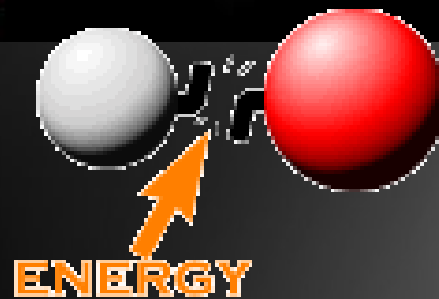
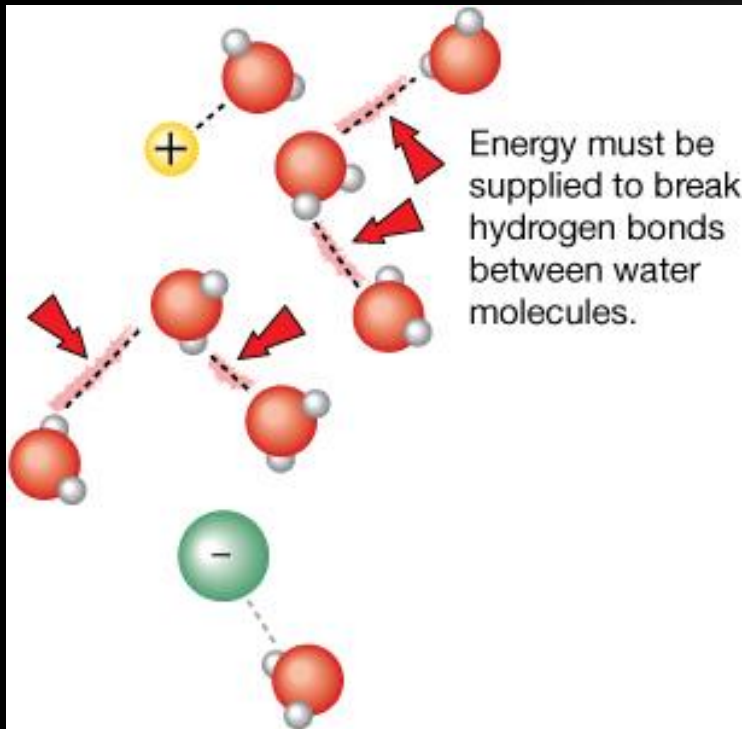


Energy & Reactions



- For atoms to react, bonds have to be broken.
- This takes **energy**. (activation energy)



Many forms of energy can be used to break bonds.

Energy can be transferred as....



Heat energy-a form of energy associated with the movement of atoms and molecules in any material

Ex. Hand warmers



Light Energy- Energy in the form of waves

Ex. Glow Sticks



Sound Energy- a form of energy that is associated with vibrations of matter.

Ex. Fireworks



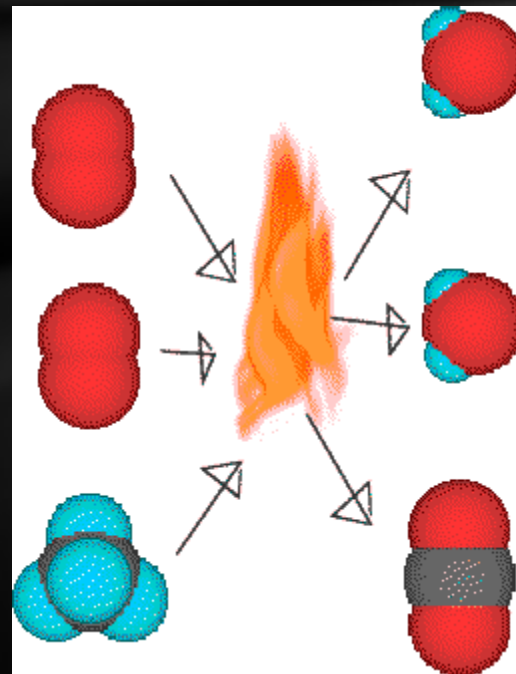
Electricity-a form of energy
resulting from the existence of charged
particles

Ex. Batteries



Chemical Energy

The energy released when a chemical compound reacts to produce new compounds.



Exothermic

- More energy is released when the product forms than it takes to break the bonds in the reactants.
- Energy is Released
- It gets Hotter



Endothermic

- More energy is needed to break the bonds in the reactants than is given off by forming bonds in the products.
- Energy is Absorbed
- It Gets Colder

