



# BrainPOP – Forms of Energy

Directions: Answer the following questions as you watch the BrainPOP video on Forms of Energy. Then watch the video again and fill in any given examples of kinetic and potential energy on the last page.

What is energy?

What are the types of energy?

**Energy Reading**

Complete a 20-word gist summary for each heading of the reading. Remember to write down key words, phrases, and ideas as you read. Make sure your gist summary includes the main ideas and important points, is grammatically correct, and is exactly 20 words.

Key Words: **Energy**

Gist

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Key Words: **Kinetic Energy**

Gist

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Key Words: **Potential Energy**

Gist

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

✓ **Kinetic energy is** \_\_\_\_\_.

## Kinetic Energy – BrainPOP

Directions: Watch the video on Kinetic Energy then using the words below fill in blanks.

**KINETIC ELECTRICITY COLLIDE SPEED MORE DESTROYED MASS TRANSFERRED**

1. The amount of \_\_\_\_\_ energy an object has depends on its \_\_\_\_\_ and its \_\_\_\_\_.
2. A fast-moving object with a lot of \_\_\_\_\_ will have a lot of kinetic energy.
3. An object with high mass and low \_\_\_\_\_ can have more kinetic energy than an object with low \_\_\_\_\_ and high speed.
4. If two objects have the same \_\_\_\_\_, the one moving faster will have \_\_\_\_\_ kinetic energy.
5. Kinetic energy can be \_\_\_\_\_ from one object to another when the objects \_\_\_\_\_.
6. \_\_\_\_\_ energy can be transformed to give us \_\_\_\_\_.
7. Energy can be \_\_\_\_\_ and stored, but cannot be created or \_\_\_\_\_.

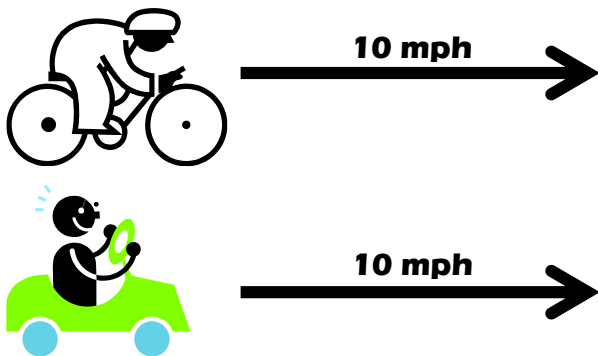
✓ **Nothing moves** \_\_\_\_\_.

### EXAMPLES:

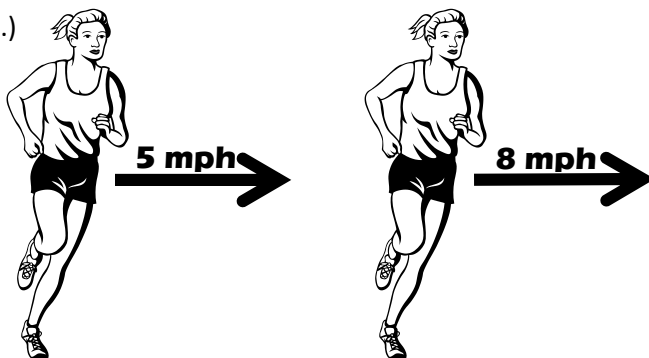
the

Circle the object with the most kinetic energy.

1.)



