

# Forms of Energy Graphic Organizer

E.Q. "How do the different forms of energy compare?" S8P2(c)

- What is Energy? The ability to do work and/or cause change.
- Unit: Joules
- Energy moves in waves. Waves are caused by vibrations.
- Energy can change from one form to another without losing or gaining mass (Law of Conservation of Mass).
- Heat is a **byproduct** of almost all changes in forms of energy.

Types of Energy: There are two (2) **types** of energy.

Potential Energy: Stored energy	Kinetic Energy: Energy in motion.
<b>There are 7 Forms of Energy</b>	
<p>Chemical energy is stored in the bonds of molecules.</p> <p>Examples: food, fuel, battery</p>	<p>Mechanical energy is the total energy object. It is the combined potential and kinetic of an object.</p> <p>Examples: Anything in motion has Mechanical energy.</p>
<p>Nuclear energy is stored in the nucleus of atoms. Two ways to release nuclear energy:</p> <p>Fission – split atom (nuclear power plant) Fusion – joining atoms (hydrogen in the sun)</p> <p>Examples: sun, nuclear bomb</p>	<p>Electrical Energy: caused by movement of electrons. A battery creates electrical energy by releasing it's stored chemical energy.</p> <p>Examples: Any object with a plug, Wiring, or circuit board uses electrical energy.</p>

Forms of Energy	Forms of Energy
	<p data-bbox="818 176 1317 302">Electromagnetic Energy: (visible Light) is caused by the movement Of electrically charged particles.</p> <p data-bbox="818 352 1382 436">Light is a wave that can move through Space.</p> <p data-bbox="818 529 1276 613">Examples: light bulb, computer Screen</p>
<p data-bbox="136 777 743 919">When you pull back a guitar string, you give the string the potential to make a sound.</p>	<p data-bbox="818 726 1442 852">Sound Energy: is caused by vibrations of air. Sound cannot exist in space. It must have a medium to vibrate through.</p> <p data-bbox="818 911 1203 953"><u>Both potential and kinetic</u></p> <p data-bbox="818 1003 1446 1045">Examples: radio, vocal cords, guitar string</p>
	<p data-bbox="818 1293 1321 1377">Thermal Energy (heat): caused by Movement of particles.</p> <p data-bbox="818 1428 1338 1512">Heat moves from warmer to cooler Object.</p> <p data-bbox="818 1562 1321 1604">Example: heater, stove, light bulb</p> <p data-bbox="818 1654 1122 1696">Heat is a byproduct.</p>

