

Kinetic and Potential Energy

READ ALOUD PASSAGE

There are two important types of energy that scientists talk about. The first is kinetic energy, which is the energy of motion. Any object that is moving has kinetic energy. A rolling ball, a flying bird, and a rushing river all have kinetic energy. The faster something moves, and the more mass it has, the more kinetic energy it has.

The second type is potential energy, which is stored energy that is ready to be released. A ball sitting at the top of a ramp has potential energy because gravity can pull it down. A stretched rubber band has potential energy because it can spring back. A coiled spring has potential energy. A battery that is fully charged has potential energy stored as chemical energy.

These two types of energy are always changing back and forth. When you hold a ball at the top of a ramp, it has potential energy. When you let it roll, that potential energy changes into kinetic energy. At the bottom of the ramp, it has the most kinetic energy.

Energy also flows through living things. Plants take in sunlight energy and store it. Animals eat the plants and use that stored energy to move and grow. This is how energy flows from the sun to all living things.

Activity 1

Because / But / So Complete each sentence three different ways.

A ball at the top of a ramp has potential energy because

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A ball at the top of a ramp has potential energy but

.....

A ball at the top of a ramp has potential energy so

.....

Activity 2

Fill in the blank with the correct word from the word box.

WORD BOX

kinetic potential motion stored releases

1. Kinetic energy is the energy of _____.
2. Potential energy is _____ energy that is ready to be used.
3. A moving ball has _____ energy.
4. A stretched rubber band has _____ energy.
5. When a rubber band snaps, it _____ its stored energy as movement.

Activity 3

Combine the short sentences below into one smooth sentence.

1.
 - A ball at the top of a ramp has potential energy.
 - When it rolls down, the energy becomes kinetic.
 - The ball moves faster as it goes.

Combined sentence:

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2.
 - A stretched rubber band has stored energy.
 - When released, the energy becomes motion.
 - This is an energy transformation.

Combined sentence:

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Activity 4

Put the words in the correct order to make a complete sentence. Add correct capitalization and punctuation. 1. energy / kinetic / the / motion / of / is

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2. stored / energy / potential / is / energy
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