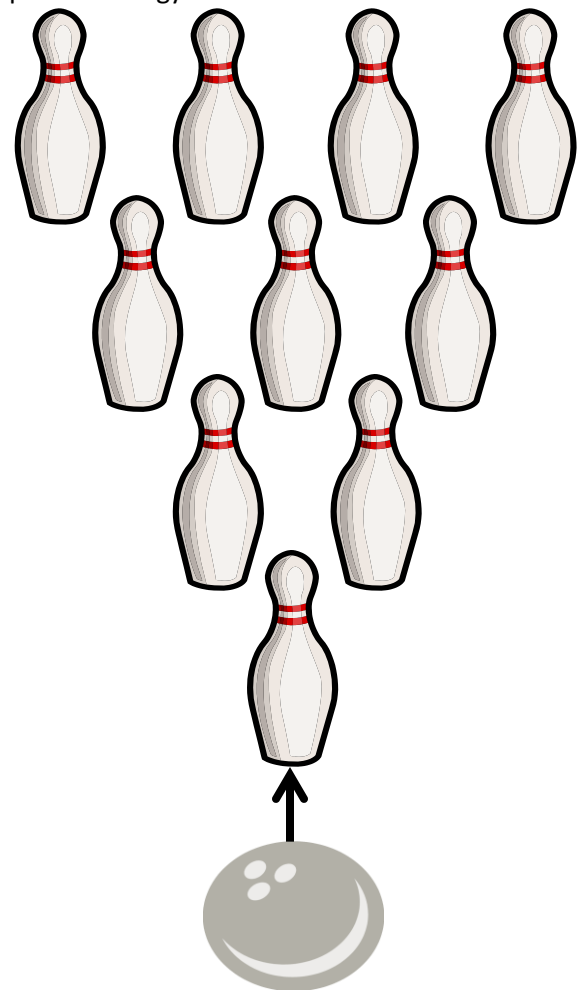
2.)



✓ **Potential energy is** \_\_\_\_\_.

Draw the path of energy transferred from the ball to

pins.



# Potential Energy – BrainPOP

Directions: watch the video on Potential Energy and circle the correct letter that answers the questions below.

<p><b>1.</b> What is potential energy?  <b>A.</b> The energy an object has due to its position or condition  <b>B.</b> The energy an object has due to its motion  <b>C.</b> The energy an object has due to its chemical composition  <b>D.</b> The energy an object has due to its atomic structure</p>	<p><b>5.</b> When is potential energy transformed into kinetic energy?  <b>A.</b> When an object at rest is lifted to a higher elevation  <b>B.</b> When an object at rest remains at rest  <b>C.</b> When an object at rest is put into motion  <b>D.</b> When an object in motion is stopped and put at rest</p>
<p><b>2.</b> What is kinetic energy?  <b>A.</b> The energy an object has due to its position or condition  <b>B.</b> The energy an object has due to its motion  <b>C.</b> The energy an object has due to its chemical composition  <b>D.</b> The energy an object has due to its atomic structure</p>	<p><b>6.</b> Which is the best synonym for potential energy?  <b>A.</b> Stored energy  <b>B.</b> Energy of motion  <b>C.</b> Energy due to gravity  <b>D.</b> Mechanical energy</p>
<p><b>3.</b> When does an object have no kinetic energy?  <b>A.</b> When it's at rest  <b>B.</b> When it's moving very slowly  <b>C.</b> When the only force that's acting on it is gravity  <b>D.</b> When it has no electrical charge</p>	<p><b>7.</b> Why do objects at high elevations have more potential energy?  <b>A.</b> Because the thinner air at higher elevations means objects have a greater potential to move very fast  <b>B.</b> Because objects at high elevation are closer to the sun, which is the source of all energy on earth  <b>C.</b> Because objects at high elevations tend to move slower than objects at low elevations  <b>D.</b> Because gravity gives objects at high elevations the potential to fall much further</p>
<p><b>4.</b> Which object has the most potential energy?  <b>A.</b> A ball resting on the ground  <b>B.</b> A ball being thrown at 100 miles per hour  <b>C.</b> A ball on top of a refrigerator  <b>D.</b> A ball resting on the edge of a cliff</p>	

✓ **Remember:** The \_\_\_\_\_ up an object, the \_\_\_\_\_ potential energy it has.

## EXAMPLES:

Give **5 examples** of objects that have potential energy.

- 1.
- 2.
- 3.
- 4.
- 5.

Circle the object that has the **MOST** potential

