

# Year 3: How are shadows formed?

Subject Specific Vocabulary		Interesting Books	Sticky Knowledge about light and dark
reflection	A reflection occurs when a ray of light hits a surface and bounces off.		<ul style="list-style-type: none"> <li><input type="checkbox"/> Black and dark objects absorb light and heat whilst white or light objects reflect it.</li> </ul>
shadows	A shadow is formed when an object blocks out the light. The object must be opaque or translucent to make a shadow.		<ul style="list-style-type: none"> <li><input type="checkbox"/> Some objects like glass are transparent which means that light can shine through them.</li> </ul>
light source	The main light source for Earth is the Sun. Some other luminous objects give out light, for example, torches, candles and lamps.		<ul style="list-style-type: none"> <li><input type="checkbox"/> Our main source of light on Earth comes from the Sun. A ray of light travels very fast.</li> </ul>
opaque	Opaque objects do not allow light to pass through them, in most cases creating a shadow.		<ul style="list-style-type: none"> <li><input type="checkbox"/> Darkness is made by blocking light from the sun or some other source of light, which makes shadows.</li> </ul>
refraction	It is the change of direction of a light ray as it passes through different surfaces, for example, from air to water.		<ul style="list-style-type: none"> <li><input type="checkbox"/> The Sun and other stars, fires, torches and lamps all make their own light and so are examples of sources of light.</li> </ul>
periscope	A periscope is an instrument people use to look at things from a hidden position.		<ul style="list-style-type: none"> <li><input type="checkbox"/> A mirror is not a source of light, it merely reflects light. Similarly, the Moon is not a source of light because it reflects the light from the Sun.</li> </ul>
nocturnal	If something is nocturnal, it belongs to or is active at night. For example, bats and owls.		<ul style="list-style-type: none"> <li><input type="checkbox"/> Some animals are nocturnal. They are awake at night and can see very well in the dark. Our eyes aren't designed to see at night.</li> </ul>
orbits	An orbit is a repeating path that one celestial body takes around another.		
convex	Convex lenses, also called positive lenses, are lenses that curve outward from the edges to the centre.		
concave	A concave lens is one where the centre of the lens is thinner than the edges.	<p><b>Important facts to know by the end of the light and dark topic</b></p> <ul style="list-style-type: none"> <li>• What dark is (in relation to absence of light).</li> <li>• Know that we need light so we can see things.</li> <li>• Know that light can be reflected.</li> <li>• Know how a shadow is formed.</li> <li>• Understand why shadows change shape.</li> <li>• Know the dangers of looking directly at the Sun.</li> <li>• Know how to protect oneself from direct sunlight.</li> </ul>	