loreescience

Properties of Light & The Electromagnetic Spectrum Activities

1. The speed of light

- Watch the Speed of Light video on **EdPuzzle** & calculate the speed of light using chocolate:
  - Frequency of microwave =
  - Wavelength =
  - Speed of light ≈
- Where does light actually travel at 3.0×10^8 m/s?

- Why isn't the speed of light actually constant on Earth?

2. Straight Lines

- **Explain** using <u>diagrams</u> how light travelling in straight lines prevents us from seeing around corners.

3. Light radiates in all direction

- If luminous objects radiate light in all directions why do flashlights produce a beam of light?
  HINT: Look inside one

- **Use diagrams to compare** the light from a flashlight to a candle.

4. Radiation

- Watch the Radiation video on **EdPuzzle** & answer the following questions:
  - When is radiation useful in terms of energy transfer?

  - What about convection and conduction?

  - What is different between these types of energy transfer?

5. Light as Waves

- **Mix & match** (cut outs provided) the type of electromagnetic wave with its uses & phenomena.
  Take a picture with your name included in it & put it in **Edsby** (Light as Wave Activity), then **<u>delete</u>** your picture from the iPad.

- Watch the video on **EdPuzzle** & **demonstrate** wave properties (wavelength, amplitude, frequency) using a **slinky** – demonstrate this for a completion mark. (Light as waves VIDEO).