

## Grade 5 Science

**\*\*Please note,** this document does not represent the total number of science activities that constitute a Learning Period. Instead, you may find these activities and worksheets helpful in introducing a topic or assessing your child's understanding and mastery of the corresponding concepts or "I Can" Statements.

### LP 1 Science Standards

- **5-LS1-1:** I can talk about how plants get most of what they need to grow from air and water.
- **5-LS2-1:** I can create a model that shows how matter moves among plants, animals, decomposers, and the environment.

Activity	Standard(s) Covered
<p><a href="#">Argue That Plants need Air/Water to Grow</a> <a href="#">Mystery Science Video</a></p> <p><b>Activity</b></p> <p>Each student needs the <i>Weighing the Air</i> worksheet (printed or digital) to record their observations.</p>	<ul style="list-style-type: none"><li>• <b>5-LS1-1:</b> I can talk about how plants get most of what they need to grow from air and water.</li><li>• <b>5-LS2-1:</b> I can create a model that shows how matter moves among plants, animals, decomposers, and the environment.</li></ul>

## LP 2 Science Standards

- **5-ESS1-1:** I can talk about how the apparent brightness of the sun and stars is a result of their relative distances from Earth.
- **5-ESS1-2:** I can use data to show patterns in daily changes of shadows, day and night, and stars in the night sky.

Activity	Standard(s) Covered
<p><a href="#">Stellar Brightness and Distance</a></p> <p>Assessment is limited to relative distances, not sizes, of stars. Assessment does not include other factors that affect apparent brightness (such as stellar masses, age, stage).</p> <p><a href="#">Thinking in Scale Video</a></p>	<ul style="list-style-type: none"><li>• I can talk about how the apparent brightness of the sun and stars is a result of their relative distances from Earth.</li><li>• 5-ESS1-2: I can use data to show patterns in daily changes of shadows, day and night, and stars in the night sky.</li></ul>

## LP 3 Science Standards

- **5-ESS2-1:** I can create a model that shows the relationships between the geosphere, biosphere, hydrosphere, and atmosphere.
- **5-ESS2-2:** I can use data to find the amounts of water and fresh water in various reservoirs. I can use what I know about water in reservoirs as evidence for the distribution of water on Earth.

Activity	Standard(s) Covered
<ul style="list-style-type: none"> <li>- <a href="#">Learn the Earth's Spheres</a></li> </ul> <p>The spheres are the four subsystems that make up the planet Earth. They are called <i>spheres</i> because they are round, just like the Earth. The four spheres are the geosphere (all the rock on Earth), hydrosphere (all the water on Earth), atmosphere (all the gasses surrounding Earth), and biosphere (all the living things on Earth).</p> <ul style="list-style-type: none"> <li>- <a href="#">Reservoirs and Earth's Systems</a></li> <li>- <a href="#">Water % in Reservoirs</a></li> </ul>	<ul style="list-style-type: none"> <li>• I can create a model that shows the relationships between the geosphere, biosphere, hydrosphere, and atmosphere.</li> <li>• 5-ESS2-2: I can use data to find the amounts of water and fresh water in various reservoirs. I can use what I know about water in reservoirs as evidence for the distribution of water on Earth.</li> </ul>

#### LP 4 Science Standards

<ul style="list-style-type: none"> <li>• <b>5-ESS3-1:</b> I can talk about ways that communities use science ideas to protect the Earth's resources and environment.</li> <li>• <b>5-PS1-1:</b> I can create a model that shows that matter is made of particles too small to be seen.</li> </ul>
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Activity	Standard(s) Covered
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<a href="#">Protecting the Earth</a> <b>Lesson Objective:</b> To describe different ways to protect Earth's resources and environment  <a href="#">Model of Matter as Made of Particles</a> – science experiment	<ul style="list-style-type: none"> <li>• I can talk about ways that communities use science ideas to protect the Earth's resources and environment.</li> <li>• 5-PS1-1: I can create a model that shows that matter is made of particles too small to be seen.</li> </ul>
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#### LP 5 Science Standards

