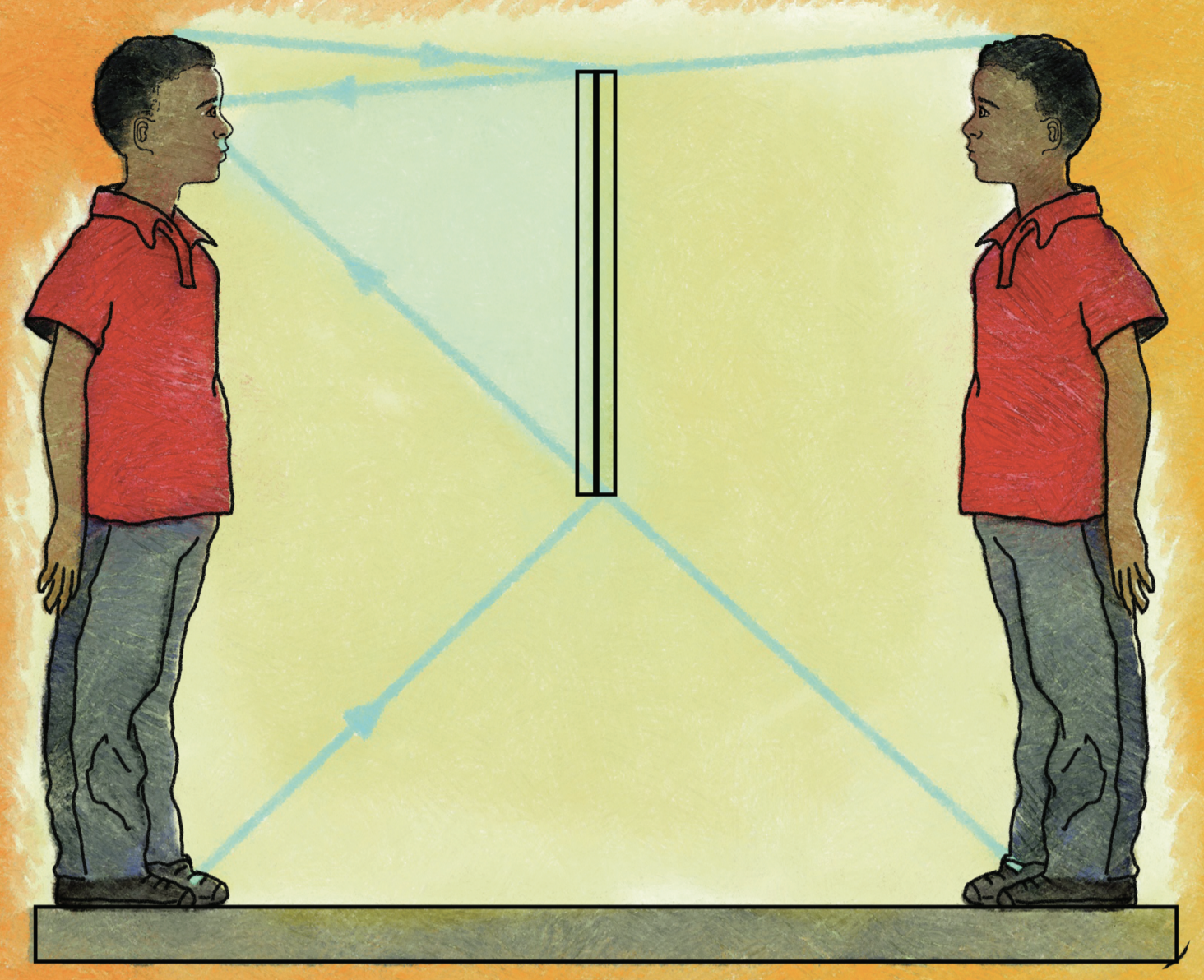


LIGHT



Light is produced by fires, light bulbs and the Sun. Light is made of vibrating electric and magnetic fields which are at right angles to each other. The light that we can see is called **visible light**, but there is also light that we cannot see, including ultraviolet light and infrared light.



