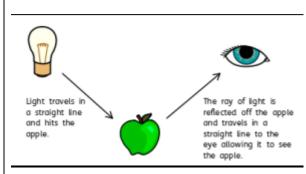


## Year 6 Science Sum 1 **Topic: Light**

## **Key Facts**

- The law of reflection states that the angle of incidence is equal to • the angle of reflection. Whenever light is reflected from a surface, it obeys this law.
- We need light to be able to see things. Light waves travel out from • sources of light in straight lines. These lines are often called rays or beams of light
- Light from the sun travels in a straight line and hits the chair. The ٠ light ray is then reflected off the chair and travels in a straight line to the girl's eye, enabling her to see the chair
- Light travels as a wave. But unlike waves of water or sound waves, • it does not need a medium to travel through. This means light can travel through a vacuum - a completely airless space.
- The angle of reflection is the angle between the normal line and the ٠ reflected ray light.
- The angle of incidence is the angle between the normal line and the ٠ incident ray of light





when the toy is close to the light



Key Learning:	Prior Learning:	Books to support/ Enrichment Opportunities:
<ul> <li>How does light travel? - Light travels in a straight line.</li> <li>When you place a torch on a table in a dark room, the beam travels in a straight line.</li> <li>Reflection is when light bounces off a surface - this changes the direction in which the light travels.</li> <li>What is the relationship between light sources and shadows?</li> <li>Because light travels in straight lines, when there is an opaque object blocking the light, a shadow is formed.</li> <li>These shadows have the same shape as the objects that cast them.</li> <li>The size of a shadow changes as the light source moves.</li> </ul>	<ul> <li>Certain things produce light, usually by burning (e.g. the Sun) or electricity (e.g. street lights)</li> <li>Shiny materials do not make light but do reflect it.</li> <li>Shadows are caused when certain materials block light.</li> <li>Light travels in straight lines. When light is blocked by an opaque object, a dark shadow is formed.</li> <li>The further away the light source is, the smaller the shadow is. The closer the source of the light, the bigger the shadow.</li> </ul>	

## **Diagram/Investigations**

## Subject Specific Vocabulary

Key word	Definition
Sun	A huge star that Earth and the other planets in our solar system orbit around.
Light Source	An object that emits its own light.
Emits	To emit light means to produce it.
Opaque –	You cannot see through it.
Transparent	You can see through it.
Translucent	Some light can pass through it.
Reflects	When a light ray hits a surface and bounces off.
Shadow	A dark shape that appears on a surface when something stands between the light source and the surface.