

Simply Science™ • Aligns with National and State Standards

Energy

Standard

How Simply Science™ Aligns

Physical Science

- Students understand motion of objects.

In Chapter 4, Students learn

- that sound is produced by vibrating objects.
- that vibrating objects move back and forth and up and down rapidly.
- that sound waves move through the air to our eardrums, along nerves to our brains.
- that pitch and loudness can be changed.
- that pitch depends upon the frequency of the vibrating object.
- that sound waves have energy.

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- Students understand light.

In Chapter 4, Students learn

- that light travels in a straight line until it strikes an object.
- the following vocabulary: reflection, absorption, refraction, as they relate to light waves.
- that optical illusions occur when light is refracted as it passes through certain matter.
- about the color spectrum that is found in all light.

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- Students develop an understanding of electricity.

In Chapter 1, students understand safety rules around electricity.

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Physical Science

- Students understand magnets.

In Chapter 3, Students learn

- that magnets attract certain kinds of materials.
- that magnets attract and repel each other.
- about the poles of magnets.
- that magnets can move objects without touching them.
- that a compass is an instrument for finding directions since the magnetic needle always points north.
- how the first compasses were made.
- to follow a compass within their school environment.

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- Students understand light.

In Chapter 4, Students learn

- that light travels in a straight line until it strikes an object.
 - the following vocabulary: reflection, absorption, refraction, as they relate to light waves.
 - that optical illusions occur when light is refracted as it passes through certain matter.
 - about the color spectrum that is found in all light.
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Physical Science

- Students will develop an understanding of heat.

In Chapter 5, Students learn

- that heat can be produced in many ways.
- that heat is measured by temperature.
- that heat moves from warmer objects to cooler objects.
- that when one form of energy changes into another form of energy, heat energy is usually produced.
- that heat energy is either lost or used.
- that energy can change forms and energy can be transferred in many ways.

Earth and Space Science

- Students will understand the properties of earth materials.

In Chapter 2, Students learn

- that natural resources are produced by natural materials.
 - that some resources are renewable, while others are nonrenewable.
 - the energy sources in nature--i.e.the sun, wind, water.
 - about the different forms of energy that we use everyday--solar, electric, food.
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