

Light and Optics

Light is Weird

- light is a form of \_\_\_\_\_ visible to the human eye
- light does not need a \_\_\_\_\_ to travel
- light sometimes displays properties of \_\_\_\_\_ and sometimes displays properties of \_\_\_\_\_
- light travels at \_\_\_\_\_
- light takes \_\_\_\_\_ minutes to reach the Earth
- light travels in \_\_\_\_\_ lines if travelling in the same medium
- life on Earth would not exist without \_\_\_\_\_

The Electromagnetic Spectrum

- an electromagnetic wave is a wave that has both \_\_\_\_\_ and \_\_\_\_\_ parts, does not require a medium, and travels at the speed of light
- there are many different types of waves
  - i.e. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- visible light is an \_\_\_\_\_ wave that the human eye can detect

Visible Light and the Spectrum

- \_\_\_\_\_ is composed of all the colours of the \_\_\_\_\_
- ROYGBIV
  - \_\_\_\_\_
- a \_\_\_\_\_ is capable of separating colours because each colour travels through the prism at a slightly different \_\_\_\_\_

Why We See Things

We see things because light hits our eyes from all \_\_\_\_\_.

Luminous

- \_\_\_\_\_
- \_\_\_\_\_

Non-luminous

- \_\_\_\_\_
- \_\_\_\_\_

Sources of Light – Natural

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Sources of Light – Electric Powered

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Sources of Light – Combustion

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Sources of Light – Chemical

- chemiluminescence
  - light produced by a chemical reaction
  - i.e. \_\_\_\_\_
- bioluminescence
  - light produced by a living thing
  - i.e. \_\_\_\_\_
- phosphorescence
  - light produced for some time after receiving energy from another source
  - i.e. \_\_\_\_\_
- fluorescence
  - light produced while receiving energy from another source
  - i.e. \_\_\_\_\_