



# Energy: Forms and Transfer

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Grade: Grade 4

## Part A: Multiple Choice

Circle the best answer for each question.

1. A child pedals a bicycle up a hill. Which energy chain matches what happens?

- A) Light to chemical to motion to potential energy
- B) Chemical (in food) to motion (pedaling) to kinetic and potential energy of the bike
- C) Sound to electrical to potential energy
- D) Heat to chemical to light energy

2. Why does a desk lamp feel warm after being on for a while, even though it is meant to give off light?

- A) Some electrical energy is changed into heat energy as well as light
- B) All electrical energy becomes only sound energy
- C) The lamp creates new energy out of nothing
- D) The lamp turns light energy into chemical energy

3. Which statement best matches the idea of conservation of energy in Grade 4 Science?

- A) Energy disappears when a battery runs out
- B) Energy can only be created by big machines
- C) Energy is never made or destroyed; it only changes form
- D) Energy only exists in moving objects

4. An electric oven cooks a pizza. Which best describes the main energy transfer to the pizza?

- A) The pizza loses chemical energy to the air
- B) Electrical energy in the oven becomes heat energy that transfers to the pizza
- C) Light energy from the pizza becomes electrical energy
- D) Sound energy from the oven becomes chemical energy in the pizza

## Part B: Fill in the Blank

Write the correct answer on each line.

1. When a bouncing ball loses height with each bounce, energy is being transferred to the ground and the air, mostly as \_\_\_\_\_ energy.

2. A guitar string changes motion energy into \_\_\_\_\_ energy that travels to your ears.

3. In a complete energy chain, the total amount of energy at the start equals the total amount at the \_\_\_\_\_.

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**Part B: Fill in the Blank**

Write the correct answer on each line.

1. When a bouncing ball loses height with each bounce, energy is being transferred to the ground and the air, mostly as heat energy.

2. A guitar string changes motion energy into sound energy that travels to your ears.

3. In a complete energy chain, the total amount of energy at the start equals the total amount at the end.

4. A hand-cranked flashlight first turns motion energy into electrical energy, then into light energy.