Science A–Z

ENERGY (K–2)

Correlation of Resources to National Science Standards

Use the chart below to discover how selected Science A–Z resources in the Energy unit support certain Next Generation Science Standards (NGSS). While a single reading resource, science activity, comprehension support, or lesson cannot satisfy an entire Performance Expectation, using these resources together can help students develop the understandings and abilities they will need in order to satisfy each standard listed below. Most standards cited align with the grade level of this Science A–Z unit. For a reverse correlation tool that connects the standards to resources, visit our NGSS correlations page: www.sciencea-z.com/main/NextGenerationScienceStandards.*

Check the Performance Expectations Key below this chart for the complete text of the standards cited for each resource.

Resource Type	Resource Title	Performance Expectations
Unit Nonfiction Book	*Energy is Everywhere* (3 reading levels)	**K-PS3-1; 1-PS4-1; 2-PS1-4; 3-PS2-2; 4-PS3-2**
Process Activity	*Rolling Down a Ramp*	**K-PS2-1; K-PS2-2; K-2-ETS1-3; 3-PS2-2**
Process Activity	*Tuning Forks and Sound*	**1-PS4-1**
FOCUS Book	*Is Light Good or Bad?*	**K-PS3-1; 1-PS4-3**
FOCUS Book	*Energy on the Playground*	**K-PS2-2; K-2-ETS1-3**
FOCUS Book	*Heat in the Kitchen*	**2-PS1-4; K-2-ETS1-3; 4-PS3-2**
FOCUS Book	*The Sound of Drums*	**1-PS4-1; K-2-ETS1-3; 4-PS3-2**
FOCUS Book	*Static Electricity*	**3-PS2-3; 4-PS3-2**
Investigation Pack	Topic: Things That Make Heat I. Files: *Toaster; Clothes Dryer; Fireplace; Hand Warmers* Mystery File: *Microwave Oven*	**4-PS3-2**
Debate	*Crosswalk Safety*	**1-PS4-1; 1-PS4-4**
Science Video	*Cow Power*	**K-2-ETS1-3; 4-PS3-2**
Science Video	*What Is Electricity?*	**4-PS3-2**
Science Video	*Pipe Dream, by Animusic*	**1-PS4-1; 1-PS4-4**
Career Files	*Electrical Engineer; Electrician; Musician; Solar Panel Installer*	**K-PS3-1; K-2-ETS1-3; 4-PS3-2**
Quick Read	*Elephants Make Sounds* (3 reading levels)	**1-PS4-1**
Quick Read	*Energy from Food* (3 reading levels)	**K-LS1-1**

Continued on next page

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Resource Type	Resource Title	Performance Expectations
Quick Read	*How Bugs Make Sounds* (3 reading levels)	**1-PS4-1**
Quick Read	*How a Flashlight Works* (3 reading levels)	**1-PS4-2; 1-PS4-3**
Concept Books	*Light Energy; Sound Energy; Motion Energy; Heat Energy; Electrical Energy*	**K-PS2-1; K-PS3-1; 1-PS4-1; 4-PS3-2**

Performance Expectations Key

K-PS2-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.

K-PS2-2. Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.

K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.

K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.

1-PS4-2. Make observations to construct an evidence-based account that objects can be seen only when illuminated.

1-PS4-3. Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.

1-PS4-4. Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.

2-PS1-4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.

K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

3-PS2-2. Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

3-PS2-3. Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.

4-PS3-2. Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.