

Science Domain	Storyline	NGSS* Topic	Performance Expectations	Time Estimate
<b>Physical Science</b>	<p><b><u>Energy: Movement, Changes, and Sources</u></b></p> <p>In this Storyline, students develop an understanding of how energy in various forms moves from place to place, transfers from one object to another, and converts into other forms. Using the principles of energy transfer and conversion, students design circuits and carry out tests to ensure their circuits function as intended. Students also learn that people make use of natural resources to generate energy and come to recognize how the use of natural resources affects the environment.</p>	<b>Energy</b>	4-PS3-1 4-PS3-2 4-PS3-3 4-PS3-4 4-ESS3-1 3-5-ETS1-3	Lesson 1: 7–10 days Lesson 2: 8–10 days Lesson 3: 6–8 days Lesson 4: 5–9 days Lesson 5: 4–7 days Lesson 6: 5–8 days Lesson 7: 5–9 days TOTAL: 40–60 days
<b>Physical Science</b>	<p><b><u>Using Waves and Patterns to Transfer Information</u></b></p> <p>In this Storyline, students develop an understanding of waves and their properties, including the fact that waves represent patterns of information that are the basis for how many forms of modern technology function. Students explore how humans and other animals use patterns of information to communicate, and then apply this understanding of information transfer to design and compare solutions aimed at communication.</p>	<b>Waves: Waves and Information</b>	4-PS4-1 4-PS4-3 3-5-ETS1-3	Lesson 1: 7–10 days Lesson 2: 6–10 days Lesson 3: 6–10 days Lesson 4: 7–10 days TOTAL: 25–40 days
<b>Life Science</b>	<p><b><u>Features of Plants and Animals</u></b></p> <p>In this Storyline, students develop an understanding of the many external and internal structures of plants and animals that function to support survival, growth, and reproduction. These structures include the sense organs of animals that provide information about the environment to the brain, which then processes the information and causes behavioral responses.</p>	<b>Structure, Function, and Information Processing</b>	4-PS4-2 4-LS1-1 4-LS1-2	Lesson 1: 6–10 days Lesson 2: 5–9 days Lesson 3: 7–10 days Lesson 4: 6–10 days TOTAL: 20–40 days
<b>Earth and Space Science</b>	<p><b><u>Shaping the Earth</u></b></p> <p>In this Storyline, students develop an understanding of how evidence is gathered and used to explain the ways in which Earth has changed over time. They investigate cause-and-effect relationships of weathering and erosion, and analyze maps to discover patterns of Earth's features, including mountains, deep-ocean trenches, volcanoes, and earthquakes. Then students apply their understanding of Earth's processes to design a solution that solves a problem related to the effects of natural disasters.</p>	<b>Earth's Systems: Processes that Shape the Earth</b>	4-ESS1-1 4-ESS2-1 4-ESS2-2 4-ESS3-2 3-5-ETS1-1 3-5-ETS1-2	Lesson 1: 7–10 days Lesson 2: 7–10 days Lesson 3: 7–10 days Lesson 4: 7–10 days TOTAL: 25–40 days

**NOTE:** One "day" represents a typical classroom session of 45–60 minutes.