

## Second Grade Science Content Standards and Objectives

<b>Standard 1:</b>	Nature of Science	
SC.S.2.1	Students will <ul style="list-style-type: none"> <li>• demonstrate an understanding of the history and nature of science as a human endeavor encompassing the contributions of diverse cultures, scientists, and careers.</li> <li>• demonstrate the abilities and understanding necessary to do scientific inquiry.</li> </ul> demonstrate the ability to think and act as scientists by engaging in active inquiries and investigations, while incorporating hands-on activities.	
<b>Objectives</b>	<b>Students will</b>	<b>PLT Activity and Page</b>
SC.O.2.1.01	interpret science as the human's search for an understanding of the world by asking questions about themselves and their world.	#1 The Shape of Things p. 17 #2 Get in Touch with Trees p. 20 #3 Peppermint Beetle p. 23 #4 Sounds Around p. 26 #6 Picture This! p. 34 #8 The Forest of S.T. Shrew p. 40 #16 Pass The Plants, Please p. 77 #18 Tale of the Sun p. 86 #20 Environmental Exchange Box p. 92 #22 Trees as Habitats p.102 #41 How Plants Grow p.179 #62 To Be a Tree p.269 #76 Tree Cookies p.327 #77 Trees in Trouble p.332 #89 Trees for Many Reasons p.387
SC.O.2.1.02	compare the lives and discoveries of scientists of different cultures and backgrounds.	
SC.O.2.1.03	identify and discuss science careers in the community.	#32 A Forest of Many Uses p.135

SC.O.2.1.04	demonstrate curiosity, initiative and creativity by observing, classifying, comparing and analyzing natural objects in the environment.	#2 Get in Touch with Trees p. 20 #6 Picture This! p. 34 #8 The Forest Of S.T. Shrew p. 40 #13 We All Need Trees p. 65 #20 Environmental Exchange Box p. 92 #21 Adopt A Tree p. 97 #24 Nature's Recyclers p.108 #25 Birds and Worms p.111 #41 How Plants Grow p.179 #43 Have Seeds, Will Travel p.185 #46 Schoolyard Safari p.197 #47 Are Vacant Lots Vacant? p.200 #61 The Closer You Look p.263 #62 To Be a Tree p.269 #68 Name That Tree p.288 #70 Soil Stories p.297 #76 Tree Cookies p.327 #89 Trees for Many Reasons p.387
SC.O.2.1.05	manipulate scientific instruments and everyday materials to investigate the natural world (e.g., hand lens, balance, thermometer, metric ruler, magnets, weather instruments, or calculators).	#20 Environmental Exchange Box p. 92 #22 Trees as Habitats p.102 #70 Soil Stories p.297 #77 Trees in Trouble p.332
SC.O.2.1.06	measure the length and width of various objects using standard and non-standard units (e.g., metric ruler, paper clips, or counting bears).	
SC.O.2.1.07	use safe and proper techniques for handling, manipulating, and caring for science materials (e.g., follow safety rules, maintain a clean work area, or treat living organisms humanely).	#24 Nature's Recyclers p.108 #31 Plant a Tree p.132 #46 Schoolyard Safari p.197 #51 Make Your Own Paper p.224 #70. Soil Stories p.297 #76 Tree Cookies p.327

SC.O.2.1.08	design and conduct simple investigations; observe, collect and record information using a variety of classification systems; describe trends of data; and make predictions based on that data (e.g., seasonal changes and plants or temperature and weather).	#2 Get in Touch with Trees p. 20 #4 Sounds Around p. 26 #6 Picture This! p. 34 #13 We All Need Trees p. 65 #20 Environmental Exchange Box p. 92 #21 Adopt A Tree p. 97 #24 Nature's Recyclers p.108 #39 Energy Sleuths p.167 #41 How Plants Grow p.179 #46 Schoolyard Safari p.197 #47 Are Vacant Lots Vacant? p.200 #48 Field, Forest, and Stream p.203 #76 Tree Cookies p.327
<b>Standard 2:</b>	<b>Content of Science</b>	
SC.S.2.2	Students will <ul style="list-style-type: none"> <li>• demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives.</li> <li>• demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences.</li> <li>• apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences.</li> </ul>	
<b>Objectives</b>	<b>Students will</b>	<b>PLT Activity and Page</b>
SC.O.2.2.01	identify that plants and animals have different structures.	#6 Picture This! p. 34 #61 The Closer You Look p.263 #62 To Be a Tree p.269 #64 Looking at Leaves p.273

