

Light and Shade

Discussion Questions:

- 1) Can light travel through some objects?
- 2) What objects block sunlight?
- 3) What do the terms transparent, translucent and opaque mean?

Light travels in straight lines

The Sun is a burning ball of gas. Reactions in its core produce large amounts of energy. This energy is released as heat and light that radiates out from the Sun in all directions.

The Sun's light reaches the Earth by travelling in straight lines. The side of the Earth that faces the Sun will experience day time. The side that is facing away from the Sun will receive no light and will experience night time.

Rays of light travel through the air.

They can travel through water.

Light can even travel through see-through objects like glass.



Transparent Objects

Transparency means that you can see clearly through something.

A transparent object allows light to travel through it.

Glass and plastic are good examples of transparent objects.



Translucent Objects

Translucency means that you can see through something but not clearly.

A translucent object allows only some light to travel through it.

Some objects made of cloth, paper, plastic and glass are translucent.



Opaque Objects

Opacity means that you cannot see through something.

An opaque object does not allow any light to pass through. It blocks the light and forms a shadow.

Objects made of wood, some hard plastics and metal are opaque.



Light travels in straight lines.

Rays of light can pass through transparent and translucent objects but will be blocked by opaque objects.

When an opaque object blocks the light we see a shadow.

