Year 6 Knowledge Organiser: Light and Shadows: The Eye.

What is light?
Light is electromagnetic radiation

How do we see?
We see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.
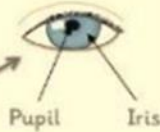
Light rays travel from the light source.

Light reflects off object.

Light from object travels into the eye.

Pupil   Iris

Objects are seen because they give out or reflect light into the eye.

Light travels in straight lines. Once light has been produced, it will keep travelling in a straight line until it hits something else. Shadows are evidence of light travelling in straight lines. An object blocks light so that it can't reach the surface where we see the shadow.

When light travels from air through water, glass or anything that lets light through, it gets bent. This bending is called refraction.

How do we see colour?

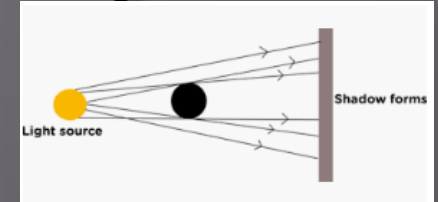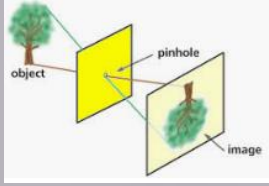Red colour reflected

White light

Other colours absorbed.

ROYGBIV

The colors of the visible spectrum include red, orange, yellow, green, blue, indigo, and violet.

Light and Shadows: The Eye- Vocabulary.

Light: Light is an electromagnetic wave that can be seen by the typical human.

Reflect: When light from an object is reflected by a surface, it changes direction. It bounces off the surface at the same angle as it hits it.

Refraction: When light travels from air through water, glass or anything that lets light through, it gets bent. This bending is called refraction.

Colour Spectrum: The visible spectrum is always the same for a rainbow or the separated light from a prism. The order of colours is red, orange, yellow, green, blue, indigo, and violet.

Shadow: Shadows are formed when light from a source is blocked by an opaque object. The closer an object is to the source of light the bigger the shadow.

Absorb: When energy is taken in.

Light source: A source of light makes light. The Sun and other stars, fires, torches and lamps all make their own light and so are examples of sources of light.

Light and Shadows: The Eye- Vocabulary

Light	Prism	Transparent
Source	Measure	Rainbow
Reflection	Invert	Colour
Refraction	Height	Travelling
Image	Distance	Surface
Absorb	Shadow	Evidence
Spectrum	Opaque	Angle
Straight	Translucent	Direction