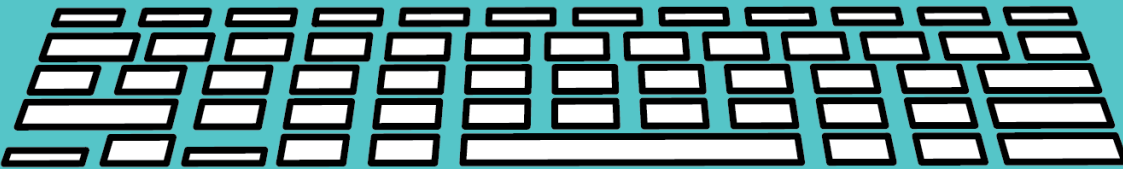
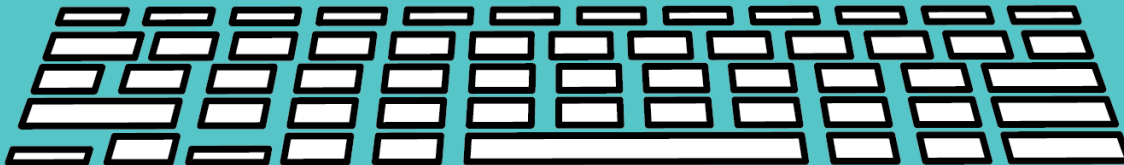


WATER IS THE
MOST
COMMONLY
USED SOURCE
OF RENEWABLE
ENERGY

Short Answer	Type Answer Here
1. What word is used for stored energy?	
2. What is heat energy also called?	
3. What energy is caused by a vibrating object?	
4. Photosynthesis is an example of what kind of energy?	
5. What energy is found within the nucleus of an atom?	
6. A bow and arrow is an example of what kind of energy?	
7. What energy refers to an object related to another object?	
8. Lightning is an example of what kind of energy?	



Short Answer	Type Answer Here	Fill in the Blank	Type Answer Here
1. What word is used for stored energy?		9. ___ is the ability to do work.	
2. What is heat energy also called?		10. ___ energy is also called motion energy.	
3. What energy is caused by a vibrating object?		11. Sound energy moves ___ than light energy.	
4. Photosynthesis is an example of what kind of energy?		12. Different wavelengths of ___ energy are called	
5. What energy is found within the nucleus of an atom?		13. gamma rays have very small wavelength	
6. A bow and arrow is an example of what kind of energy?		14. Kinetic energy depends on the object's mass and ___	
7. What energy refers to an object related to another object?		15. The 2 main categories of energy are potential and ___	
8. Lightning is an example of what kind of energy?		16. A stick of dynamite is an example of ___ energy.	



TYPES OF ENERGY

How do plants grow? How do things grow? How does a machine work? The answer is ENERGY. Energy is the ability to do work. For instance, energy is required to cook food, jump over a fence, or drive a car.

There are two types of energy. They fall into two major categories: potential energy. Potential energy is stored energy. A spring, a stick of dynamite, and a bungee tower are examples of potential energy. Additionally, a roller coaster stores potential energy as it climbs a hill. As the roller coaster falls down the hill, the potential energy turns into kinetic energy.

Kinetic energy is moving energy, also called motion energy. Examples of kinetic energy include:

- A golf ball mid-swing
- An asteroid in outer space
- A person walking down the street

A roller coaster will alternate back and forth between kinetic and potential energy throughout the ride. Kinetic energy depends on the object's mass and velocity. For instance, a golf ball travels faster than a ping ball due to its mass.

Electrical energy is a form of kinetic energy. We use electrical energy every single day. Some examples include flipping on lights in the house, watching television, playing computer games, and charging a cell phone. Particles and electrons move from one atom to another, creating electrical energy. The sun, wind, coal, and even animal poop can be converted into electrical energy. You can see electrical energy in nature in the form of lightning during a storm.

Heat energy, also called thermal energy, comes from the sun. With heat energy, molecules with varying temperatures interact. Like electrical energy, heat energy can be generated from other sources like plant and animal products, fossil fuels, the sun, and from within the earth.

Light energy, also called radiant or electromagnetic energy, moves through space and air. Light energy is kinetic energy that comes from natural and manufactured sources. Electromagnetic radiation moves in waves in a straight path. Light energy includes visible light, infrared waves, X-rays,

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ultraviolet light, gamma rays, radio waves, and microwaves. Different wavelengths of light energy are colors. For example, radio waves have very long wavelengths, while gamma and cosmic waves have very small wavelengths. Our eyes can see the light waves in the middle of the spectrum.

Sound energy is kinetic energy caused by a vibrating object. Sound energy can be heard. The hum of a fan, the sound of the bat hitting the ball, and even your heart beating are all examples of sound energy. Sound energy travels through a substance like air, water, or an object. Because it travels through something, it moves slower than light energy does. Have you ever tried to talk to someone underwater? You can't quite understand as you would outside of the pool. Why? Because the sound waves are moving through water, which slows the waves down.

Chemical energy is stored energy, similar to potential energy. Chemical energy comes from the bonds between atoms and molecules. Examples of chemical energy include gasoline, batteries, photosynthesis, food, ice packs, and warmers. Chemical energy has exothermic and endothermic reactions. Exothermic reactions (hand warmers) release more energy than they absorb. Endothermic reactions (ice packs) store and absorb more energy than they release.

Mechanical energy comes from an object and its position or motion. A bow and arrow is an example of mechanical energy. For instance, a drawn bow stores potential energy. When the bow releases, the energy transforms into kinetic energy. This mechanical energy can be both potential or kinetic. Nuclear energy is a form of potential energy found within the nucleus of an atom. As potential nuclear energy releases, thermal energy is produced. In a nuclear power plant, thermal energy is used to generate steam, turn turbines, and produce electrical energy.

Potential energy is potential energy that is stored. Usually, gravitational energy refers to an object relative to another object. For instance, the earth and sun have gravitational energy. Gravitational energy turns into kinetic energy when objects fall toward each other. Gravitational energy of a water balloon varies depending on how high it is. If it falls on someone's arm, it will have much less impact than if it falls on someone's head.

Conserving energy is essential. The sun and wind are renewable. An important first step is to turn lights and equipment off when not in use. Also, purchasing energy-efficient appliances for your home can help save energy and money.

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THE VIDEO TO
SEE HOW THIS
PRODUCT WORKS**