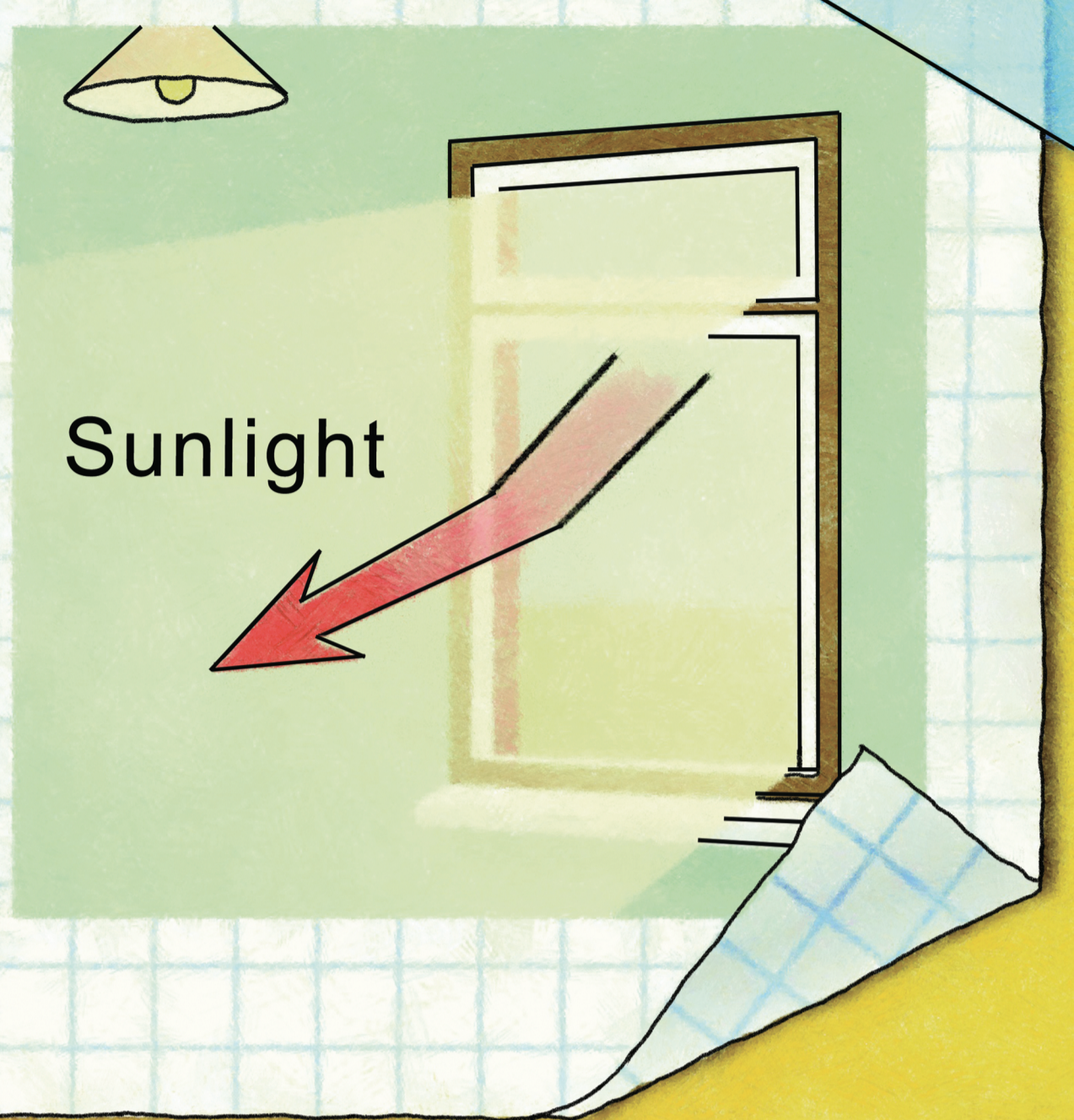
REFLECTION OF LIGHT

A smooth surface like a mirror reflects light. When light from an object hits the mirror, it bounces back at the same angle.

REFRACTION OF LIGHT THROUGH GLASS

WHAT IS LIGHT?

Light rays travel at different speeds through different substances. When light moves from one material to another, the change in speed as it slows down or speeds up causes the light rays to bend. This bending is called refraction.



TRANSPARENCY

Transparent
ALL light passes through

Translucent
SOME light passes through

Opaque
NO light passes through

LIGHT AND COLOUR

white light coming in

green light

green surface

The colours we see are the wavelengths that are reflected. A green leaf looks green because it reflects green light. All of the other colours from the spectrum are absorbed.

REFRACTION OF LIGHT THROUGH WATER

Due to the change in medium the light bends - making it appear the object in the water is in a different location to where it actually is.

Air

Water

THE SPECTRUM OF LIGHT

radio microwaves infrared visible light ultraviolet X-rays gamma rays

wavelength

