

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

Soil Habitats
Shoreline Science
Designing Mixtures
Gravity and Magnetism
Light Energy
Weather and Water
Variation and Adaptation
Digestion and Body Systems
Planets & Moons
Aquatic Ecosystems
Models of Matter
Chemical Changes

with the State of Georgia
Georgia Benchmarks for Science Literacy
for Grades 2-5
Created June 2010



Seeds of Science/Roots of Reading[®] was created with partial support from the National Science Foundation under grant numbers ESI-0242733 and ESI-0628272. The program was created by a team at the Lawrence Hall of Science at the University of California, Berkeley.

Georgia Benchmarks	<i>Seeds/Roots units that address these Benchmarks 2nd-3rd grade</i>	<i>Seeds/Roots units that address these Benchmarks 3rd-4th grade</i>	<i>Seeds/Roots units that address these Benchmarks 4th-5th grade</i>
The Universe			<i>Planets & Moons</i>
The Earth	<i>Shoreline Science Soil Habitats</i>	<i>Weather & Water</i>	
The Structure of Matter	<i>Designing Mixtures</i>		<i>Models of Matter Chemical Changes</i>
Energy Transformation		<i>Light Energy</i>	
Motion and Forces	<i>Gravity & Magnetism</i>	<i>Light Energy</i>	<i>Planets & Moons</i>
Diversity of Life	<i>Shoreline Science Soil Habitats</i>	<i>Variation & Adaptation</i>	
Heredity		<i>Variation & Adaptation</i>	
Cells		<i>Variation & Adaptation</i>	
Interdependence of Life	<i>Shoreline Science Soil Habitats</i>		<i>Aquatic Ecosystems</i>
Flow of Matter and Energy	<i>Soil Habitats</i>		<i>Aquatic Ecosystems</i>

Georgia Science Standards—2 nd Grade	2 nd –3 rd Grade Seeds/Roots Units			
	<i>Soil Habitats</i>	<i>Shoreline Science</i>	<i>Designing Mixtures</i>	<i>Gravity & Magnetism</i>
Grade Level Theme: Change	•••	••	•••	•
Habits of Mind				
S2CS1. Curiosity, honesty, openness and skepticism	•••	•••	•••	•••
S2CS2. Computation and estimation skills necessary for analyzing data	••	•	••	•
S2CS3. Use tools and instruments in investigations	••	••	••	••
S2CS4. Use ideas of system, model, change, and scale	••	••	•	•
S2CS4. Communicate ideas and activities clearly	•••	•••	•••	•••
The Nature of Science				
S2CS6. Familiar with character of scientific knowledge	•••	•••	•••	•••
S2CS7. Important features of the process of scientific inquiry	•••	••	•••	••
Earth Science				
S2E1. Stars have different sizes, brightness, and patterns				
S2E2. Position of sun and moon to show patterns throughout the year				
S2E3. Observe and record changes in surroundings and infer the causes				
Physical Science				
S2P1. Properties of matter and changes that occur in objects				•••
S2P2. Identify sources of energy and how the energy is used				
S2P3. Demonstrate changes in speed and direction using pushes and pulls				•••
Life Science				
S2L1. Life cycles of different living organisms	•			

- ● ● =Major focus on concept, skill, or understanding, explicitly taught
- ● =Moderate focus on concept, skill, or understanding with explicit teaching or practice
- =Peripheral focus on concept, skill, or understanding with practice

Georgia Science Standards—3 rd Grade	2 nd –3 rd Grade <i>Seeds/Roots Units</i>				3 rd –4 th Grade <i>Seeds/Roots Units</i>			
	<i>Soil Habitats</i>	<i>Shoreline Science</i>	<i>Designing Mixtures</i>	<i>Gravity & Magnetism</i>	<i>Light Energy</i>	<i>Weather & Water</i>	<i>Variation & Adaptation</i>	<i>Digestion & Body Systems</i>
Grade Level Theme: Form and Function	••	••					•••	•••
Habits of Mind								
S3CS1. Curiosity, honesty, openness and skepticism	•••	•••	•••	•••	•••	•••	•••	•••
S3CS2. Computation and estimation skills necessary for analyzing data	••	•	••	•	••	•••	••	•
S3CS3. Use tools and instruments in investigations	••	••	••	••	•••	•••	•	•
S3CS4. Use ideas of system, model, change, and scale	••	••	•	•	•	••	••	••
S3CS5. Communicate ideas and activities clearly	•••	•••	•••	•••	•••	•••	•••	•••
S3CS6. Question scientific claims and arguments effectively	•••	•••	•••	•••	•••	•••	•••	•••
The Nature of Science								
S3CS7. Familiar with character of scientific knowledge	•••	•••	•••	•••	•••	•••	•••	•••
S3CS8. Important features of the process of scientific inquiry	•••	••	•••	••	•••	•••	•••	•••
Earth Science								
S3E1. Attributes of rocks and soils	••	••						
S3E2. How fossils are formed							••	
Physical Science								
S3P1. How heat is produced, effects of heating and cooling, temperature/heat						••		
S3P2. Magnets and how they affect other magnets and common materials				•••				
Life Science								
S3L1. Habitats and the dependence of organisms on their habitat	•••	•••						
S3L2. Effects of pollution and humans on the environment		•••						

