

# 3<sup>rd</sup> Grade Science Curriculum

Unit	Content	Skill	Assessment	Standard
<p style="text-align: center;"><b>Physical Science-</b></p> <p style="text-align: center;">Investigating Matter and Energy</p>	<p style="text-align: center;"><b>11. Properties of Matter:</b></p> <p style="text-align: center;">What is matter?</p> <p style="text-align: center;">What are states of matter?</p> <p style="text-align: center;">How does matter change?</p>	<ul style="list-style-type: none"> <li>• Measure the volume of a liquid.</li> <li>• Describe physical properties of matter.</li> <li>• Explain why objects float or sink.</li> <li>• Observe a change of state.</li> <li>• Identify properties of solids, liquids, and gases.</li> <li>• Describe evaporation and condensation.</li> <li>• Make a mixture and a solution.</li> <li>• Describe several types of physical changes.</li> <li>• Explain how a chemical change differs from a physical change.</li> </ul>	<ul style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Tests</li> <li>• Unit Test</li> </ul>	<p style="text-align: center;">11.A.2b 11.A.2d 11.A.2e 12.C.2b</p>
	<p style="text-align: center;"><b>12. Energy</b></p> <p style="text-align: center;">What is energy?</p> <p style="text-align: center;">How can energy be used?</p> <p style="text-align: center;">Why is energy important?</p>	<ul style="list-style-type: none"> <li>• Gather temperature data over time and present it in graph form.</li> <li>• Define <b>energy</b>.</li> <li>• Explain the difference between kinetic energy and potential energy.</li> <li>• Measure the amount of energy transferred from sunlight to objects.</li> <li>• Identify the sources of energy people use for different purposes.</li> <li>• Define <b>temperature</b>.</li> <li>• Investigate the power of wind to move objects.</li> <li>• Describe ways people can conserve energy.</li> <li>• Explain the difference between renewable and nonrenewable resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Tests</li> <li>• Unit Test</li> </ul>	<p style="text-align: center;">11.A.2a 11.A.2b 11.A.2e 11.B.2a 11.B.2b 11.B.2c 11.B.2d 12.C.2a</p>

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	<p style="text-align: center;"><b>13. Electricity and Magnets</b></p> <p>What is electricity?</p> <p>What are magnets?</p> <p>How are electricity and magnets related?</p>	<ul style="list-style-type: none"> <li>• Describe static electricity.</li> <li>• Know that electricity must move between a complete circuit to operate a device.</li> <li>• Distinguish insulators from conductors.</li> <li>• Recognize types and properties of magnets.</li> <li>• Identify practical uses of magnets in everyday life.</li> <li>• Recognize how magnets can be used to do work.</li> <li>• Describe the properties and uses of electromagnets.</li> <li>• Define <b>generator</b> and explain how one works.</li> </ul>	<ul style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Tests</li> <li>• Unit Test</li> </ul>	<p>11.A.2b 11.A.2e 11.B.2a 11.B.2b 11.B.2c 11.B.2d 11.B.2f 12.C.2a</p>
	<p style="text-align: center;"><b>14. Heat, Light and Sound</b></p> <p>What is heat?</p> <p>What is light?</p> <p>How are light and color related?</p> <p>What is sound?</p>	<ul style="list-style-type: none"> <li>• Demonstrate that when a warm object is in contact with a cool one, the warm object loses heat and the cool one gains heat.</li> <li>• Define <b>heat</b> and <b>temperature</b>.</li> <li>• Compare conductors and insulators.</li> <li>• Investigate the path of light.</li> <li>• Define <b>reflection</b> and <b>refraction</b>.</li> <li>• Understand shadows.</li> <li>• Investigate how white light can be split into colored light.</li> <li>• Describe how objects absorb light to make other colors.</li> <li>• Investigate how a maraca makes sound.</li> <li>• Identify vibrations as the source of sound.</li> <li>• Define <b>loudness</b> and <b>pitch</b>.</li> <li>• Explain how hearing works.</li> </ul>	<ul style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Tests</li> <li>• Unit Test</li> </ul>	<p>11.A.2b 11.A.2c 11.B.2a 11.B.2b 11.B.2c 11.B.2d 12.C.2a</p>

