

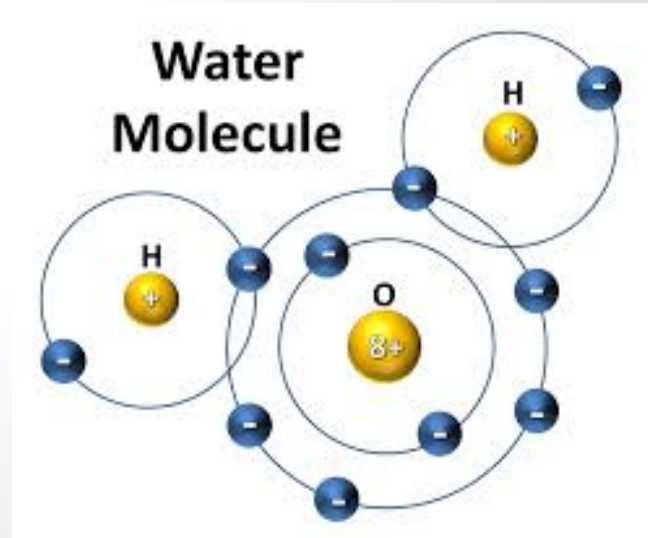
Chemical Potential Energy



Chemical Energy

Chemical Energy is energy stored in the bonds of chemical compounds (atoms and molecules).

Therefore, all objects have chemical potential energy because all objects are made up of atoms and molecules.



Chemical Energy

An object's chemical potential energy is released during a chemical reaction due to the bond between atoms weakening and breaking.

- * This process usually transforms a substance into an entirely new substance and/or converts some of the energy into heat, sound, light or mechanical energy.

Example



When a firework goes off, chemical energy stored in it is transferred to the surroundings as thermal energy, sound energy and light energy.

Example



The dry wood is a store of chemical energy. As it burns in the fireplace, chemical energy is released and converted to thermal and light energy. Notice the wood is also a new substance, ash.

Chemical Reaction/Potential Examples

1. Match
2. Steel Wool
3. Alka Seltzer and film canister
4. Axe Cannon
5. [Elephant Toothpaste](#)

Recap

All objects have chemical potential energy due to having _____ and _____.

You can tell that an object released its potential energy because some of the energy might be converted to _____, _____, _____ or _____ energy.

In some cases substances may also be transformed into new substances.

Electrical Potential Energy

An atom can gain or build electrical potential energy by gaining electrons or increasing the flow of electrons.

