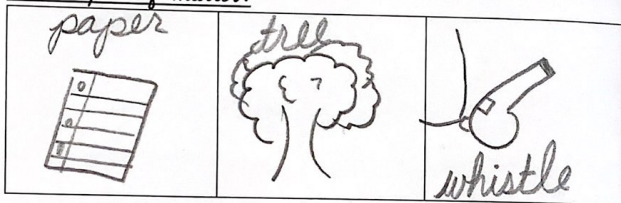


Energy and Matter

Energy is the ability to cause change

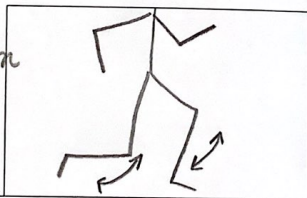
Matter is anything that takes up space

3 examples of matter:

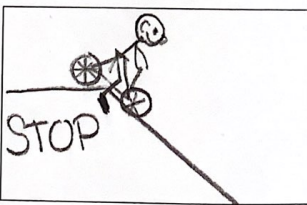


Kinetic Energy is the energy of motion

"moving"



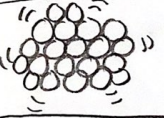
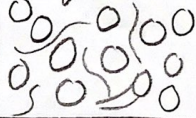
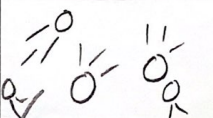
Potential Energy is stored energy that's ready to go because of its position



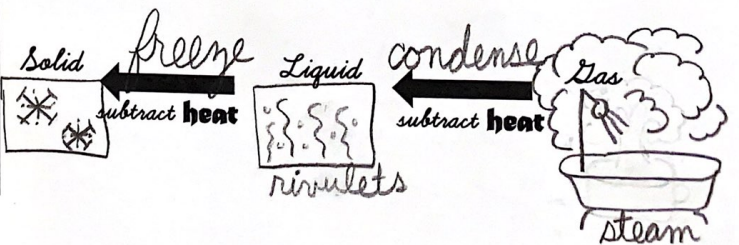
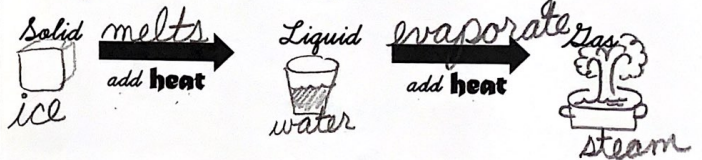
Thermal Energy

Thermal Energy is energy of moving particles/atoms in matter

3 states of matter:

Solid	Liquid	Gas
		
vibrate	slide	bounce

low medium high

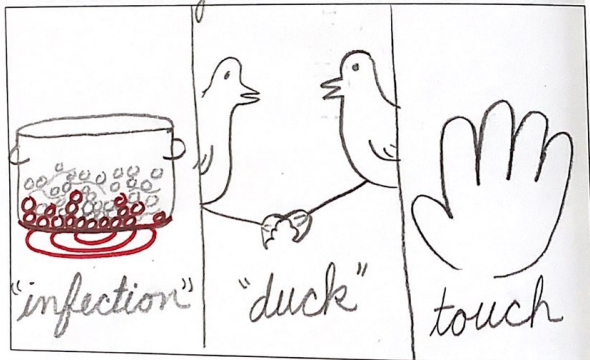


Thermal Energy Moves

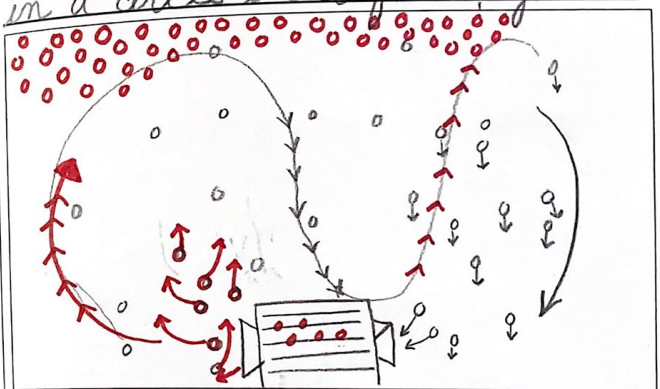
Heat is _____

3 ways thermal energy moves is:
conduction convection radiation

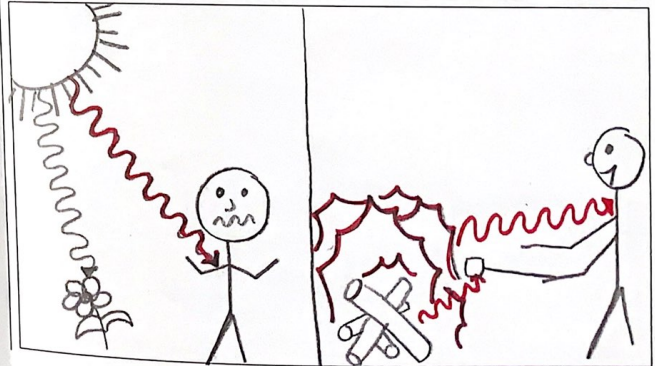
Conduction is the transfer of energy when things touch



Convection is the rise & fall of energy in a circle in liquid & gas

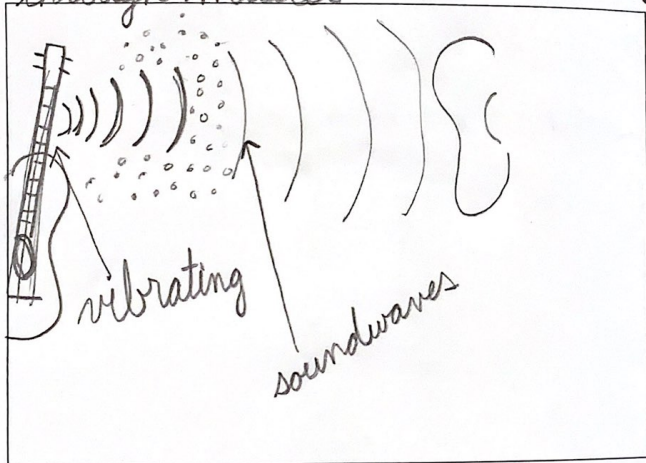


Radiation is the transfer of energy that travels in waves



How Sound is Made

Soundwaves are the back-and-forth patterns caused by energy pushing through matter.