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<p><b>Physical Science-</b></p> <p>Exploring Forces and Motion</p>	<p><b>15. Forces and Motion</b></p> <p>What is motion?</p> <p>What are forces?</p> <p>How do waves move?</p>	<ul style="list-style-type: none"> <li>Investigate different kinds of motion.</li> <li>Identify and describe types of motion.</li> <li>Define <b>speed</b>.</li> <li>Investigate the motion of an object sliding down a ramp.</li> <li>Define <b>force</b>, and describe how forces affect motion.</li> <li>Define <b>weight</b>.</li> <li>Observe the motion of different kinds of waves.</li> <li>Define <b>waves</b> and describe their motion.</li> <li>Identify the parts of a wave.</li> </ul>	<ul style="list-style-type: none"> <li>Lab</li> <li>Assignments</li> <li>Chapter Tests</li> <li>Unit Test</li> </ul>	<p>11.A.2b</p> <p>11.A.2c</p> <p>11.A.2d</p> <p>11.A.2e</p> <p>11.B.2a</p> <p>11.B.2b</p> <p>11.B.2c</p> <p>12.D.2a</p> <p>12.D.2b</p>
	<p><b>16. Work and Machines</b></p> <p>What is work?</p> <p>What are some simple machines?</p> <p>Where are some other simple machines?</p>	<ul style="list-style-type: none"> <li>Explain how a force can cause an object to move.</li> <li>Define <b>work</b>.</li> <li>Identify what is needed to measure work.</li> <li>Explain the advantages and disadvantages of performing a task with and without the help of a machine.</li> <li>Define <b>simple machine</b>.</li> <li>Describe a lever, a wheel-and-axle, and a pulley.</li> <li>Describe the mechanical advantage of using a ramp.</li> <li>Describe an inclined plane, a wedge, and a screw.</li> <li>Explain the relationship between an inclined plane and a screw.</li> </ul>	<ul style="list-style-type: none"> <li>Lab</li> <li>Assignments</li> <li>Chapter Tests</li> <li>Unit Test</li> </ul>	<p>11.A.2b</p> <p>11.A.2c</p> <p>12.D.2b</p>

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<p><b>Life Science-</b></p> <p>Living Things in Our World</p>	<p><b>1. Types of Living Things</b></p> <p>What are some types of living things?</p> <p>How do living things grow and change?</p>	<ul style="list-style-type: none"> <li>• Infer the importance of animal homes.</li> <li>• Identify and compare characteristics of living and nonliving things.</li> <li>• Describe the parts of a cell.</li> <li>• Observe the rate of seed growth.</li> <li>• Describe the life cycles of plants and animals.</li> </ul>	<ul style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Tests</li> <li>• Unit Test</li> </ul>	<p>11.A.2b</p> <p>11.A.2c</p> <p>12.A.2a</p> <p>12.A.2a</p>
	<p><b>2. Types of Plants</b></p> <p>What do plants need to live?</p> <p>What are some types of plants?</p> <p>How do plants make food?</p>	<ul style="list-style-type: none"> <li>• Describe what plants need to live.</li> <li>• Describe plant parts and their functions.</li> <li>• Describe how plants get what they need to live.</li> <li>• Explain that some plants grow from seeds.</li> <li>• Describe how plants can be grouped.</li> <li>• Describe and define seeds.</li> <li>• Explain that plants need energy from the sun.</li> <li>• Relate leaves to their functions.</li> </ul>	<ul style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Tests</li> <li>• Unit Test</li> </ul>	<p>11.A.2b</p> <p>11.A.2c</p> <p>12.B.2b</p>

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	<p data-bbox="428 159 800 201"><b>3. Types of Animals</b></p> <p data-bbox="470 256 758 342">What do animals need to live?</p> <p data-bbox="512 451 716 537">What are vertebrates?</p> <p data-bbox="491 646 737 732">What are invertebrates?</p>	<ul data-bbox="863 110 1234 789" style="list-style-type: none"> <li>• Describe animal habitats and homes.</li> <li>• Identify what animals need to live.</li> <li>• Describe how the environment meets the needs of animals.</li> <li>• Describe physical characteristics of mammals.</li> <li>• Describe the common characteristics of the different groups of vertebrates.</li> <li>• Describe how worms move.</li> <li>• Classify invertebrates.</li> <li>• Describe how the physical structures of invertebrates allow them to move, get food, and protect themselves.</li> </ul>	<ul data-bbox="1314 164 1583 350" style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Test</li> <li>• Unit Test</li> </ul>	<p data-bbox="1772 159 1906 201">11.A.2b</p> <p data-bbox="1772 207 1906 250">11.A.2c</p> <p data-bbox="1772 256 1906 298">12.B.2b</p>
<p data-bbox="107 889 348 1073"><b>Life Science- Living Things Interact</b></p>	<p data-bbox="428 889 800 976"><b>4. Where are Living Things Found?</b></p> <p data-bbox="428 1036 800 1078">What are ecosystems?</p> <p data-bbox="428 1182 800 1268">Where are some types of ecosystems?</p> <p data-bbox="428 1377 800 1463">How do living things survive in ecosystems?</p>	<ul data-bbox="863 829 1234 1508" style="list-style-type: none"> <li>• Observe and describe the habitats of organisms in an ecosystem.</li> <li>• Describe what makes up an environment.</li> <li>• Describe what makes up an ecosystem.</li> <li>• Describe different ecosystems.</li> <li>• Explain how ecosystems support plant and animal life.</li> <li>• Observe how camouflage can help an animal blend in.</li> <li>• Describe how organisms adapt to their environments.</li> <li>• Recognize that hibernation and migration are instincts.</li> <li>• Predict changes in an environment.</li> <li>• Describe how ecosystems change over time.</li> <li>• Explain how people change ecosystems.</li> </ul>	<ul data-bbox="1314 906 1583 1092" style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Test</li> <li>• Unit Test</li> </ul>	<p data-bbox="1772 889 1906 932">11.A.2b</p> <p data-bbox="1772 938 1906 980">11.A.2c</p> <p data-bbox="1772 987 1906 1029">11.A.2e</p> <p data-bbox="1772 1036 1906 1078">12.B.2a</p> <p data-bbox="1772 1084 1906 1127">12.B.2b</p>

