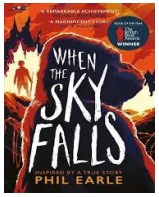
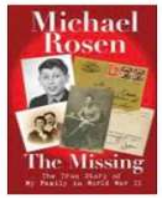
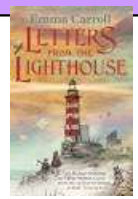
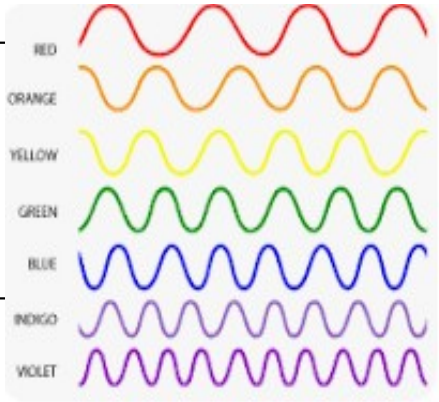
YEAR 6 SCIENCE- LIGHT-Autumn 2

Tier 3 Vocabulary	Knowledge Facts	Book Curriculum
Isaac Newton: Born in 1643, **Newton** had many scientific theories, such as, 'red, yellow and blue were the primary colors from which all other colors are derived.'	Light travels in straight lines: from a light source to our eyes, or to an object and then our eyes.	 
Light ray: Straight line drawn in a diagram to represent the direction of light.	Mirrors reflect light and help us see objects. Periscopes use mirrors to allow you to see objects you would not usually be able to see.	
Reflection: The bouncing of light off a surface.	When light travels from air through water, glass or anything that lets light through, it gets bent. This bending is called 'refraction'.	
Angle of incidence: The angle a ray of light falls on a surface (incidence) is equal to the angle at which its reflected.	The light waves are **refracted as they enter** and leave the prism. Shorter wavelengths= more refraction. As a result, red light is refracted the least and violet light is refracted the most - causing the coloured light to create a spectrum.	Other recommended reads
Angle of reflection: The angle between the reflected ray and the normal line.	White light enables us to see all colours (spectrum). However, A filter only allows certain colours of light through, e.g. a green filter allows green light through, but absorbs the other colours.	 
Refraction: The bending of light as it passes from one transparent substance into another.	Shadows are formed when an opaque object blocks a ray of light. Shadows are the same shape as the object that casts them.	
Wavelength: The distance between crests of a wave (see image bottom right).	**National Curriculum End Points** I can recognise that light appears to travels in straight lines. I can use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. I can explain that we see things because light travels from light sources to our eyes or from light sources to object and then to our eyes. I can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast	
Spectrum: A band of colors, as seen in a rainbow, produced by separation of light.		
Opaque: Not able to be .