constellations in the night sky												
• Describing the life cycle of a star Example: H-R diagram												

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11.) Describe units used to measure distance in space, including astronomical units and light years.												

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