

Energy at Work

Find how energy makes movement and change happen.

5.2.a "energy is the ability to do work or to cause change;"

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each phrase that tells what energy makes move or change. Circle the words that name where the energy comes from.

Garden Energy

- ① At the school garden, Maya presses a hand pump to move water from a bucket into a watering can. Her muscles use energy from food. Because the pump handle moves, water rises through the tube. The moving water changes the dry soil into wet soil. Energy is the ability to do work, such as moving the water, or to cause change, such as making the soil wet.
- ② Later, a breeze turns a small pinwheel near the garden sign. Wind has energy because it makes the pinwheel spin. The spinning pinwheel does work when it turns its axle. If the breeze stops, the pinwheel slows and then stays still. The wind's energy caused a change from a still pinwheel to a moving pinwheel.
- ③ During cleanup, Luis uses a battery-powered cart to carry heavy bags of leaves. Energy stored in the battery makes the cart's motor turn, so the cart rolls across the path. The cart does work by moving the bags to the compost bin. After the battery runs down, the motor cannot keep turning, and the cart no longer moves the bags. Without available energy, that work cannot happen.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What does energy from Maya's food help move?

2 In Maya's garden task, what is the work, and what change happens?

3 How does the passage show that wind has energy?

4 After the cart's battery runs down, what work can the cart no longer do?

3 YOUR TURN _____ Your own words

Write three sentences about a situation not in the reading. Name the energy source, tell what work happens, and explain one change the energy causes.

PART 1 • READ AND MARK

Underline each phrase that tells what energy makes move or change. Circle the words that name where the energy comes from. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What does energy from Maya's food help move?	It helps move the pump handle and the water.
2	In Maya's garden task, what is the work, and what change happens?	The work is moving water from the bucket into the watering can. The change is that dry soil becomes wet.
3	How does the passage show that wind has energy?	The wind makes the pinwheel spin, changing it from still to moving.
4	After the cart's battery runs down, what work can the cart no longer do?	It can no longer move the bags of leaves to the compost bin.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Jada eats lunch before riding her scooter. Energy from her food lets her legs push the scooter, doing work by moving it down the sidewalk. The energy changes the scooter from still to moving.

Accept responses that accurately identify energy as causing movement, work, or another change. For the open response, accept any reasonable energy source and a clear, accurate connection to work or change.