Year 6: Light - Reflection and Colours in White Light

Subject Specific Vocabulary

light	A form of energy that travels in a wave from a source.
light source	An object that makes its own light.
reflection	Reflection is when light bounces off a surface, changing the direction of a ray of light.
incident ray	A ray of light that hits a surface.
reflected ray	A ray of light that has bounced back after hitting a surface.
law of reflection	The law states that the angle of the incident ray is equal to the angle of the reflected ray.
refraction	This is when light bends as it passes from one medium to another, eg light bends when it moves from air into water.
visible spectrum	Light that is visible to the human eye. It is made up of a colour spectrum.
prism	A prism is a solid 3D shape with flat sides. The two ends are an equal shape and size. A transparent prism separates out visible light into all the colours of the spectrum.
shadow	An area of darkness where light has been blocked.
transparent	Describes objects that let light travel through them easily, meaning you can see through the object.
translucent	Describes objects that let some light through, but scatters the light so we can't see through them properly.
opaque	Describes objects that do not let any light pass through them.

Learning Link Back

- Recognising that light from the sun can be dangerous and that there are ways to protect their eyes.
- Noticing that light is reflected from surfaces.
- Recognising that shadows are formed when the light from a light source is blocked by an opaque object.
- Finding patterns in the way the size of shadows change

Light bend when it moves from air to water. When light bends in this way it is called refraction.

Sticky Knowledge

We need light to be able to see things. Light travel out from the source of light in straight lines. These lines are often called rays or beams of a light.

Light from the sun travels in a straight line.

A shadow is always the same shape as the object that cast it. This is because when an opaque object in the path of the light travelling from a light source, it will block the light rays that hit it, while the rest of the light can continue travelling .

Shadows can also be elongated or shortened depending on the angle of the light source. A shadow is larger when it is closer to the light source . This is because it blocks more of the light.

Isaac Newton shone a light through a transparent prism, separating out light into colours of the rainbow (red, orang, yellow, green, blue, indigo and violet) -the colours of the spectrum. All the colours merge to make visible light.