

Grade 3 – Science Curriculum

Earth and Space Science GLE	Student Friendly Language
<p>ESS1:3-4:4.1 Recognize features of the Earth as viewed by astronauts in orbit and as transmitted by scientific instruments on satellites and spacecraft.</p>	<p>I can recognize features of the Earth from pictures taken from space.</p>
<p>ESS2:3-4:1.1 Explain that night and day are caused by the Earth's rotation on its axis and that the Earth rotates approximately once, every 24 hours.</p>	<p>I know that the Earth makes one complete turn on its axis in 24 hours. I know that this turn causes day and night.</p>
<p>ESS2:3-4:1.2 Describe the Sun as a star.</p>	<p>I know that the Sun is a star.</p>
<p>ESS2:3-4:2.1 Recognize that the Sun provides the light and heat necessary to maintain the temperature of the Earth.</p>	<p>I know that the Sun gives us light and heat. I know that we need the Sun to stay warm on Earth.</p>
<p>ESS2:3-4:3.1 Recognize the Moon orbits the Earth.</p>	<p>I know that the Moon circles around the Earth.</p>
<p>ESS2:3-4:3.2 Recognize the Earth is one of a number of planets that orbit the Sun.</p>	<p>I know that the planets circle around the Sun.</p>
<p>ESS2:3-4:4.1 Recognize that although star patterns seen in the sky appear to move slowly each night from east to west, they actually remain the same, and explain why different stars can be seen during different seasons.</p>	<p>I know that stars don't move. I know that they seem to move from east to west at night because the Earth moves. I know why we see different stars during different seasons.</p>
<p>ESS2:3-4:4.2 Explain that planets look like stars, but observed over time they appear to wander among the constellations.</p>	<p>I know that the planets sometimes look like stars in the sky. I know that they seem to move among the constellations.</p>
<p>ESS3:3-4:1.1 Recognize that astronomical objects in space are massive in size and are separated from one another by vast distances.</p>	<p>I know that some objects in space are humongous and really far apart from one another.</p>
<p>ESS3:3-4:1.2 Explain how telescopes magnify the size of distant objects and significantly increase the number of these objects that can be viewed from Earth.</p>	<p>I know that we can use a telescope to make objects in space seem closer. I know that when we use telescopes we can see more things than when we do not use telescopes.</p>

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<p>ESS3:3-4:2.1 Recognize and describe the stars, like the Sun, as spherical in nature.</p> <p>ESS3:3-4:2.2 Recognize that stars come in different colors, and that the Earth's sun is a yellow star.</p> <p>ESS1:3-4:2.1 Describe Earth materials as rocks, soils, water in its liquid state, and the gases found in the atmosphere.</p> <p>ESS1:3-4:2.2 Describe rock as being composed of different combinations of minerals.</p>	<p>I know that the stars, and the Sun, are round.</p> <p>I know that stars can be different colors. I know that our star, the Sun, is a yellow star.</p> <p>I know that Earth materials are rocks, soils, liquid water and gases found in our atmosphere.</p> <p>I know that rocks are made of minerals.</p>
<p>ESS1:3-4:2.3 Given information about Earth materials, explain how their characteristics lend themselves to specific uses. [ESS1(K-4)FAF-6]</p>	<p>I know that we use things from Earth for certain uses.</p>
<p>ESS1:3-4:2.4 Given certain Earth materials (soils, rocks or minerals) use physical properties to sort, classify, and/or describe them. [ESS1(K-4)INQ-1]</p>	<p>I can sort things based on their characteristics.</p>
<p>ESS1:3-4:3.1 Recognize and explain that fossils provide evidence about plants and animals that lived long ago, and about the nature of the environment at that time.</p> <p>ESS1:3-4:6.1 Explain that smaller rocks come from the breakage and weathering of</p>	<p>I know that fossils teach us about plants, animals and the world from a long time ago.</p> <p>I can explain how smaller rocks are formed.</p>

