

Classifying Energy

Directions: Have students classify energy as either potential or kinetic, explain and give examples.

Example:

Energy Form	Potential or Kinetic?	Explanation	Sources
Sound	kinetic	Sound is a type of kinetic energy because it is caused by the vibration – or movement - of an object.	a vibrating guitar string, vocal cords

Nuclear Energy

Nuclear energy is stored energy that holds the nucleus of an atom together. If the nucleus of an atom is split or fused with another atom, this releases huge amounts of energy. The sun and uranium both possess nuclear energy.



Sound Energy

Sound occurs when energy travels through substances like air or water and causes them to vibrate in waves. For example, sound occurs when air moving past your vocal cords causes vibrations or the string of a guitar is plucked and starts to vibrate.



Chemical Energy

Chemical energy is energy that is stored in the bonds between atoms or molecules. Food is made of chemicals that store energy. So are gasoline, coal, and plants.



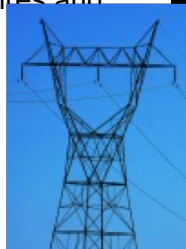
Gravitational Energy

Gravitational energy is stored energy that an object has because of its height above the earth. More height and more mass increase the gravitational energy of an object. A ball thrown into the air or water at the top of a mountain both have this type of energy.



Electrical Energy

Electrical energy is the energy of charged particles called electrons. This energy can move through wires and other materials that conduct electricity, or it can move on its own (for example, as lightning).



Heat Energy

Heat (thermal) energy is the movement of the atoms and molecules in a substance. As something heats up, this movement increases. Heat energy can be emitted by the sun, fire, the earth's core, and friction caused by movement.



Light Energy

Light energy is a type of energy that travels in waves. Sunshine, fire, and lightbulbs all emit light. Radiant energy is another name for light energy.



Motion Energy

Motion energy is the energy that a moving object has. Wind, running water and a rubber band shooting through the air all possess the energy of movement. The faster they go, the more energy they have!



An Introduction to Biomass



Water Buffalo Dung (waste)
Photo by Christie Heyer



Trash
Photo by Norman D'Arcy



Corn Husk

Photo by snebtor



Wood

Photo by Christie Heyer

Answer Key: Classifying Energy

Energy Form	Potential or Kinetic?	Explanation	Sources
sound	kinetic	Sound is a type of kinetic energy because it is caused by the vibration – or movement - of an object.	a vibrating guitar string, vocal cords
chemical	potential	Chemical energy describes energy that is <u>stored</u> in the bonds between atoms.	Gasoline, Coal, Plants
electrical	kinetic	The <u>movement</u> of electrons produces electricity.	Lightning
heat	kinetic	Heat describes the <u>movement</u> of the atoms and molecules of a substance.	Sun, Fire, the earth's core
light	kinetic	Light is a type of energy that <u>travels</u> in waves.	Sun, fire, lightbulbs

motion	kinetic	Since kinetic energy is described as the energy of motion, then objects or systems in <u>motion</u> are definitely a form of kinetic energy!	Wind, running water, shooting rubber band
nuclear	potential	Nuclear energy is energy that is <u>stored</u> within an atom's nucleus.	Uranium, the sun
gravitational	potential	Gravitational energy is energy that an object or system has, or is <u>stored</u> , because of its position.	Water at the top of a mountain, ball thrown in the air