


## 5th Grade - Elementary Science Bundle # 10

Title		Suggested Dates
Interdependence (2 weeks) & Review (1 week) [review continues in Bundle 11]		3/22/10 – 4/16/10 (19 days)

Big Idea/Enduring Understanding	Guiding Questions
<p>There are relationships, systems, and cycles within environments that are required for the environment to function and organisms to survive.</p> <p>Environments consist of both living and non-living elements.</p> <p>Environments are both positively and negatively affected by changes caused by organisms, including humans.</p>	<p>What are the roles of consumers and decomposers within an environment?</p> <p>Why is it important to understand the environment?</p> <p>What can be done to ensure minimal negative impact on the environment?</p> <p>What happens when one small portion of the environment is removed or affected?</p>

The resources included here provide teaching examples and/or meaningful learning experiences to address the District Curriculum. In order to address the TEKS to the proper depth and complexity, teachers are encouraged to use resources to the degree that they are congruent with the TEKS and research-based best practices. Teaching using only the suggested resources does not guarantee student mastery of all standards. Teachers must use professional judgment to select among these and/or other resources to teach the district curriculum.

Knowledge & Skills with Student Expectations	District Specificity/Examples	Suggested Resources (See note above)
<b>This Bundle Will Be Updated</b>		
<p>NEW TEKS <b>5.9 Organisms and Environments. The student knows that there are relationships, systems, and cycles within environments.</b></p> <p>5.9a observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving elements</p>		
<p>NEW TEKS <b>5.9 Organisms and Environments. The student knows that there are relationships, systems, and cycles within environments.</b></p> <p>5.9b describe how the flow of energy derived from the Sun, used by producers to create their own food, is transferred through a food chain and food web to consumers and decomposers</p>		
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<p><b>cycles within environments.</b></p> <p>5.9c predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways</p>		
<p>CURRENT TEKS  <b>5.6 Science concepts. The student knows that some change occurs in cycles.</b></p> <p>5.6b identify the significance of the water, carbon, and nitrogen cycles</p> <p>NEW TEKS  <b>5.9 Organisms and Environments. The student knows that there are relationships, systems, and cycles within environments.</b></p> <p>5.9d identify the significance of the carbon dioxide-oxygen cycle to the survival of plants and animals</p>		
<p>CURRENT TEKS  <b>5.1 Scientific Processes. The student conducts field and laboratory investigations following home and school safety procedures and environmentally appropriate and ethical practices.</b></p> <p>5.1a demonstrate safe practices during field and laboratory investigations</p> <p>5.1b make wise choices in the use and conservation of resources and the disposal or recycling of materials</p> <p>NEW TEKS  <b>5.1 Scientific investigations and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and environmentally appropriate and ethical practices.</b></p> <p>5.1a demonstrate safe practices and the use of safety equipment as described in the Texas Safety</p>		

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<p>Standards during classroom and outdoor investigations</p> <p>5.1b make informed choices in the conservation, disposal, and recycling of materials</p>		
<p><b>CURRENT TEKS</b></p> <p><b>5.2 Scientific processes. The student uses scientific methods during field and laboratory investigations.</b></p> <p>5.2a plan and implement descriptive and simple experimental investigations including asking well-defined questions, formulating testable hypotheses, and selecting and using equipment and technology</p> <p>5.2b collect information by observing and measuring</p> <p>5.2c analyze and interpret information to construct reasonable explanations from direct and indirect evidence</p> <p>5.2d communicate valid conclusions</p> <p>5.2e construct simple graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate information</p> <p><b>NEW TEKS</b></p> <p><b>5.2 Scientific investigations and reasoning. The student uses scientific methods during laboratory and outdoor investigations.</b></p> <p>5.2a describe, plan, and implement simple experimental investigations testing one variable</p> <p>5.2b ask well-defined questions, formulate testable hypothesis, and select and use appropriate equipment and technology</p> <p>5.2c collect information by detailed observation and accurate measuring</p> <p>5.2d analyze and interpret information to construct</p>		

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<p>reasonable explanations from direct (observable) and indirect (inferred) evidence</p> <p>5.2e demonstrate that repeated investigations may increase the reliability of results</p> <p>5.2f communicate valid conclusions in both written and verbal forms</p> <p>5.2g construct appropriate simple graphs, tables, maps, and charts using technology, including computers, to organize, examine, and evaluate information</p>		
<p><b>CURRENT TEKS</b></p> <p><b>5.3 Scientific Processes. The student uses critical thinking and scientific problem solving to make informed decisions.</b></p> <p>5.3a analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information</p> <p>5.3b draw inferences based on information related to promotional materials for products and services</p> <p>5.3c represent the natural world using models and identify their limitations</p> <p>5.3d evaluate the impact of research on scientific thought, society, and the environment</p> <p>5.3e connect Grade 5 science concepts with the history of science and contributions of scientists</p> <p><b>NEW TEKS</b></p> <p><b>5.3 Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions.</b></p> <p>5.3a in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides</p>		

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<p>of scientific evidence of those scientific explanations so as to encourage critical thinking by the student</p> <p>5.3b evaluate the accuracy of the information related to promotional materials for products and services such as nutritional labels</p> <p>5.3c draw or develop a model that represents how something works or looks that cannot be seen such as how a soda dispensing machine works</p> <p>5.3d connect grade level appropriate science concepts with the history of science, science careers, and contributions of scientists</p>		
<p>CURRENT TEKS</p> <p><b>5.4 Scientific Processes. The student knows how to use a variety of tools and methods to conduct science inquiry.</b></p> <p>5.4a collect and analyze information using tools including calculators, microscopes, cameras, sound recorders, computers, and lenses, rulers, thermometers, compasses, balances, hot plates, meter sticks, timing devices, magnets, collecting nets, and safety goggles</p> <p>5.4b demonstrate that repeated investigations may increase the reliability of results</p> <p>NEW TEKS</p> <p><b>5.4 Scientific investigation and reasoning. The student knows how to use a variety of tools and methods to conduct science inquiry.</b></p> <p>5.4a collect, record, and analyze information using tools including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, pan balances, triple beam balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices including clocks and stopwatches, and materials to support the observation of habitats of organisms such as</p>		

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terrariums and aquariums 5.4b use safety equipment including safety goggles and gloves		
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