

# What Are Some Forms of Energy?

## Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

**energy** [EN•er•jee] the ability to cause change in matter. Everything that moves has energy.

If you had a lump of clay, what would you make with it? Whatever you make, will show that you have *energy*, because you will cause a change in the clay.

*Energy* and *engine* begin the same way. An engine causes a car to move. Enough *energy* can cause anything to move.

**kinetic energy** [kih•NET•ik EN•er•jee] the energy of motion

*Kinetic* and *kick* begin with the same sounds. When you kick something, you use *kinetic* energy because your leg is in motion.

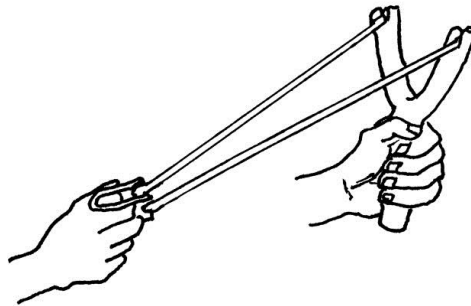


The boy, the ball, and the dogs are using kinetic energy.

**potential energy** [poh•TEN•shuhl EN•er•jee] the energy something has because of its position or condition. Roller coaster cars at the top of a hill have potential energy.

*Potential* and *possible* begin with the same sounds. Something that is *potential* is possible.

*Potential energy* is possible energy, energy ready to be used at some future time.



The stretched rubber band of this slingshot has potential energy.

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**mechanical energy** [muh•KAN•ih•kuhl EN•er•jee] the total potential energy and kinetic energy of an object

*Mechanical* and *math* begin with the same sound. Here is the math of *mechanical energy*: If you add potential energy and kinetic energy, you get *mechanical energy*.  
potential energy + kinetic energy = *mechanical energy*

**chemical energy** [KEM•ih•kuhl EN•er•jee] energy that can be released by a chemical change

Burning a wood log is a chemical change because the wood changes to smoke and ash, new matter. If you stand near a fire, you know that burning also gives off heat. The heat is *chemical energy* because it is given off during a chemical change.

**electrical energy** [uh•LEK•trik•uhl EN•er•jee] energy that comes from electrical current

*Electrical* and *electricity* sound almost alike. *Electrical energy* is electricity.

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## Science Concepts

**Read the Ideas more than once. Do your best to remember them.**

1. Energy is the ability to make matter change.
2. Something in motion, such as a rabbit hopping up and down, has kinetic energy.
3. Potential energy is energy that something has because of where it is or what condition it is in.
4. A ball on a shelf has potential energy because of where it is.
5. A spring wound tight has potential energy because of its condition—being wound tight.
6. Mechanical energy is the total of an object's potential and kinetic energy.
7. Sound energy is caused by vibration, a back-and-forth motion.
8. The sun and electricity are both sources of light energy.
9. Chemical energy, which is given off by a chemical change, is the energy we get from food.
10. Electrical energy powers our computers, televisions, and machines.