

Check In: WHAT IS ENERGY?



What is energy and how is it used?

Overview

In *What Is Energy?*, you will look at the different ways in which we see and use energy in everyday life.

Think About This

It takes energy to change the speed or direction in which an object is moving. Does it take energy to stop a moving object?

Record What You See

Use the table below to write down examples from the activity where energy was used in these four ways.



Use of energy	Example from activity
Energy is needed to move an object.	
Energy causes things to vibrate to make sound.	
Energy changes how an object moves.	
Energy changes matter.	

Check Out: WHAT IS ENERGY?

Use your Check In sheet and what you remember from the activity to answer these questions.



What is energy and how is it used?

1. What is energy?

2. Describe four ways in which energy is used.

3. Give an example of energy being used to change matter.

4. Let's say you are riding a bike on flat pavement. You are going slow and want to go faster. How do you use energy to make the bike go faster?

Check In: FORMS OF ENERGY



What are some forms that energy takes?

Overview

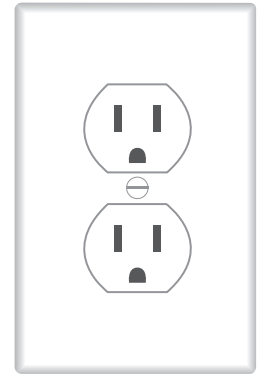
In the first part of *Forms of Energy*, you will be looking at the different forms that energy takes, such as electrical energy and the energy of motion.

Think About This

You rub your hands together. That is energy of motion. If you rub your hands together fast enough, they get warm. Where does the energy you feel as warmth come from?

Record What You See

Name three forms of energy you observed in the kitchen. Where did that energy finally end up?



Look around your classroom. What forms of energy do you observe? What are they doing now and what could they be used to do?



Can you always sense energy?

Overview

In the second part of *Forms of Energy*, you will be examining which human senses might be useful in sensing different forms of energy.

Think About This

Are there invisible forms of electricity? How would you detect those?

Record What You See

Use the table below to record which human sense is useful in sensing, or detecting, the three different forms of energy.

	Human senses				
Form of energy	Seeing	Hearing	Smelling	Tasting	Touching
Light					
Sound					
Thermal					

Check Out: FORMS OF ENERGY

Use your Check In sheet and what you remember from the activity to answer these questions.



What are some forms that energy takes?

1. Name four forms of energy.

2. Give an example of motion energy. What is moving? What makes it move?

3. Name the different forms of energy that are involved in making a grilled cheese sandwich. How is each form of energy used in making the sandwich?



Can you always sense energy?

4. Which of your senses do you use to detect light energy?

5. Which of your senses do you use to detect sound energy?

6. A book falls off a desk behind your back. Describe two ways that you are able to sense energy from that book falling and hitting the floor.
