

Year 3 Science

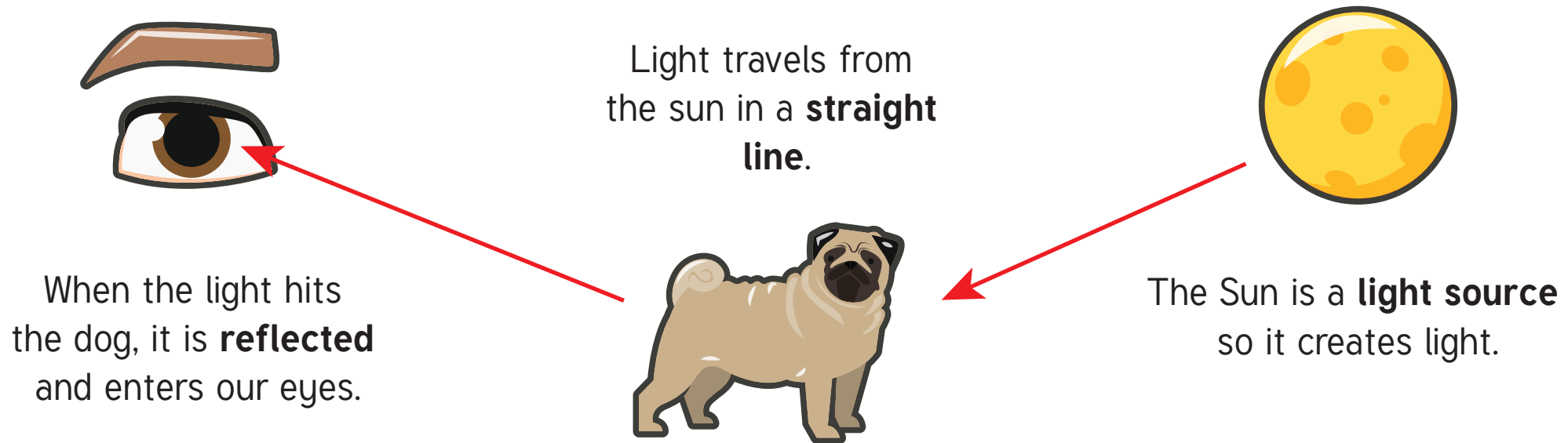
Light

I recognise that shadows are formed when the light from a light source is blocked by an opaque object.



Light

We have learnt that we can see things because light is reflected. Some materials reflect light better than others. Light travels in straight lines.

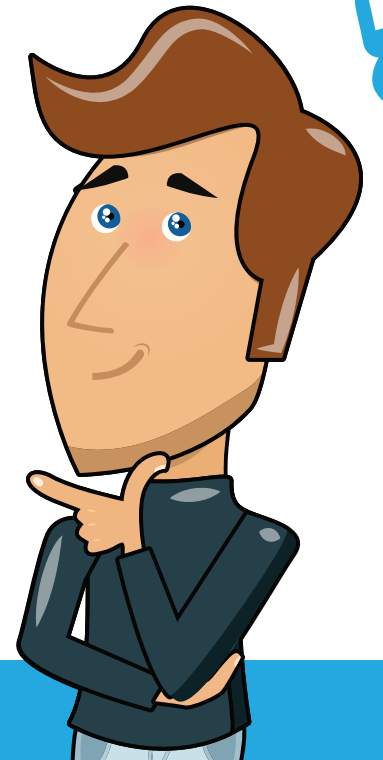


When light hits an object, it is **reflected** (bounces off) and enters our eyes. This is how we see the object.

Thinking Time...

What happens when an object blocks the light travelling in straight lines?

Talk to your partner before we discuss it as a class.



Shadows!

A shadow is made when an object blocks light.

A shadow is a dark area or shape caused by a solid object blocking the rays of light from a light source.



Shadows!

The object must be opaque or translucent to make a shadow. A transparent object will not make any shadow, as light will pass straight through it.

Opaque

Opaque materials do not let any light pass through them. They block the light. Wood is an example of an opaque material.

Translucent

Translucent materials let some light through, but they scatter the light in all directions, so that you cannot see clearly through them. Tissue paper is an example of a translucent material.

Transparent

Transparent materials let light pass through them in straight lines, so that you can see clearly through them. Glass is an example of a transparent material.

Can you think of any other examples of opaque, translucent or transparent materials or objects?

Shadows!

A shadow is made when an object blocks light. The shadow appears on the side of the object furthest from the light source. The object must be opaque or translucent to make a shadow.

A **transparent** object will not make any shadow, as light will pass straight through it. **Opaque** objects make dark shadows. **Translucent** objects make faint shadows.



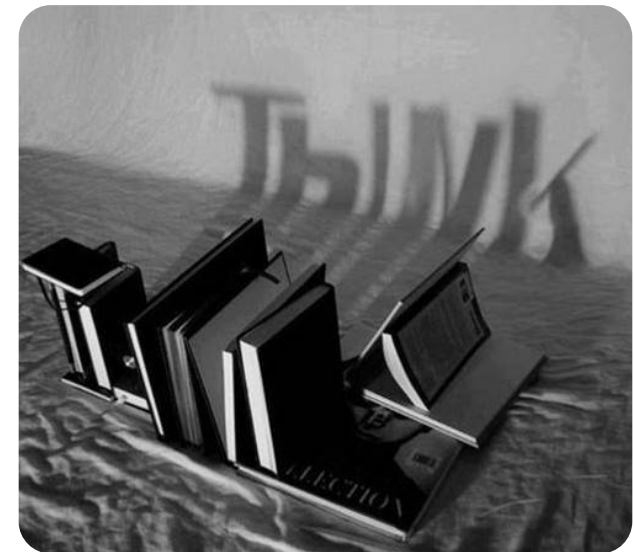
Task

On your tables, you have a variety of translucent, opaque and transparent objects and a torch.

In pairs, you will investigate which of the objects makes the best shadow.

When you are making shadows, investigate what happens when you move the torch. Do the shadows stay the same?

Then, using some of the objects, you will try and spell out a word in the shadow of the objects.



What did we find out?

Think about these questions and discuss with your partner before feeding back to the class.

1. What did you most enjoy about this lesson?
2. Tell me one thing you have learnt.
3. Did you find anything difficult?

