Academic Earth Science

September 21, Thursday: B Day

* You will need your agenda and attached notes from last class

**WARM-UPS:**

1. **Review ExC-ELL vocabulary activity: Electromagnetic & Visible Light Spectra**
2. **Check the HW worksheet**

**OBJECTIVES:**

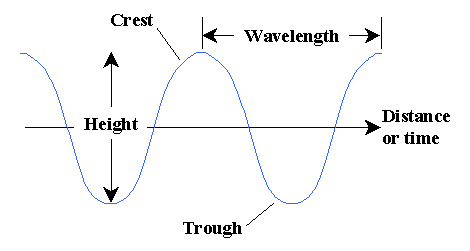
1. Complete the notes on the Electromagnetic and Visible Light Spectra
   1. **Partner Reading – take your notes.** Choose a partner (can be group of 3 IF we have an odd number of students)
   2. **Alternate reading the notes:** Each student reads a sentence – followed by your partner on the next sentence
      1. **Summarize the notes you just read**

**HOMEWORK:**

1. COMPLETE the electromagnetic spectrum worksheet
2. Re-read your notes on the 3 types of visible light spectra
   1. Be sure you answered the questions!
3. Read the attached information on the Big Bang Theory (astronomy, NOT TV!)

Electromagnetic Spectrum

1. Electromagnetic Spectrum:
   1. All forms of Radiant Energy
   2. Emissions (energy) from Stars in the form of WAVES
   3. Produced by Fusion (thermonuclear reaction: Hydrogen is fused to form Helium in the core of stars)
   4. Each Wavelength (λ = lambda) is a different type of radiant Energy
   5. WAVES:



Radio Waves **longest λ**

Microwaves

Infra Red

Red **longest λ (visible light)**

Orange

Visible Light Yellow

Green

Blue

Violet **shortest λ (visible light)**

Ultra Violet

X-rays

Gamma rays **shortest λ**

1. **Hot bodies (stars)** emit mostly shorter wave radiations (UV, X-ray, Visible light)
2. **Cool bodies (planets)** emit mostly long wave radiation (IR = ‘heat’ wave)