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<p>larger rocks and bedrock.</p> <p>ESS1:3-4:6.2 Distinguish between the three categories of rocks, metamorphic, igneous and sedimentary, and describe the processes that create them.</p> <p>ESS1:3-4:6.3 Identify minerals by their physical properties and explain how minerals can be tested for them.</p> <p>ESS4:3-4:3.1 Distinguish between and provide examples of materials that can be recycled/reused and those that cannot.</p> <p>ESS4:3-4:3.2 Provide examples of technology that have changed the environment and explain whether the effect had a positive or negative impact.</p> <p>ESS4:3-4:3.3 Explain how to dispose of waste so that it does not harm the environment.</p> <p>ESS4:3-4:3.4 Recognize there are pros and cons to using different types of energy, such as solar energy and fossil fuels, and compare the differences.</p> <p>ESS4:3-4:4.1 Identify some jobs/careers that require knowledge and use of Earth science content and/or skills.</p>	<p>I can tell you about the three different types of rocks. I can tell you how each type is made.</p> <p>I can identify different minerals by their characteristics. I know how we can test for certain minerals.</p> <p>I know things that can be recycled and reused and things that cannot.</p> <p>I can give examples of how technology has changed the world around us. I know that some of those changes are good and some of those changes are bad.</p> <p>I know how to take care of my trash so it does not hurt nature.</p> <p>I know that there are different ways of making energy. I know that some of those ways are better for nature than others.</p> <p>I know that some people use science in their jobs.</p>
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Life Science GLE	Student Friendly Language
<p>LS1:3-4:1.1 Recognize the various ways in which living things can be grouped.</p>	<p>I know different ways to group living things.</p>
<p>LS1:3-4:1.2 Sort/classify different living things using similar and different characteristics. Describe why organisms belong to each group or cite evidence about how they are alike or not alike. INQ&POC-1</p>	<p>I can sort living things based on their characteristics. I can tell why some belong together and why some do not belong together.</p>
<p>LS1:3-4:2.1 Recognize that living organisms have distinct structures and body systems that serve specific functions in growth, survival, and reproduction.</p>	<p>I know that sometimes living things have special features that help them to live.</p>
<p>LS1:3-4:2.2 Identify and describe the function of the plant structures responsible for food production, water transport, support, reproduction, growth and protection.</p>	<p>I can describe each part of a plant and what it does.</p>
<p>LS1:3-4:2.3 Identify and explain how the physical structures of an organism (plants or animals) allow it to survive in its habitat/environment (e.g., roots for water; nose to smell fire) FAF-4.</p>	<p>I can point out and explain why special parts help an animal or plant live in a certain area.</p>
<p>LS1:3-4:2.4 Identify the basic needs of plants and animals in order to stay alive (i.e., water, air, food, space). SAE-2</p>	<p>I know that all living things need four things in order to live: air, water, food and space.</p>
<p>LS1:3-4:3.1 Distinguish between plant and animal characteristics that are inherited, such as eye color in humans and the shape of leaves in plants, and those that are affected by their environment, such as grass turning brown due to lack of water.</p>	<p>I know that animals get their features from their parents and that plants get their features from the plants they came from. I know that sometimes those features can change because of things around them.</p>
<p>LS1:3-4:3.2</p>	<p>I know that plants and animals have particular life cycles. I know that</p>

