

Lesson 10 - Review of Light

Science - Physics - Key Stage 3

Light and Space

Miss Wickham



Drawing ray diagrams and properties of light



Drawing ray diagrams



True or false?

Light travels slower than sound

Light can bend around corners

Light is a longitudinal wave

Shiny surfaces are good at reflecting light

A luminous object produces its own light

Wood is an example of a non-luminous object

Light should always be drawn coming out of the eye and reflecting on the object being seen

Opaque means light cannot pass through



Reflection and refraction

Task - compare reflection and refraction

Include:

- Definition for each
- Practical to demonstrate reflection and refraction (what are the similarities and differences?)
- Draw a ray diagram to show reflection and refraction
- Examples of reflection and refraction in everyday life

The law of reflection is the angle of...

Refraction is caused when light enters a new...

During the reflection and refraction practical...

An everyday example of refraction...



Reflection

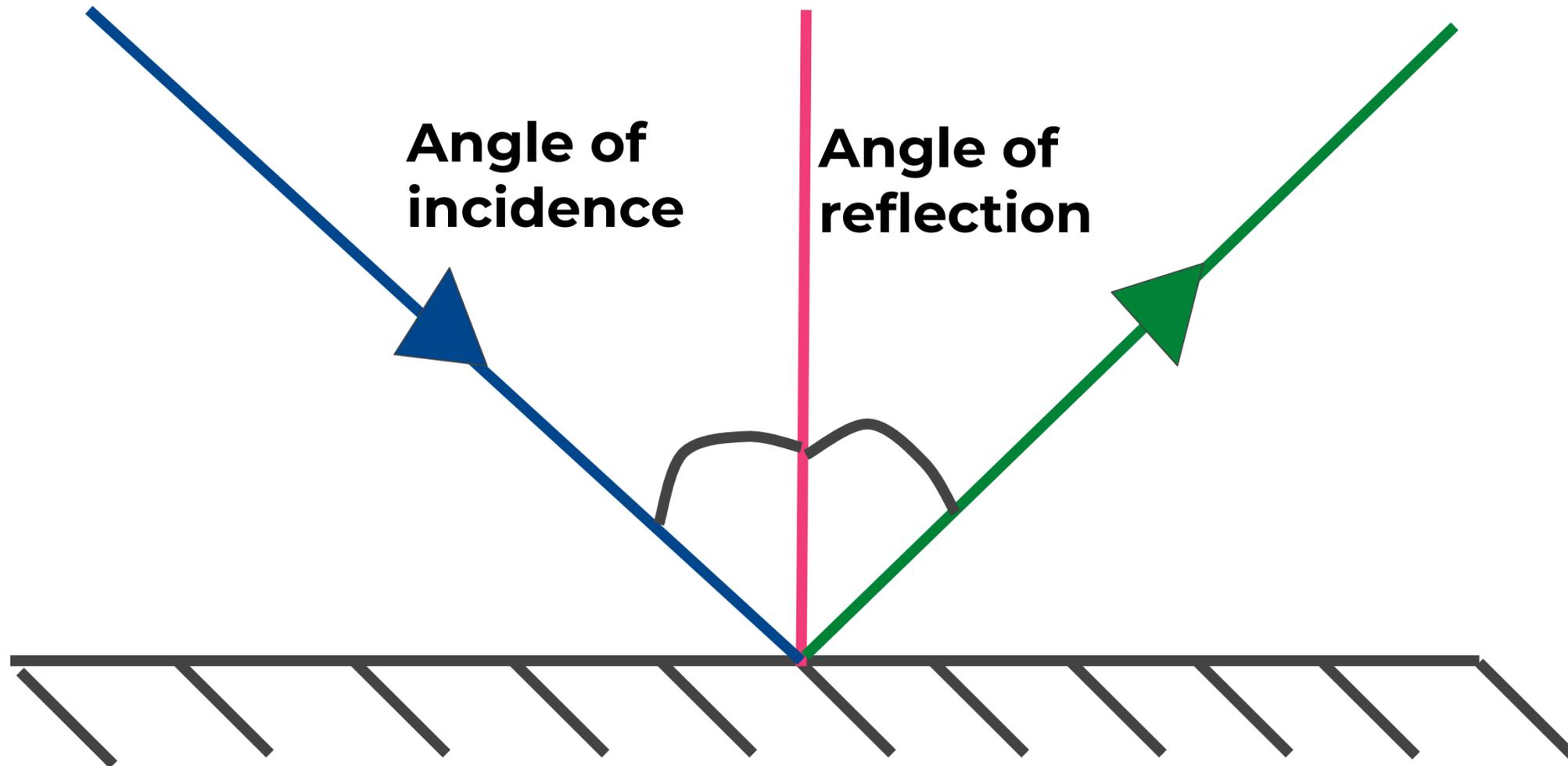
Incident ray

Normal line

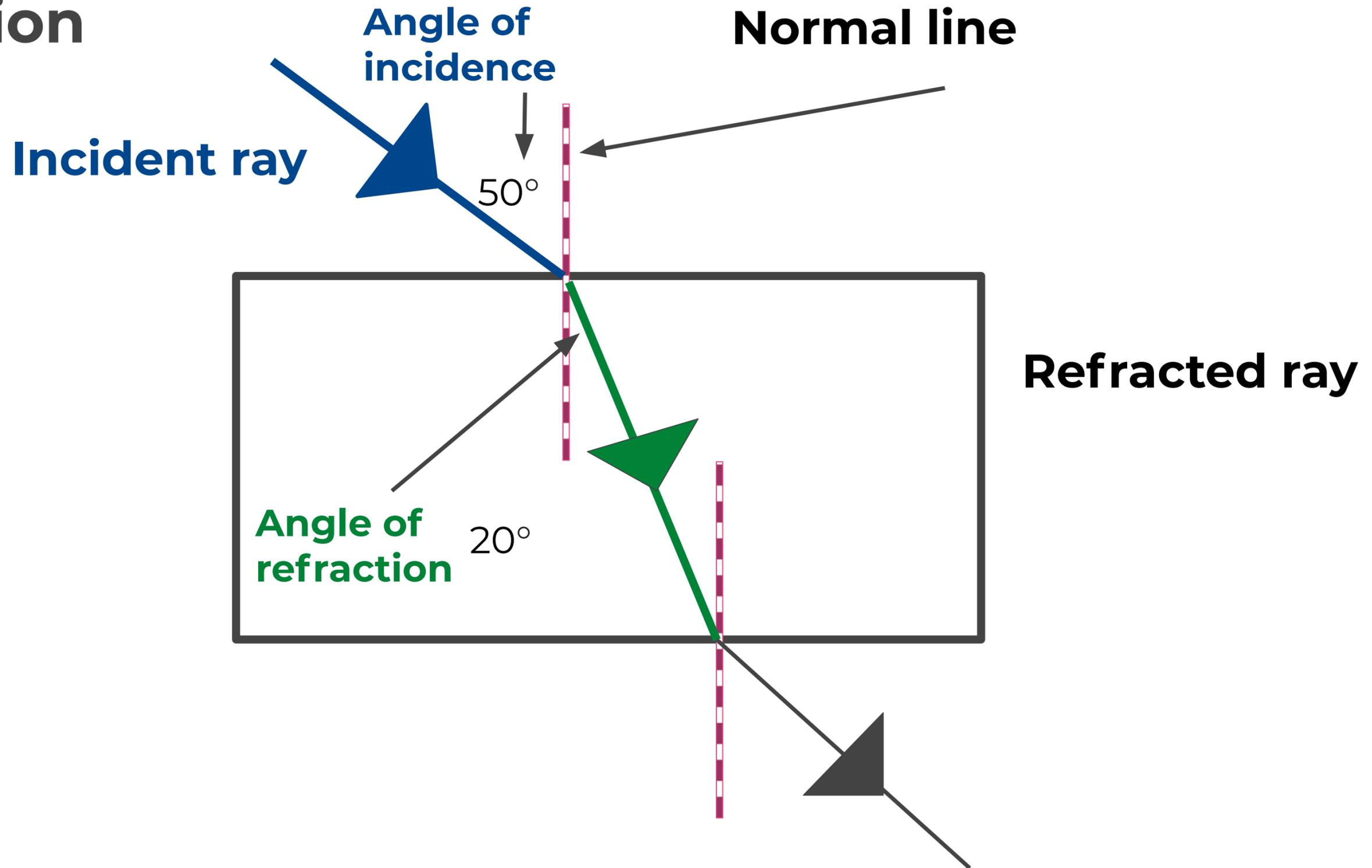
Reflected ray

Angle of incidence

Angle of reflection

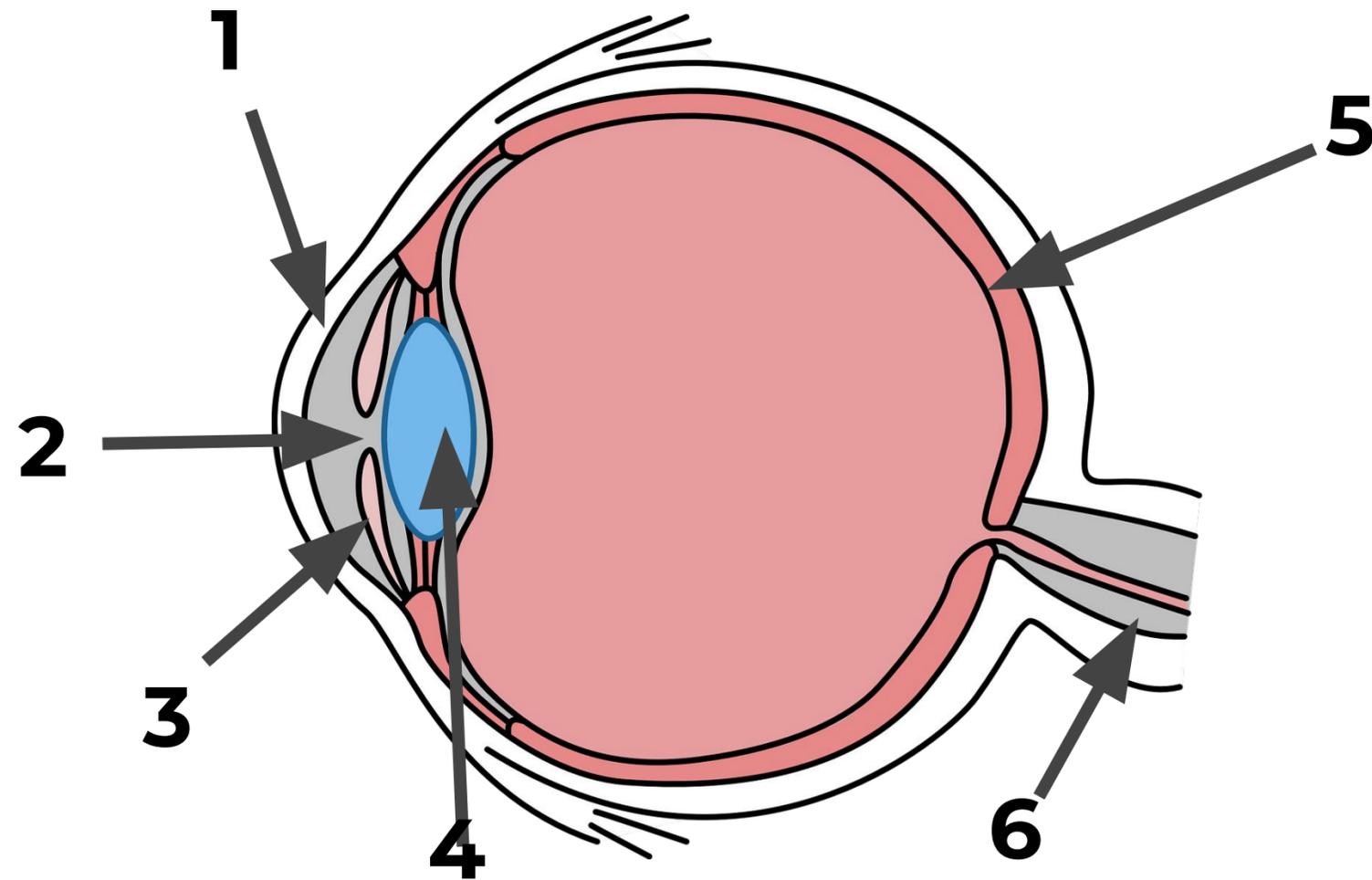


Refraction



Vision

Task - label the parts of the eye



[Eye diagram] - [ArtsyBee] - [Needpix]

Cornea
Pupil
Retina
Optic nerve
Lens
Iris



Task - Match up the part of the eye to the function

Part of the eye
(1) Iris
(2) Pupil
(3) Cornea
(4) Lens
(5) Retina
(6) Optic nerve

Function
(a) Refracts light
(b) Coloured circle, controls the size of the pupil
(c) Light-sensitive layer at the back of the eye, made up of rods and cones
(d) Black part of the eye, lets light in
(e) This focuses light onto the retina
(f) Carries messages from the retina to the brain.



Correcting vision

Short
sightedness

Long
sightedness

Focal point in
front of the
retina

Focal point
behind the
retina

Concave lenses

Convex lenses



Colours

Answer the following questions

1. Name the 7 colours of the visible light spectrum.
2. State the 3 primary colours.
3. What 2 colours make cyan?
4. How does a filter work?
5. Explain why a white wardrobe appears white in white light.
6. What colour would blue jeans appear in red light?

