

Energy, Work, and Simple Machines



How does energy cause change?

Before You Read

Before you read the chapter, think about what you know about energy and work. Record your ideas in the first column. Pair with a partner, and discuss his or her thoughts. Write those ideas in the second column. Then record what you both would like to share with the class in the third column.

Think	Pair	Share

Chapter Vocabulary

Lesson 1	Lesson 2	Lesson 3
<p>NEW energy kinetic energy electric energy potential energy chemical energy nuclear energy mechanical energy thermal energy sound energy seismic energy radiant energy</p>	<p>NEW energy transformation law of conservation of energy work</p> <p>ACADEMIC transform</p>	<p>NEW simple machine inclined plane screw wedge lever wheel and axle pulley complex machine efficiency</p> <p>REVIEW plane</p>

Lesson 1 Types of Energy

Predict three facts that will be discussed in Lesson 1 after reading the headings. Record your predictions in your Science Journal.

Main Idea

What is energy?

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Kinetic Energy

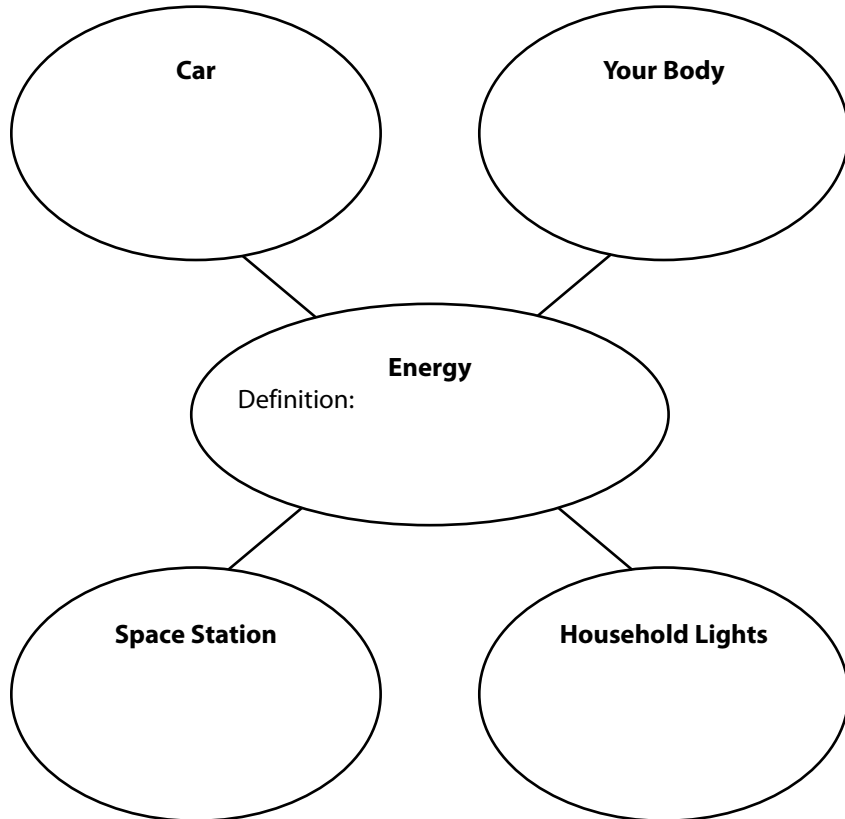
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Potential Energy

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Details

 **Determine** sources of energy for different objects.



 **Explain** why electric energy is a type of kinetic energy.

Define potential energy.

Lesson 1 | Types of Energy (continued)

Main Idea

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Kinetic and Potential Energy Combined


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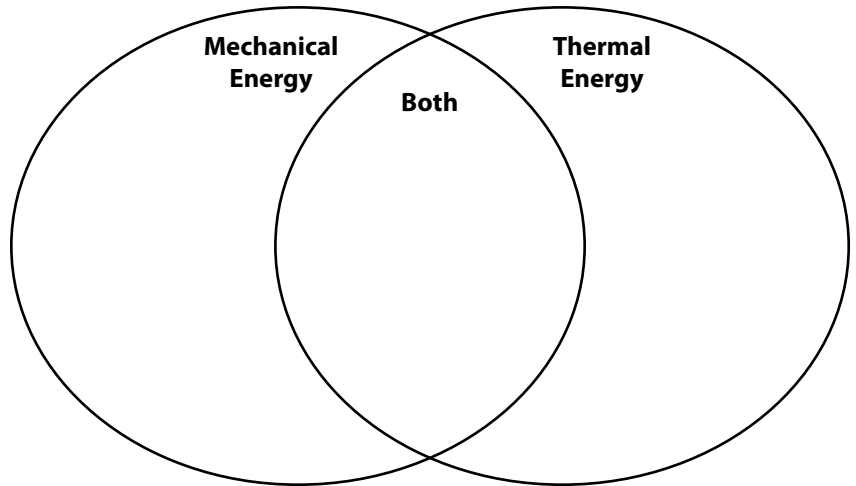
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Details

 **Describe** types of potential energy.

Type	Description
Gravitational potential energy	
Chemical energy	
Nuclear energy	

 **Compare and contrast** mechanical energy *and* thermal energy. Use the terms kinetic energy *and* potential energy.



 **Sequence** the production of electricity from a geothermal energy source.



Lesson 1 | Types of Energy (continued)

Main Idea

Energy from Waves

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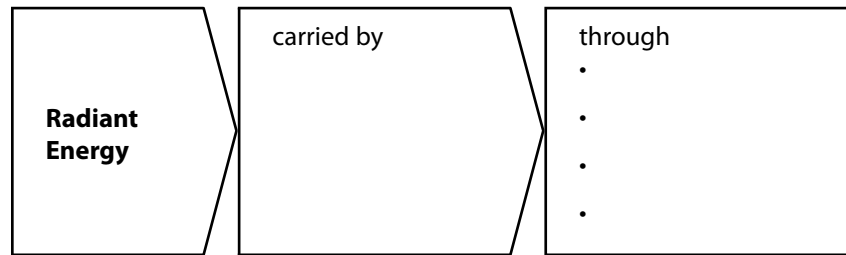
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Details

 **Describe** how waves are related to sound energy, seismic energy, and both.


Sound Energy	Both	Seismic Energy

 **Characterize** radiant energy.



 **Classify** uses of different types of energy. Review the lesson if you need help.

Type	Example of Use
Kinetic	
Gravitational potential	
Chemical	
Sound	
Radiant	

 **Connect It** Identify three examples of energy you can observe from where you are right now.