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<p>Recognize that plants and animals move through life cycles of birth, growth and development, reproduction, and death, and explain how these life cycles are different for different organisms.</p> <p>LS1:3-4:3.3 Describe the reproductive process of plants, including how some plants grow from seed and others grow from the parts of other plants.</p> <p>LS1:3-4: 3.4 Predict, sequence, or compare the life stages of organisms -plants and animals (e.g., put images of life stages of an organism in order, predict the next stage in sequence, and compare two organisms)POC-3</p>	<p>each living thing's life cycle can be a little different from one another.</p> <p>I can tell you how new plants are made.</p> <p>I know the stages of life for plants and animals.</p>
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Physical Science GLE	Student Friendly Language
<p>PS1:3-4:2.1 Recognize that substances can be classified by observable properties.</p>	<p>I know that we can group things by certain characteristics that I can see.</p>
<p>PS1:3-4:2.2 Explain that some materials can exist in different states, and describes the distinct physical properties of each state of matter.</p>	<p>I know that things can change from solid to a liquid or to a gas.</p>
<p>PS1:3-4:2.3 Explain how some materials, such as water, can change from one state to another by heating or cooling.</p>	<p>I know that by heating or cooling water, we can change its state.</p>
<p>PS1:3-4:2.4 Make a prediction about what might happen to the state of common materials when heated or cooled or categorize materials as solid, liquid, or gas. POC-2</p>	<p>I can predict what will happen if I cool or heat matter.</p>
<p>PS1:3-4:2.5 Collect and organize data about physical properties in order to classify objects or draw conclusions about objects and their characteristic properties (e.g., temperature, color, size, shape, weight, texture, flexibility)INQ-1</p>	<p>I can collect and sort information about materials. With that information, I can make predictions about those materials.</p>
<p>PS3:3-4:1.1 Recognize that magnets attract certain kinds of other materials and classify objects by those magnets will attract and those they will not.</p>	<p>I know that magnets attract certain materials. I can group things that magnets are attracted to and those that magnets are not attracted to.</p>
<p>PS3:3-4:1.2 Recognize that magnets attract and repel each other.</p>	<p>I know that magnets attract and repel each other.</p>
<p>PS3:3-4:1.3 Explain that electrically charged material pulls on all other materials and can attract or repel other charged materials.</p>	<p>I know that things can be charged by electricity. I know that those materials can attract or repel other electrically charged materials.</p>
<p>PS3:3-4:1.4 Recognize that the Earth's gravitational force pulls any object toward it.</p>	<p>I know that Earth's gravity pulls objects towards it.</p>

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<p>PS3:3-4:1.5 Use observations of magnets in relation to other objects to describe the properties of magnetism (i.e., attract or repel certain objects or has no effect) [PS3 (K-4) INQ+ SAE -8]</p>	<p>I can describe magnetism.</p>
<p>PS3:3-4:2.1 Use data to predict how a change in force (greater/less) might affect the position, direction of motion, or speed of an object (e.g., ramps and balls) [PS3 (K-4)-INQ+SAE -7]</p>	<p>I can use information to show that a change in force will change the position, direction or speed of an object.</p>
<p>PS4:3-4:1.1 Understand that materials are used in certain products based on their properties, such as strength and flexibility.</p>	<p>I know that we use certain materials to make things because they are strong or flexible.</p>
<p>PS4:3-4:1.2 Recognize that products are made using a combination of technologies, such as how an escalator uses both a pulley system and an electrical motor.</p>	<p>I know that we can combine technology to make things.</p>
<p>PS4:3-4:2.1 Demonstrate how to use tools, such as magnifiers, scales, balances, rulers, and thermometers to gather data and extend the senses.</p>	<p>I can use science tools to gather information.</p>
<p>PS4:3-4:2.2 Describe how some tools can be used to modify natural materials by processes such as separating, shaping, and joining, to produce new materials.</p>	<p>I can describe how we use tools to change natural materials.</p>
<p>PS4:3-4:3.1 Give examples of transportation systems used in New Hampshire, such as buses, trains, cars, and bicycles and describe the sources of energy they use.</p>	<p>I can give examples of how we move people and things in New Hampshire.</p>
<p>PS4:3-4:3.2 Explain that manufactured products are designed to solve a problem or meet a need.</p>	<p>I can explain that things are made because we need to solve a problem or because people need something different.</p>

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<p>PS4:3-4:3.3 Provide an example to illustrate that manufacturing involves changing natural materials into finished products, and explain that this results in the production of a large number of objects that look almost identical.</p> <p>PS4:3-4:4.1 Identify some jobs/careers that require knowledge and use of physical science content and/or skills.</p>	<p>I can give an example of taking things from nature to make something new. I know that sometimes when new things are made they are made in large numbers and each one looks alike.</p> <p>I know that some people use science in their jobs.</p>
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