Assignment: 5

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour:\_\_\_\_

**What are some things that can happen to waves?**

**Reflection** – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a wave after it \_\_\_\_ a \_\_\_\_\_\_\_\_\_\_\_\_\_

**Law of Reflection**: the angle of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = angle of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ (waves always reflect off an object at the \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ they hit it)



**Diffraction** - \_\_\_\_\_\_\_\_\_\_\_\_\_ out of waves as they go through a \_\_\_\_\_\_\_ or around a \_\_\_\_\_\_\_\_\_\_\_\_\_

**Refraction** – \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of waves, waves can get bent as they enter \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (new \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = new \_\_\_\_\_\_\_\_\_\_\_\_ = new \_\_\_\_\_\_\_\_\_\_\_\_)

**Resonance** – the prolonging of a sound by several of \_\_\_\_\_\_\_\_\_\_ all \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at the \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Interference** – the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of one wave with another wave

**Constructive Interference** (**\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reinforcement**) – this is when two waves have the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and are moving in the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, they \_\_\_\_\_\_ to one another and create a wave that has a bigger \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Interference** (**Negative reinforcement**) – this is when two waves have the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and are moving in the same \_\_\_\_\_\_\_\_\_\_\_\_, but the waves cycles are \_\_\_\_\_\_\_\_\_\_\_\_\_ one another, they \_\_\_\_\_\_\_\_\_\_\_\_\_ one another out
 - This is how many of our noise canceling devices work

**Doppler Effect**: \_\_\_\_\_\_\_\_\_ getting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as sound travels \_\_\_\_\_\_\_\_\_\_\_\_\_\_ a \_\_\_\_\_\_\_\_\_\_\_\_ and pitch getting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as a sound source travels \_\_\_\_\_\_\_\_\_\_ from a listener

Think of it this way, if a bug is in the water and wiggles…

Ok, but what if the bug is moving at the same time toward one side?

Ok so what does this mean for us… think of an ambulance going past you…