SC.O.2.2.02	identify the structures of living things including their systems, and explain their functions (e.g., wings for flying, fins for swimming, or roots for support and obtaining water).	#3 Peppermint Beetle p. 23 #4 Sounds Around p. 26 #6 Picture This! p. 34 #21 Adopt A Tree p. 97 #24 Nature's Recyclers p.108 #41 How Plants Grow p.179 #43 Have Seeds, Will Travel p.185 #61 The Closer You Look p.263 #62 To Be a Tree p.269 #63 Tree Factory p.269 #65 Bursting Buds p.277 #68 Name That Tree p.288
SC.O.2.2.03	sequence pictures of events to illustrate the changes in the life cycle of plants and animals.	#65 Bursting Buds p.277 #79 Tree Lifecycle p.341
SC.O.2.2.04	relate observations of the butterfly's life cycle to student's own growth and change.	
SC.O.2.2.05	compare and contrast simple models of different kinds of habitats, including a forest and a stream.	#6 Picture This! p. 34 #27 Every Tree for Itself p.117 #46 Schoolyard Safari p.197 #47 Are Vacant Lots Vacant? p.200 #48 Field, Forest, and Stream p.203
SC.O.2.2.06	identify materials as a solid, a liquid or a gas and recognize that matter takes up space, and can change from one state to another.	
SC.O.2.2.07	demonstrate that a magnet can attract or repel objects.	
SC.O.2.2.08	identify which materials and colors conduct heat better than others.	
SC.O.2.2.09	demonstrate that a shadow is cast when an object blocks light.	
SC.O.2.2.10	compare the effects of force on the motion of an object.	
SC.O.2.2.11	explore how sound can change in pitch and volume.	#4 Sounds Around p. 26
SC.O.2.2.12	identify and examine changes in the earth's surface (e.g., weathering, or erosion).	#36 Pollution Search p.153 #48 Field, Forest, and Stream p.203

SC.O.2.2.13	identify the effects of wind movement.	#39 Energy Sleuths p.167 #43 Have Seeds, Will Travel p.185 #48 Field, Forest, and Stream p.203 #53 On the Move p.232
SC.O.2.2.14	observe and describe different types of precipitation.	
SC.O.2.2.15	describe daily and seasonal weather changes.	#78 Signs of Fall p.337
SC.O.2.2.16	explain how the rotation of the Earth on its axis causes day and night.	
SC.O.2.2.17	understand that the moon has phases.	
SC.O.2.2.18	describe how fossils are formed, and match a fossil, or a picture of a fossil, to its original organism.	
<b>Standard 3:</b>	<b>Application of Science</b>	
SC.S.2.3	<p>Students will</p> <ul style="list-style-type: none"> <li>• identify how the parts of a system interact.</li> <li>• recognize and use models as representations of real things.</li> <li>• observe that changes occur gradually, repetitively, or randomly within the environment.</li> <li>• recognize that common objects and events incorporate science to solve human problems and enhance the quality of life.</li> </ul> <p>demonstrate the ability to listen to, be tolerant of, and evaluate the impact of different points of view on health, population, resources and environmental practices while working in collaborative groups.</p>	
<b>Objectives</b>	<b>Students will</b>	<b>PLT Activity and Page</b>

SC.O.2.3.01	identify parts of systems and identify how they interact with one another.	#4 Sounds Around p. 26 #6 Picture This! p. 34 #8 The Forest Of S.T. Shrew p. 40 #21 Adopt A Tree p. 97 #22 Trees as Habitats p.102 #24 Nature's Recyclers p.108 #27 Every Tree for Itself p.117 #30 Three Cheers for Trees p.130 #41 How Plants Grow p.179 #43 Have Seeds, Will Travel p.185 #62 To Be a Tree p.269 #63 Tree Factory p.269 #77 Trees in Trouble p.332 #81 Living with Fire p.350
SC.O.2.3.02	use models as representations of real things.	#6 Picture This! p. 34 #62 To Be a Tree p.269 #81 Living with Fire p.350
SC.O.2.3.03	observe that changes occur gradually, repetitively, or randomly within the environment.	#21 Adopt A Tree p. 97 #27 Every Tree for Itself p.117 #48 Field, Forest, and Stream p.203 #78 Signs of Fall p.337
SC.O.2.3.04	recognize that common objects and events incorporate science (e.g., CD players, Velcro, or weather) to solve human problems and enhance the quality of life.	#15 A Few Of My Favorite Things p. 75 #30 Three Cheers for Trees p. 130 #31 Plant a Tree p.132 #32 A Forest of Many Uses p.135 #39 Energy Sleuths p.167 #47 Are Vacant Lots Vacant? p.200 #51 Make Your Own Paper p.224 #53 On the Move p.232
SC.O.2.3.05	listen to and be tolerant of different viewpoints while working in collaborative groups.	#13 We All Need Trees p. 65 #51 Make Your Own Paper p.224 #87 Earth Manners p.378

SC.O.2.3.06	develop respect and responsibility for the environment by engaging in conservation practices (e.g., recycling, trash clean-up, or power consumption reduction).	#30 Three Cheers for Trees p.130 #31 Plant a Tree p.132 #36 Pollution Search p.153 #39 Energy Sleuths p.167 #51 Make Your Own Paper p.224 #87 Earth Manners p.378
-------------	---	--