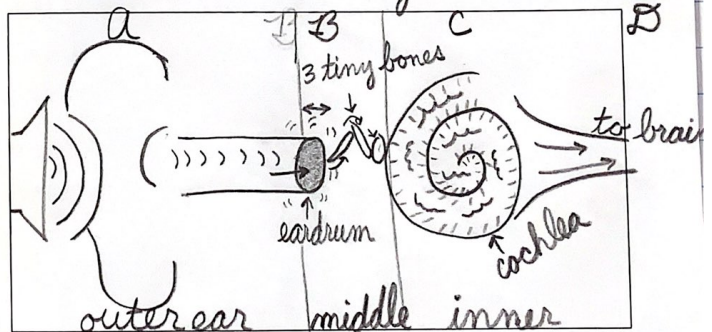


Sound is made when vibrations spread out in all directions. These soundwaves push through matter. They end in someone's ear.

How We Hear Sound

a. Soundwaves travel to the outer ear and then go down the canal.

b. Soundwaves hit the eardrum and make it vibrate. It then vibrates the 3 tiny bones.



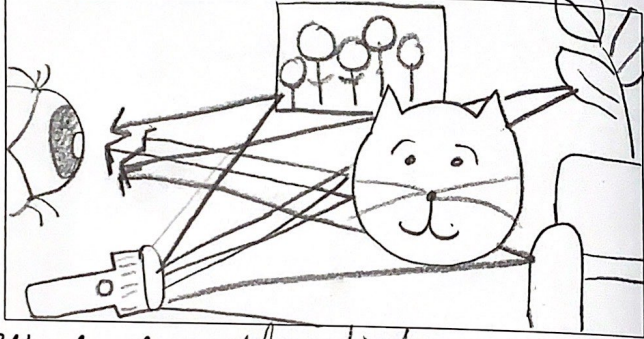
c. 3 tiny bones hit the cochlea and the water inside moves the hair

d. the cochlea sends a signal to the brain to determine the sound

Light & Light waves

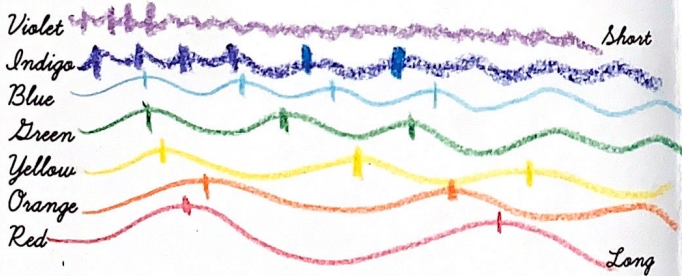
Light waves are up-and-down waves that travel in a straight line

How light helps me see



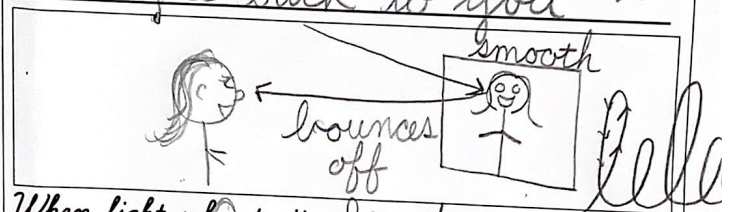
Wavelengths are the distance between the crests & troughs

Every wavelength has a different color

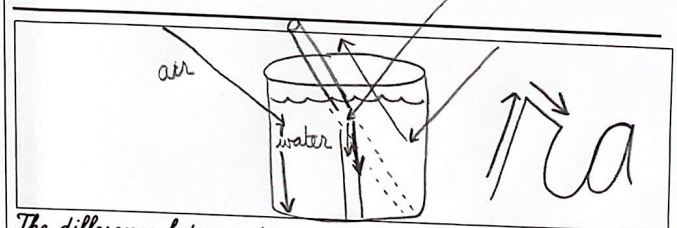


What Light Does

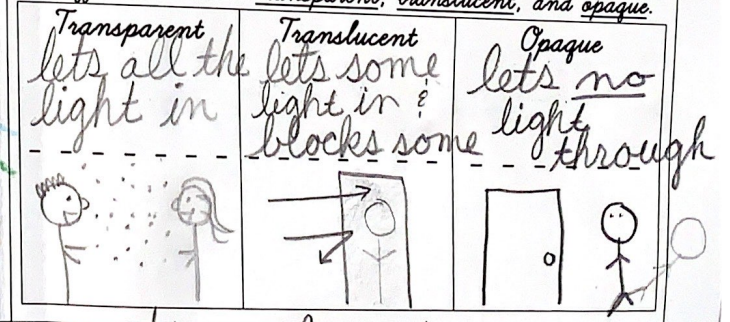
When light reflects it bounces off straight back to you



When light refracts it bends



The difference between transparent, translucent, and opaque.



parents = know all

lucent = block