

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 often change 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: Two Into One

Put the two short sentences together into one smooth sentence. If there is a word in the box, use it.

1. The ball is moving.

so

The ball has kinetic energy.

2. A spring stores energy.

and

A battery stores energy.

Activity 2: Four Kinds of Sentences

Write four different kinds of sentences. Use the word in bold in each one.

(kinetic energy) Statement:

(potential energy) Question:

(motion) Exclamation:

Science Mad Lib

Fold the page on the dashed line so the story is hidden. Write a word for each blank. Then unfold the page, copy your words into the story, and read it aloud.

1 _____
A name

2 _____
A plural noun

3 _____
A number

4 _____
A plural noun

FOLD HERE

THE STORY

_____ rolled a ball up a ramp made of _____. At the top, the ball
1 2
had potential energy, stored energy waiting to be used. Then _____ let go.
1
As the ball rolled down, that stored energy turned into kinetic energy, the energy
of motion. At the bottom, it knocked over _____ _____. Strike!
3 4
That's kinetic energy at work.