<ul style="list-style-type: none"> <li>• <b>5-PS1-2:</b> I can conduct experiments that show the weight of matter does not change as a result of heating, cooling, or mixing substances.</li> <li>• <b>5-PS1-3:</b> I can identify materials based on their properties.</li> </ul>
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Activity	Standard(s) Covered
Choose at least one of the experiments about <a href="#">Conservation of Mass</a> to complete.	<ul style="list-style-type: none"> <li>• <b>5-PS1-2:</b> I can conduct experiments that show the weight of matter does not change as a result of heating, cooling, or mixing substances.</li> </ul>
Watch video on <a href="#">Properties and Structures of Matter</a> Complete Matching <a href="#">worksheet</a>	<ul style="list-style-type: none"> <li>• <b>5-PS1-3:</b> I can identify materials based on their properties.</li> </ul>

## LP 6 Science Standards

- **5-PS1-4:** I can conduct experiments to find out if mixing two or more substances makes new substances.
- **5-PS2-1:** I can give evidence that the gravitational force exerted by Earth on objects is directed down.

Activity	Standard(s) Covered
<ul style="list-style-type: none"> <li>• Make <a href="#">elephant toothpaste</a>. Record results and explain the reaction caused by mixing substances.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>5-PS1-4:</b> I can conduct experiments to find out if mixing two or more substances makes new substances.</li> </ul>
<ul style="list-style-type: none"> <li>• Watch <a href="#">The Great Picnic Mix Up</a> and then <a href="#">Chemical Changes</a>. Then try your own <a href="#">mixture/solution experiments!</a> Show off your knowledge with this <a href="#">worksheet</a>.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>5-PS1-4:</b> I can conduct experiments to find out if mixing two or more substances makes new substances.</li> </ul>
<ul style="list-style-type: none"> <li>• Watch <a href="#">Gravity video</a> (up to 6:50)</li> <li>• Make a <a href="#">DIY Slingshot</a> and observe how the pom poms are always pulled downward.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>5-PS2-1:</b> I can give evidence that the gravitational force exerted by Earth on objects is directed down.</li> <li>• </li> </ul>

## LP 7 Science Standards

- **5-PS3-1:** I can explain that energy in food was once energy from the sun.
- **3-5-ETS1-1:** I can find a design that needs to be fixed. I can define what a successful design would involve. I can plan the amount of materials, time, or money that it would take to complete the fix.

Activity	Standard(s) Covered
<ul style="list-style-type: none"> <li>Complete the <a href="#">Energy Flow activity</a> online and study these <a href="#">Energy Flow diagrams</a>, then create your own picture of energy flowing from the sun → plants → animals/</li> </ul>	<ul style="list-style-type: none"> <li><b>5-PS3-1:</b> I can explain that energy in food was once energy from the sun.</li> </ul>
<ul style="list-style-type: none"> <li>Read about <a href="#">Food and Energy</a></li> </ul>	<ul style="list-style-type: none"> <li><b>5-PS3-1:</b> I can explain that energy in food was once energy from the sun.</li> </ul>
<ul style="list-style-type: none"> <li>Watch <a href="#">Fixing Failure Points</a> and do activity below.</li> <li>Complete the <a href="#">Marshmallow Tower Challenge!</a></li> </ul>	<ul style="list-style-type: none"> <li><b>3-5-ETS1-1:</b> I can find a design that needs to be fixed. I can define what a successful design would involve. I can plan the amount of materials, time, or money that it would take to complete the fix.</li> <li><b>3-5-ETS1-2:</b> I can evaluate possible solutions to a problem when presented with more than one solution. I can discuss which solution would work best and tell you why.</li> <li><b>3-5-ETS1-3:</b> I can test a model or prototype so that I can figure out what improvements are needed.</li> </ul>

## LP 8 Science Standards

- **3-5-ETS1-2:** I can evaluate possible solutions to a problem when presented with more than one solution. I can discuss which solution would work best and tell you why.
- **3-5-ETS1-3:** I can test a model or prototype so that I can figure out what improvements are needed.

Activity	Standard(s) Covered
Choose one of these <a href="#">STEM building challenges</a> and use this planning sheet to record your process.	<ul style="list-style-type: none"><li>• <b>3-5-ETS1-2:</b> I can evaluate possible solutions to a problem when presented with more than one solution. I can discuss which solution would work best and tell you why.</li><li>• <b>3-5-ETS1-3:</b> I can test a model or prototype so that I can figure out what improvements are needed.</li></ul>