The Hermitage School – Science

Topic: Light	Year: 3	Spring 2

What should I already know?
- Why we need light and why it is important.
- The name of several types of light e.g.: sun, light bulb, candle.

What will I know by the end?
- We need light in order to see things.
- Dark is the absence of light.
- There are natural and man-made sources of light.
- Light is reflected from surfaces.
- Light from the sun can be dangerous.
- Shadows form when light is blocked by opaque objects and can change size.
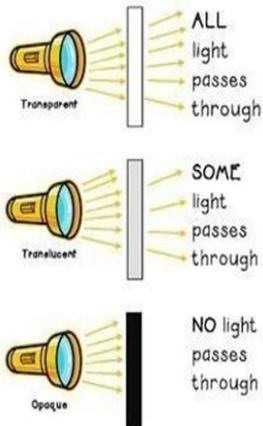
Scientific Skills and Enquiry
- Asking relevant questions.
- To identify and classify different sources of light.
- Gathering, recording and presenting data
- Using results to draw simple conclusions
- Reporting on findings from enquiries – sharing experiences.
- Making systematic and careful observations.

Vocabulary
Light source: An object that produces its own light e.g. sun, fire, torch.
Opaque object: An object which does not allow light to pass through it e.g. wood.
Reflection: When a light hits a surface and bounces off.
Refraction: When light passes through a different object and its direction changes.
Retina: At the back of your eye, containing light-sensitive cells. When you look at something, light hits the retina and sends signals to the brain to interpret what you see.
Shadow: A dark area or shape caused by the blockage of light.
Spectrum: A range of colours caused when white light is refracted – eg rainbow.
Sunlight: The light and energy from the Sun. Its scientific name is **solar radiation**.
Translucent: An object which allows some light to pass through.
Transparent: An object which allows light to pass through.
UV Rays: Waves of light that come from the Sun – they can be harmful to us.

Translucent, Transparent & Opaque

Transparent – ALL light passes through
Translucent – SOME light passes through
Opaque – NO light passes through

Sources of Light can be natural or man-made

As the **light source** moves **higher** in relation to the **object**, the **shadow** gets **shorter**. As the **light source** moves **lower**, the **shadow** gets **longer**.