

# **Grade 3 Science**

## **The Natural World Part 1**

Grade 3 Science  
Possible Scope and Sequence


1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester
<b>Exploring Matter and Energy Part 1</b> <ul style="list-style-type: none"> <li>Physical properties of matter</li> <li>Physical states of matter</li> <li>Systems in matter</li> </ul>	<b>The Natural World Part 2</b> <ul style="list-style-type: none"> <li>Solar system</li> <li>Characteristics of the Sun</li> </ul>
<b>Exploring Matter and Energy Part 2</b> <ul style="list-style-type: none"> <li>Forces</li> <li>Forces that shape the Earth</li> <li>Energy systems</li> </ul>	<b>Living Systems Part 1</b> <ul style="list-style-type: none"> <li>Habitats</li> <li>Competition</li> <li>Survival</li> <li>Modifying the environment</li> <li>Systems in the environment</li> </ul>
<b>The Natural World Part 1</b> <ul style="list-style-type: none"> <li>Earth materials</li> <li>Properties of soil</li> <li>Earth systems</li> </ul>	<b>Living Systems Part 2</b> <ul style="list-style-type: none"> <li>Adaptations of species for survival</li> <li>Adaptations of individuals for survival</li> <li>Traits of plants</li> <li>Traits of animals</li> <li>Systems of inheritance and survival</li> </ul>

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**Scientific Processes**


Knowledge and Skills	Student Expectations
3.1 The student conducts classroom and field investigations following home and school safety procedures. The student is expected to:	<ul style="list-style-type: none"> <li>A. demonstrate safe practices during classroom and field investigations; and</li> <li>B. make wise choices in the use and conservation of resources and the disposal or recycling of materials</li> </ul>
3.2 The student uses scientific inquiry methods during field and laboratory investigations. The student is expected to:	<ul style="list-style-type: none"> <li>A. plan and implement descriptive investigations including asking well-defined questions, formulating testable hypotheses, and selecting and using equipment and technology</li> <li>B. collect information by observing and measuring</li> <li>C. analyze and interpret information to construct reasonable explanations from direct and indirect evidence</li> <li>D. communicate valid conclusions</li> <li>E. construct simple graphs, tables, maps, and charts to organize, examine and evaluate information.</li> </ul>
3.3 The student knows that information, critical thinking, and scientific problem solving are used in making decisions. The student is expected to:	<ul style="list-style-type: none"> <li>A. analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information</li> <li>B. draw inferences based on information related to promotional materials for products and services</li> <li>C. represent the natural world using models and identify their limitations</li> <li>D. evaluate the impact of research on scientific thought, society, and the environment</li> <li>E. connect Grade 3 science concepts with the history of science and contributions of scientists.</li> </ul>

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**Scientific Processes**


3.4 The student knows how to use a variety of tools and methods to conduct science inquiry. The student is expected to:	<ul style="list-style-type: none"><li>A. collect and analyze information using tools including calculators, microscopes, cameras, safety goggles, sound recorders, clocks, computers, thermometers, hand lenses, meter sticks, rulers, balances, magnets, and compasses; and</li><li>B. demonstrate that repeated investigations may increase the reliability of results.</li></ul>
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**The *National Science Education Standards* encourage teachers to place less emphasis on “separating science knowledge from science process” and instead promote the teaching of “process skills in context”. Therefore, all of the scientific processes from the Texas Essential Knowledge and Skills are embedded throughout the year and are indicated by the following icon: **

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Possible Scope and Sequence  
**The Natural World Part 1 (30 days @ 45 minutes per day)**

TEKS	TAKS Obj.	Concepts/Processes/Skills	Assessment Resources	Instructional Resources	Textbook
3.11A Identify and describe the importance of earth materials including rocks, soil, water, and gases of the atmosphere in the local area and classify them as renewable, nonrenewable, or inexhaustible resources	1,4	<b>Earth materials</b> <ul style="list-style-type: none"> <li>▪ Natural resources are materials on Earth that are used by humans and other living things</li> <li>▪ Renewable resources, such as freshwater, plants, animals, soil, and oxygen can be replaced in short amounts of time</li> <li>▪ Sunlight, wind, and tides are inexhaustible resources</li> <li>▪ Nonrenewable resources, such as oil, natural gas, coal, and minerals cannot be replaced in a short amount of time</li> <li>▪  Safety, Inquiry, Critical Thinking, Use of Tools</li> </ul>	<a href="http://www.sciencebenchmarks.org">www.sciencebenchmarks.org</a>	BT1: Star Power p. 3-30  SYS35: More Than Dirt, p. 12-14  TSG5: Objective 4 p.284	

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TEKS	TAKS Obj.	Concepts/Processes/Skills	Assessment Resources	Instructional Resources	Textbook
3.11B Identify and record properties of soils such as color and texture, capacity to retain water, and ability to support the growth of plants	1,4	<b>Properties of soils</b> <ul style="list-style-type: none"> <li>▪ Soil is formed when rock is weathered by wind, water, and temperature changes, and carried to new places by erosion</li> <li>▪ Soil texture is determined by the size of particles in the soil</li> <li>▪ Sand has large particles and does not retain water, while clay soil with tiny particles and does not allow plant roots to grow because it is sticky and packed when wet</li> <li>▪ Soils with humus are rich in nutrients, and support plant life and retain water better than sandy soils</li> <li>▪  Safety, Inquiry, Critical Thinking, Use of Tools</li> </ul>	<a href="http://www.sciencebenchmarks.org">www.sciencebenchmarks.org</a>	SYS35: More Than Dirt, p. 3-16	