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	<p data-bbox="464 159 764 293"><b>5. Living Things Depend on One Another</b></p> <p data-bbox="453 354 774 440">How do plants and animals interact?</p> <p data-bbox="426 548 802 586">What are food chains?</p> <p data-bbox="436 695 791 732">What are food webs?</p>	<ul data-bbox="863 142 1241 786" style="list-style-type: none"> <li>• Link animals' teeth with the food they eat.</li> <li>• Describe how living things get energy.</li> <li>• Explain why all animals depend on plants.</li> <li>• Describe what happens in a food chain and create a model food chain.</li> <li>• Explain how an energy pyramid shows energy passing through a food chain.</li> <li>• Explain what happens in a food web, how it can change, and construct a model food web.</li> <li>• Describe ways animals defend themselves.</li> </ul>	<ul data-bbox="1314 164 1583 347" style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Test</li> <li>• Unit Test</li> </ul>	<p data-bbox="1772 159 1906 191">11.A.2b</p> <p data-bbox="1772 207 1906 240">11.A.2c</p> <p data-bbox="1772 256 1906 289">11.A.2e</p> <p data-bbox="1772 305 1906 337">12.B.2a</p> <p data-bbox="1772 354 1906 386">12.B.2b</p> <p data-bbox="1772 402 1906 435">13.B.2f</p>
<p data-bbox="92 889 361 927"><b>Earth Science-</b></p> <p data-bbox="113 987 340 1024">Earth's Land</p> <p data-bbox="92 1084 361 1203">(Covered by Mrs. Sprague during Tech Class)</p>	<p data-bbox="407 889 819 927"><b>6. Minerals and Rocks</b></p> <p data-bbox="457 987 768 1073">What are minerals and rocks?</p> <p data-bbox="485 1182 741 1268">What are the types of rocks?</p> <p data-bbox="468 1377 758 1414">What are fossils?</p>	<ul data-bbox="863 862 1241 1544" style="list-style-type: none"> <li>• Explore hardness of minerals.</li> <li>• Define <b>minerals</b> and <b>rocks</b>.</li> <li>• Describe how to identify minerals by their properties.</li> <li>• Model how a rock is formed.</li> <li>• Identify the three different types of rocks.</li> <li>• Describe the way some rocks form from being worn down and carried away.</li> <li>• Explain ways people use rocks.</li> <li>• Model how a fossil forms.</li> <li>• Describe what fossils are and how they form.</li> <li>• Identify what scientists learn from fossils.</li> </ul>	<ul data-bbox="1314 906 1583 1089" style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Test</li> <li>• Unit Test</li> </ul>	<p data-bbox="1772 906 1906 938">11.A.2b</p> <p data-bbox="1772 954 1906 987">11.A.2c</p> <p data-bbox="1772 1003 1906 1036">12.E.2a</p>

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	<p style="text-align: center;"><b>7. Forces that Shape the Land</b></p> <p>What are landforms?</p> <p>How do landforms change slowly?</p> <p>How do landforms change quickly?</p>	<ul style="list-style-type: none"> <li>• Model and describe the formation of folded mountains.</li> <li>• Name and describe the layers of Earth.</li> <li>• Describe some of Earth's major landforms.</li> <li>• Model and observe the way water can break down rock.</li> <li>• Describe the effect of weathering on rock.</li> <li>• Explain how erosion changes Earth's surface.</li> <li>• Describe how earthquakes and volcanoes change Earth's surface.</li> <li>• Describe how floods change Earth's surface.</li> </ul>	<ul style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Test</li> <li>• Unit Test</li> </ul>	<p>11.A.2b 11.A.2c 11.A.2d 11.B.2b 11.B.2c 11.B.2d 12.E.2e</p>
	<p><b>8.Conserving Resources</b></p> <p>What are some types of resources?</p> <p>What are some types of soil?</p> <p>How do people use and impact the environment?</p> <p>How can resources be used wisely?</p>	<ul style="list-style-type: none"> <li>• Understand that some resources are mined.</li> <li>• Identify common resources.</li> <li>• Recognize the difference between renewable, reusable, and nonrenewable resources.</li> <li>• Compare different types of soil.</li> <li>• Identify the different materials in soil</li> <li>• Recognize the different layers soil forms.</li> <li>• Observe how pollution affects plants.</li> <li>• Identify how land is used.</li> <li>• Identify types of pollution.</li> <li>• Identify how much paper your class could recycle each week.</li> <li>• Explain conservation.</li> <li>• Identify ways to reduce, reuse, and recycle resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Lab Assignments</li> <li>• Chapter Test</li> <li>• Unit Test</li> </ul>	<p>11.A.2b 11.A.2c 11.A.2e 11.B.2b 11.B.2c 11.B.2d 12.E.2c</p>

