

Year 6

Science

Focus: Light

Age related scientific vocabulary

Angles of incidence and reflection	Angle of incidence: the angle between the incoming light ray and the normal line.Angle of reflection: the angle between the reflected light ray and the normal line.
refraction	The bending of light waves as they go through transparent materials.
spectrum	A ray of light, may appear white, but is in fact made up of a rainbow of different colours—called a spectrum.



Key Knowledge

- Light travels in straight lines •
- Animals see light sources when light travels from the source into their eyes. .
- Animals see objects when light is reflected off that object and enters their eyes. •
- When rays of light reflect, they obey the law of reflection: the angle of incidence = angle of reflection. •
- Light waves travel at a different speed when they go through transparent materials, such as water or glass. • This causes the rays of light to change direction and bend. This is known as refraction.
- Although light appears white, it is actually made up of all the colours of the rainbow (a spectrum of colours).

Success Criteria	Pupil Reflection		Teacher Assessment
I know that light travels in straight lines and that we see objects because they reflect light into our eyes	Before	After	
I can explain the angles of incidence and reflection	Before	After	
I can explain how refraction changes the direction light travels	Before	After	
I can investigate how a prism changes a ray of light	Before	After	
I can explain why shadows have the same shape as the object that casts them—Use scientific knowledge to explain everyday phenomena	Before	After	