**Color and Light**

**Light is a transverse wave that travels both up and down and forward simultaneously.**

**Example:**

Dir. Of particles

Direction of wave

Visible light is light that we can see and it is made of some or all of the colors (ROYGBIV) of the rainbow.

**Visible light is just a fraction of all of the kinds of light that exists (called the electro magnetic spectrum). Examples of light that we can’t see: radio waves, microwaves, gamma rays, beta rays and ultra violet rays.**

**Colors are seen because objects that we see absorb all of the visible light that we see besides the color (except black) that the object reflects back to our eyes.**

**For example: stop signs are red because the red dye in the paint absorbs all of the visible light besides red.**

**The color black is seen because black objects absorb all visible light. White objects reflect all visible light.**

**Objects that are black heat up faster because they absorb more light than white objects.**