### **Energy Transformations**

Mr. G. Martinez 8<sup>th</sup> Grade Science

**TEKS 6.8 (C)** 

#### Energy

The ability to do work or create a change on the position or the motion of an object

## Law of Conservation of Energy

# Energy cannot be created nor destroyed, it can only be changed from one form to another

#### **Energy Transformation**

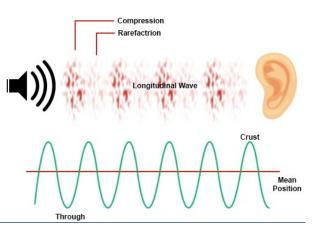
### When energy changes from one form into another

#### Sound Energy

Energy created by sound waves traveling through a medium such as air, water,

and soil

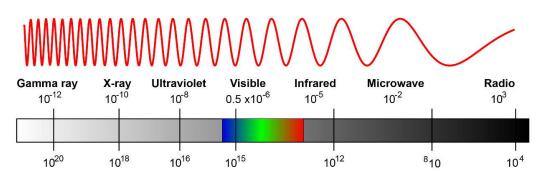
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#### Radiant Energy

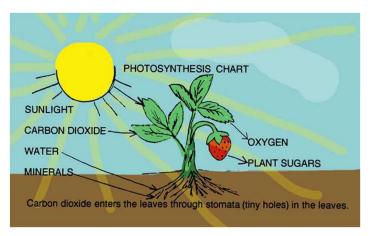
# Energy of light waves traveling through a medium. Also known as electromagnetic waves





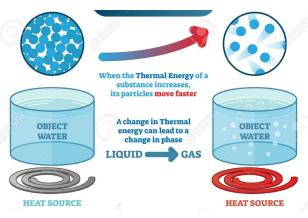
#### Photosynthesis

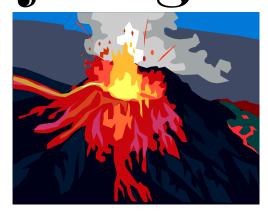
# When <u>Radian</u> energy (<u>light</u>) is <u>changed</u> into <u>Chemical</u> energy (sugar) in the leaf of a plant



#### Thermal Energy

Energy created by vibrating molecules in objects producing heat. The faster the vibration, the hotter the object gets





#### Electrical Energy

Energy of charged particles (electrons) moving through a conductor (wire) as electrical current



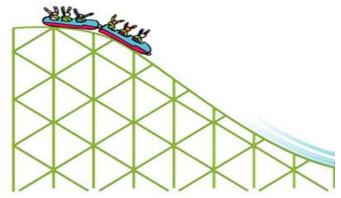


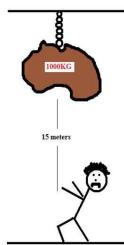
#### Mechanical Energy

# The <u>combination</u> of all <u>Potential</u> and <u>Kinetic</u> Energies used on <u>moving objects</u> when doing <u>work</u>

#### Gravitational Energy

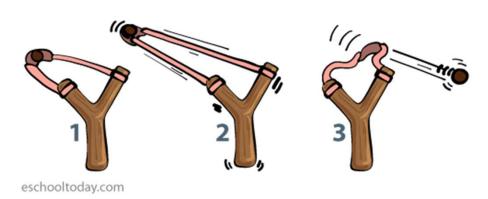
## Potential energy stored in objects due to their elevation and mass

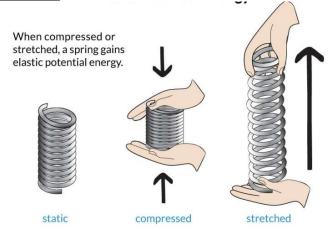




#### Elastic Energy

## Potential energy in <u>objects</u> that are <u>stretched</u> or <u>compressed</u>.



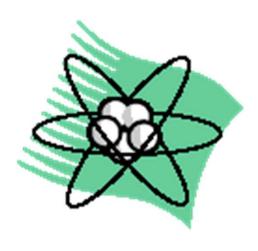


#### Nuclear Energy

### A type of potential <u>energy</u> stored in the <u>nucleus</u> of <u>atoms</u>



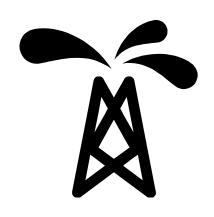




#### Chemical Energy

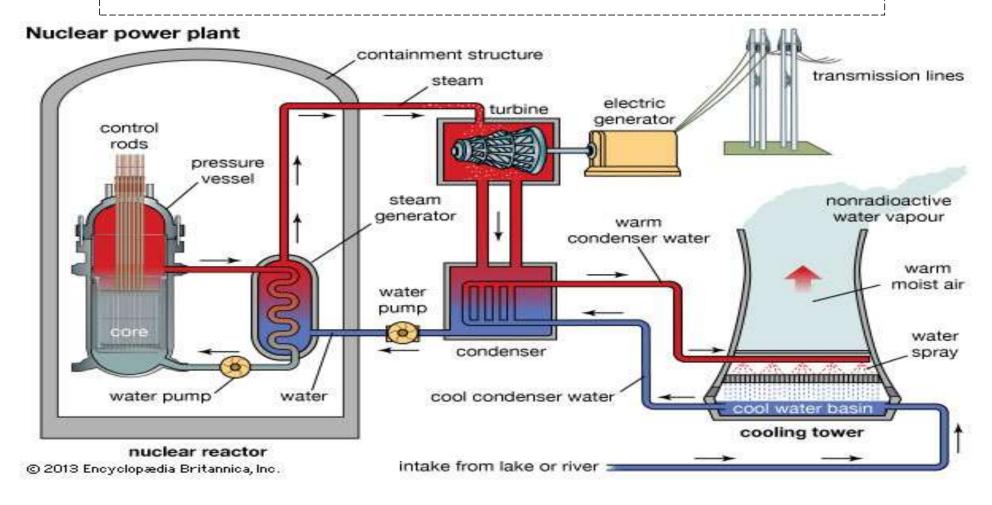
## Energy stored in chemical bonds (fossil-fuels, food, batteries and photosynthesis)







#### Nuclear Energy



#### Photosynthesis

