

Year 6

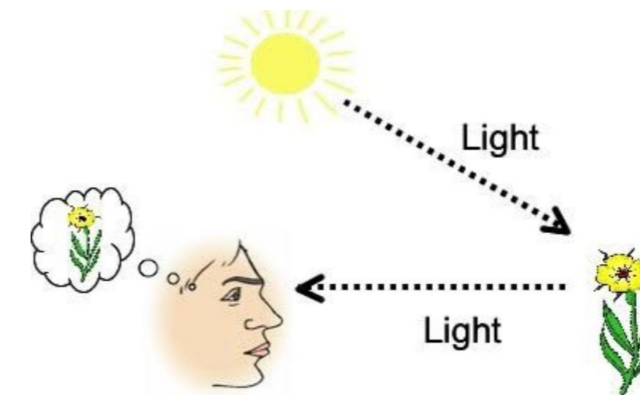


Light

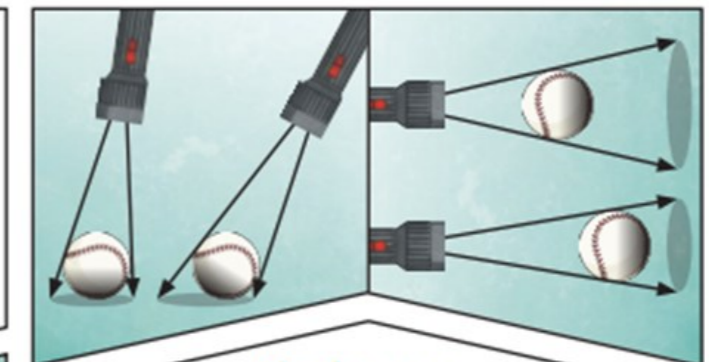
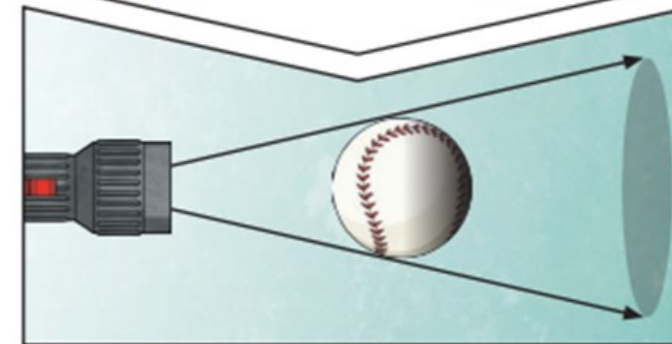
Key Vocabulary			



### How we see:



A **shadow** is always the same shape as the object that casts it. This is because when an **opaque** object is in the path of **light** travelling from a **light source**, it will block the **light** rays that hit it, while the rest of the **light** can continue travelling.



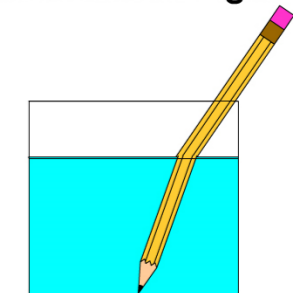
**Shadows** can also be elongated or shortened depending on the angle of the **light source**. A **shadow** is also larger when the object is closer to the **light source**. This is because it blocks more of the **light**.

### How does light travel?

Light travels in a straight line.

When you place a torch on a table in a dark room, the beam travels in a straight line. Reflection is when light bounces off a surface - this changes the direction in which the light travels.

### Refraction of Light



Light bends inwards because the speed of light is slower in water

### Pre existing knowledge

- Certain things produce light, usually by burning (e.g. the Sun) or electricity (e.g. street lights)
- Shiny materials do not make light but do reflect it.
- Shadows are caused when certain materials block light.
- Light travels in straight lines. When light is blocked by an opaque object, a dark shadow is formed.
- The further away the light source is, the smaller the shadow is. The closer the source of the light, the bigger the shadow.

### Key Vocabulary

Angle	The direction in which you look at something.
Dark	The absence of light.
Dim	Light that is not bright.
Source	Where something comes from.
Surface	The flat top part of something or the outside of it.
Translucent	Some light can pass through.
Transparent	You can see through it.
Mirror	Flat piece of glass which reflects light, when you look at it you can see yourself reflected in it.
Opaque	You cannot see through it. No light passes through.
Reflects	Sent back from the surface, not through it.
Shadows	A dark shape on a surface that is made when the light is blocked by an object.
Torches	A small electric light which is powered by batteries, which you can carry.

