



Energy: Forms and Transfer

Name: _____

Date: _____

Grade: Grade 4

Part A: Fill in the Blank

Write the missing word or number on each line.

1. When you ride a bike, the chemical energy from food in your body changes into _____ energy of motion.
2. A microwave oven changes electrical energy into _____ energy that warms your food.
3. When you pluck a guitar string, motion energy transforms into _____ waves you can hear.
4. A flashlight changes the chemical energy in its battery into electrical energy and then into _____ energy.
5. When water flows through a dam, its kinetic energy can spin a turbine and make _____ energy.
6. A toaster turns electrical energy into heat energy and a small amount of _____ energy when the wires glow red.
7. A solar panel transforms _____ energy from the sun into electrical energy.
8. When you rub your hands together quickly, kinetic energy turns into _____ energy that warms your skin.
9. A speaker takes electrical energy and changes it into _____ energy that travels through the air.

Part B: Matching

Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

Bicycle while pedaling	→ _____	Chemical (food) to kinetic (motion)
Microwave oven warming soup	→ _____	Electrical to heat (thermal)
Guitar string vibrating	→ _____	Motion to sound waves
Solar panel on a roof	→ _____	Light to electrical

Part A: Fill in the Blank

Write the missing word or number on each line.

1. When you ride a bike, the chemical energy from food in your body changes into kinetic energy of motion.
2. A microwave oven changes electrical energy into heat energy that warms your food.
3. When you pluck a guitar string, motion energy transforms into sound waves you can hear.
4. A flashlight changes the chemical energy in its battery into electrical energy and then into light energy.
5. When water flows through a dam, its kinetic energy can spin a turbine and make electrical energy.
6. A toaster turns electrical energy into heat energy and a small amount of light energy when the wires glow red.
7. A solar panel transforms light energy from the sun into electrical energy.
8. When you rub your hands together quickly, kinetic energy turns into heat energy that warms your skin.
9. A speaker takes electrical energy and changes it into sound energy that travels through the air.

Part B: Matching

Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

Bicycle while pedaling	→	<u>Chemical (food) to kinetic (motion)</u>	Chemical (food) to kinetic (motion)
Microwave oven warming soup	→	<u>Electrical to heat (thermal)</u>	Electrical to heat (thermal)
Guitar string vibrating	→	<u>Motion to sound waves</u>	Motion to sound waves
Solar panel on a roof	→	<u>Light to electrical</u>	Light to electrical