- ● ● =Major focus on concept, skill, or understanding, explicitly taught
- ● =Moderate focus on concept, skill, or understanding with explicit teaching or practice
- =Peripheral focus on concept, skill, or understanding with practice

Georgia Science Standards—4 th Grade	3 rd –4 th Grade <i>Seeds/Roots Units</i>				4 th –5 th Grade <i>Seeds/Roots Units</i>			
	<i>Light Energy</i>	<i>Weather & Water</i>	<i>Variation & Adaptation</i>	<i>Digestion & Body Systems</i>	<i>Planets and Moons</i>	<i>Aquatic Ecosystems</i>	<i>Models of Matter</i>	<i>Chemical Changes</i>
Grade Level Theme: Models	•	•••		•••	•••	•	•••	•
Habits of Mind								
S4CS1. Curiosity, honesty, openness and skepticism	•••	•••	•••	•••	•••	•••	•••	•••
S4CS2. Computation and estimation skills necessary for analyzing data	••	•••	••	•	•	•••	•	•••
S4CS3. Use tools and instruments in investigations	•••	•••	•	•	•	•••	•	••
S4CS4. Use ideas of system, model, change, and scale	•	••	••	••	•••	••	••	••
S4CS5. Communicate ideas and activities clearly	•••	•••	•••	•••	•••	•••	•••	•••
S4CS6. Question scientific claims and arguments effectively	•••	•••	•••	•••	•••	•••	•••	•••
The Nature of Science								
S4CS7. Familiar with character of scientific knowledge	•••	•••	•••	•••	•••	•••	•••	•••
S4CS8. Important features of the process of scientific inquiry	•••	•••	•••	•••	•••	•••	•••	•••
Earth Science								
S4E1. Attributes of stars, star patterns, planets					••			
S4E2. Position and motion of the Earth in the solar system and moon phases					•••			
S4E3. States of water, water cycle, and weather		•••						
S4E4. Analyze weather data and collect weather data		•••						
Physical Science								
S4P1. Nature of light	•••							
S4P2. Nature of sound								
S4P3. Application of force & resultant change of position and motion of object					••			
Life Science								
S4L1. Role of organisms and flow of energy in an ecosystem						•••		
S4L2. Factors that affect the survival or extinction of organism				•••				

- ● ● =Major focus on concept, skill, or understanding, explicitly taught
- ● =Moderate focus on concept, skill, or understanding with explicit teaching or practice
- =Peripheral focus on concept, skill, or understanding with practice

Georgia Science Standards—5 th Grade	4 th -5 th Grade Seeds/Roots Units			
	<i>Planets and Moons</i>	<i>Aquatic Ecosystems</i>	<i>Models of Matter</i>	<i>Chemical Changes</i>
Grade Level Theme: Evidence	•••	•••	•••	•••
Habits of Mind				
S5CS1. Curiosity, honesty, openness and skepticism	•••	•••	•••	•••
S5CS2. Computation and estimation skills necessary for analyzing data	•	•••	•	•••
S5CS3. Use tools and instruments in investigations	•	•••	•	••
S5CS4. Use ideas of system, model, change, and scale	•••	••	••	••
S5CS5. Communicate ideas and activities clearly	•••	•••	•••	•••
S5CS6. Question scientific claims and arguments effectively	•••	•••	•••	•••
The Nature of Science				
S5CS7. Familiar with character of scientific knowledge	•••	•••	•••	•••
S5CS8. Important features of the process of scientific inquiry	•••	•••	•••	•••
Earth Science				
S5E1. Surface features of the Earth caused by constructive and destructive processes				
Physical Science				
S5P1. An object is the sum of its parts				•••
S5P2. Difference between a physical change and a chemical change				••
S5P3. Electricity and Magnetism				
Life Science				
S5L1. Classification of animals				
S5L2. Offspring can resemble parents in inherited and learned behaviors				
S5L3. Structure of a cell				
S4L4. Relationship of microorganisms to larger organisms		••		

- ● ● =Major focus on concept, skill, or understanding, explicitly taught
- ● =Moderate focus on concept, skill, or understanding with explicit teaching or practice
- =Peripheral focus on concept, skill, or understanding with practice