

Lesson	Know	Apply	Extend
4.2.1 Light	I can describe some ways that light interacts with materials. <input type="checkbox"/>	I can describe what happens when light interacts with materials. <input type="checkbox"/>	I can predict how light will interact with different materials. <input type="checkbox"/>
	I can state the speed of light. <input type="checkbox"/>	I can explain how ray diagrams can explain the formation of shadows. <input type="checkbox"/>	I can use ray diagrams to explain what observers see during an eclipse. <input type="checkbox"/>
	I can state the positions of the Earth, Moon, and Sun during a solar eclipse. <input type="checkbox"/>	I can use ray diagrams to describe what observers see during an eclipse. <input type="checkbox"/>	
4.2.2 Reflection	I can, with guidance, construct ray diagrams to show how light reflects off mirrors and forms images. <input type="checkbox"/>	I can explain how images are formed in a plane mirror using a ray diagram. <input type="checkbox"/>	I can use a ray diagram to explain how an image in a mirror changes as you move the mirror/object, or to explain the formation of images in multiple mirrors. <input type="checkbox"/>
	I can identify examples of specular and diffuse reflection. <input type="checkbox"/>	I can explain the difference between specular and diffuse reflection. <input type="checkbox"/>	I can predict how light will reflect from different types of surface. <input type="checkbox"/>
	I can use appropriate equipment safely with guidance. <input type="checkbox"/>	I can use appropriate equipment and take readings safely without help. <input type="checkbox"/>	I can take accurate readings using appropriate equipment and working safely. <input type="checkbox"/>
4.2.3 Refraction	I can describe what happens when light is refracted. <input type="checkbox"/>	I can use a ray diagram to describe how light travels through a transparent block. <input type="checkbox"/>	I can predict whether light will refract when it hits a hard surface. <input type="checkbox"/>
	I can state a difference between what happens to light when it goes through a convex lens and a concave lens. <input type="checkbox"/>	I can use a ray diagram to describe what happens when light travels through a convex or concave lens. <input type="checkbox"/>	I can draw ray diagrams to show what happens when light goes through a convex or concave lens. <input type="checkbox"/>

Lesson	Know	Apply	Extend
	I can record some observations as a diagram with help. <input type="checkbox"/>	I can record observations using a labelled diagram. <input type="checkbox"/>	I can record observations using labelled diagrams, and apply this to other situations. <input type="checkbox"/>
4.2.4 The eye and vision	I can name parts of the eye. <input type="checkbox"/>	I can describe how the eye works. <input type="checkbox"/>	I can explain how the eye forms an image. <input type="checkbox"/>
	I can name two problems that people can have with their vision. <input type="checkbox"/>	I can name the lens used to correct short sight, and the lens used to correct long sight. <input type="checkbox"/>	I can explain how lenses correct vision. <input type="checkbox"/>
	I can describe problems people have with their eyesight. <input type="checkbox"/>	I can describe how lenses correct short-sight and long-sight. <input type="checkbox"/>	I can use ideas about refraction to explain the action of lenses in glasses and contact lenses. <input type="checkbox"/>
4.2.5 Colour	I can state what happens to light when it passes through a prism. <input type="checkbox"/>	I can explain what happens when light passes through a prism. <input type="checkbox"/>	I can explain why a prism forms a spectrum. <input type="checkbox"/>
	I can state the difference between colours of light in terms of frequency. <input type="checkbox"/>	I can describe how primary colours add to make secondary colours. <input type="checkbox"/>	I can explain the formation of secondary colours. <input type="checkbox"/>
	I can state the effect of coloured filters on light. <input type="checkbox"/>	I can explain how filters and coloured materials subtract light. <input type="checkbox"/>	I can predict how coloured objects will appear given different coloured lights and filters. <input type="checkbox"/>
	I can predict how red light will appear on a white surface. <input type="checkbox"/>	I can predict the colour of objects in red light and the colour of light through different filters. <input type="checkbox"/>	I can predict the colour of objects in lights of secondary colours, giving a reason for the prediction. <input type="checkbox"/>