

# Lesson 10 - Review of Light

Science - Physics - Key Stage 3

Light and Space

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# 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

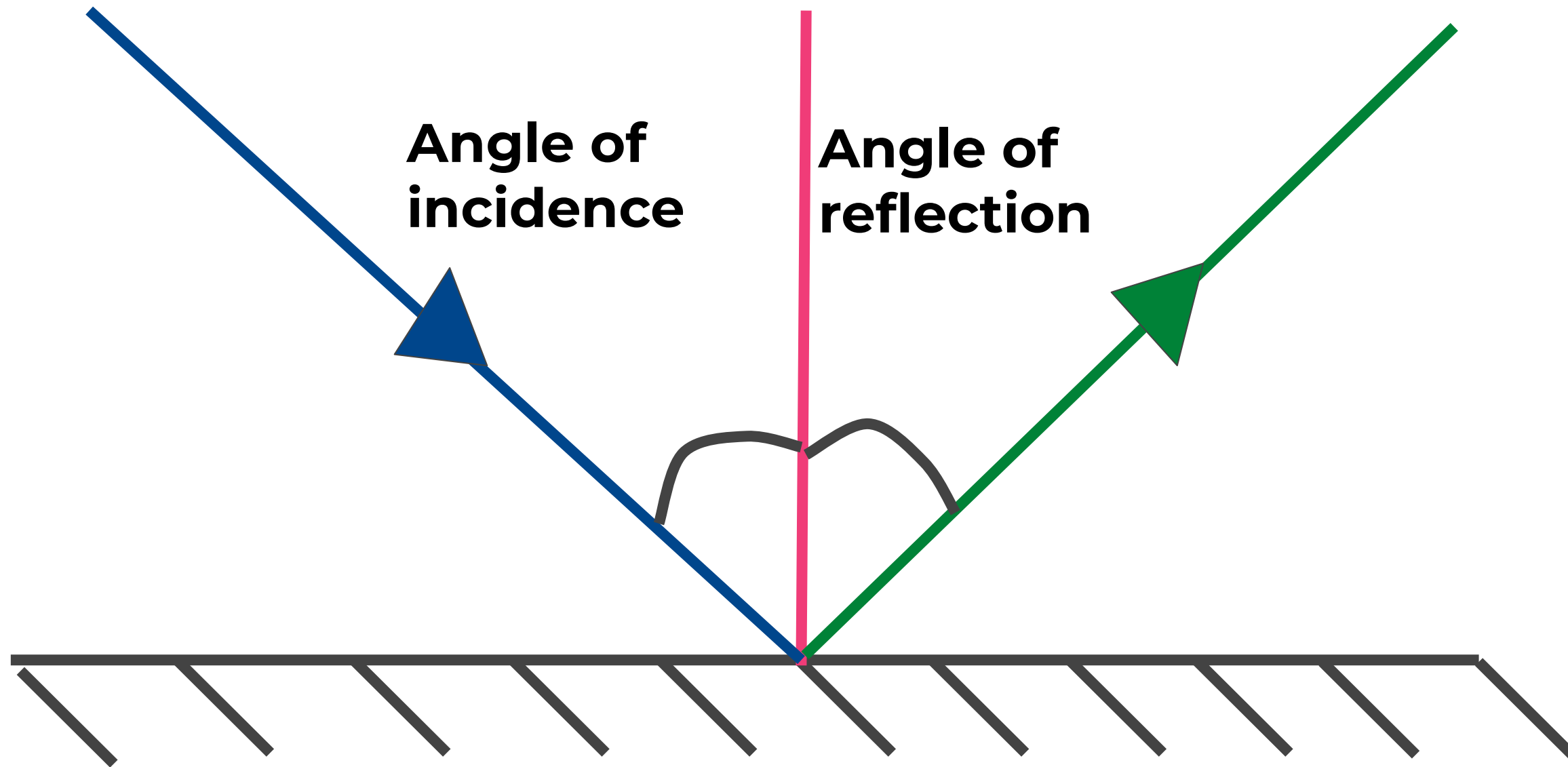
**Incident ray**

**Normal line**

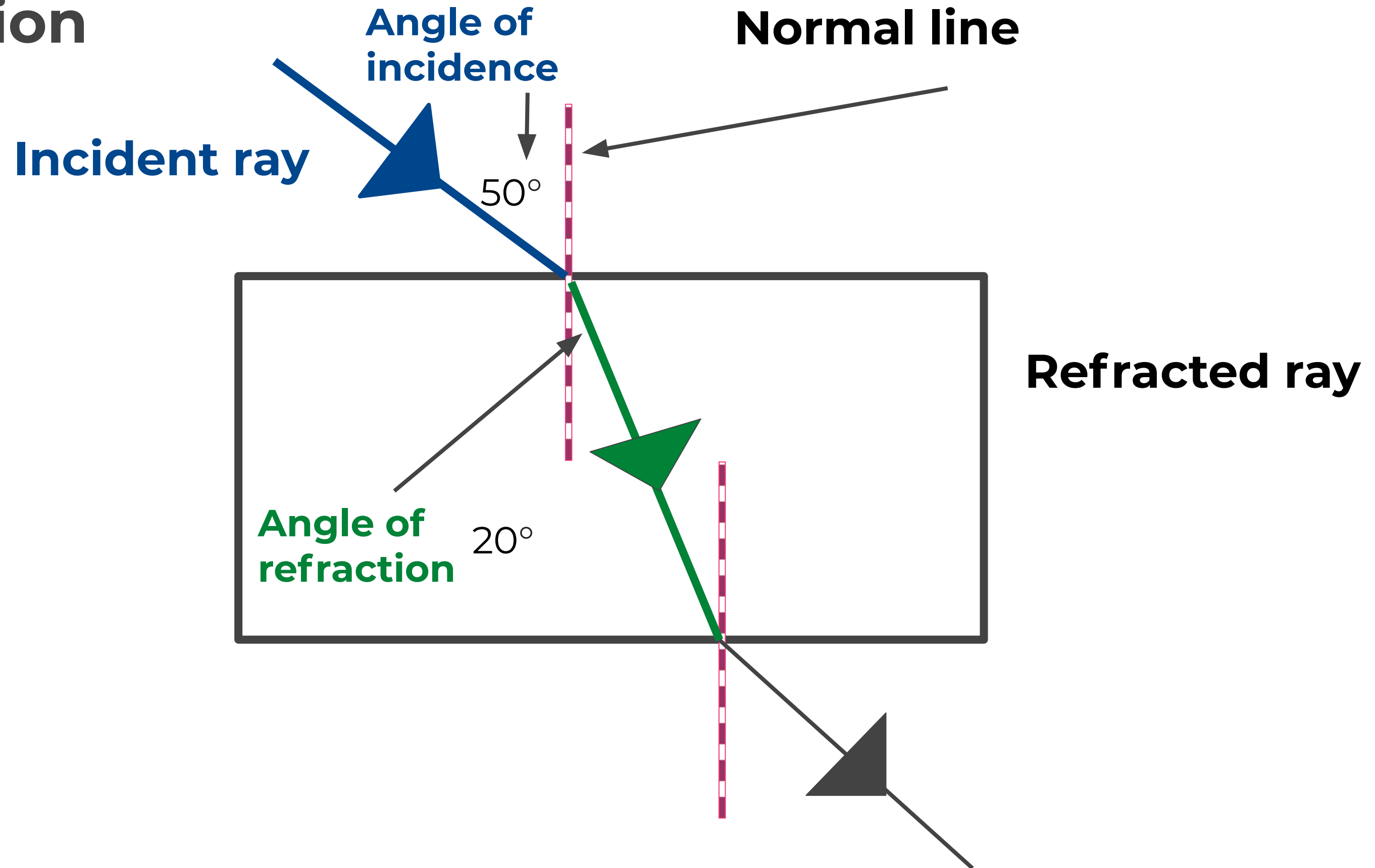
**Reflected ray**

**Angle of  
incidence**

**Angle of  
reflection**

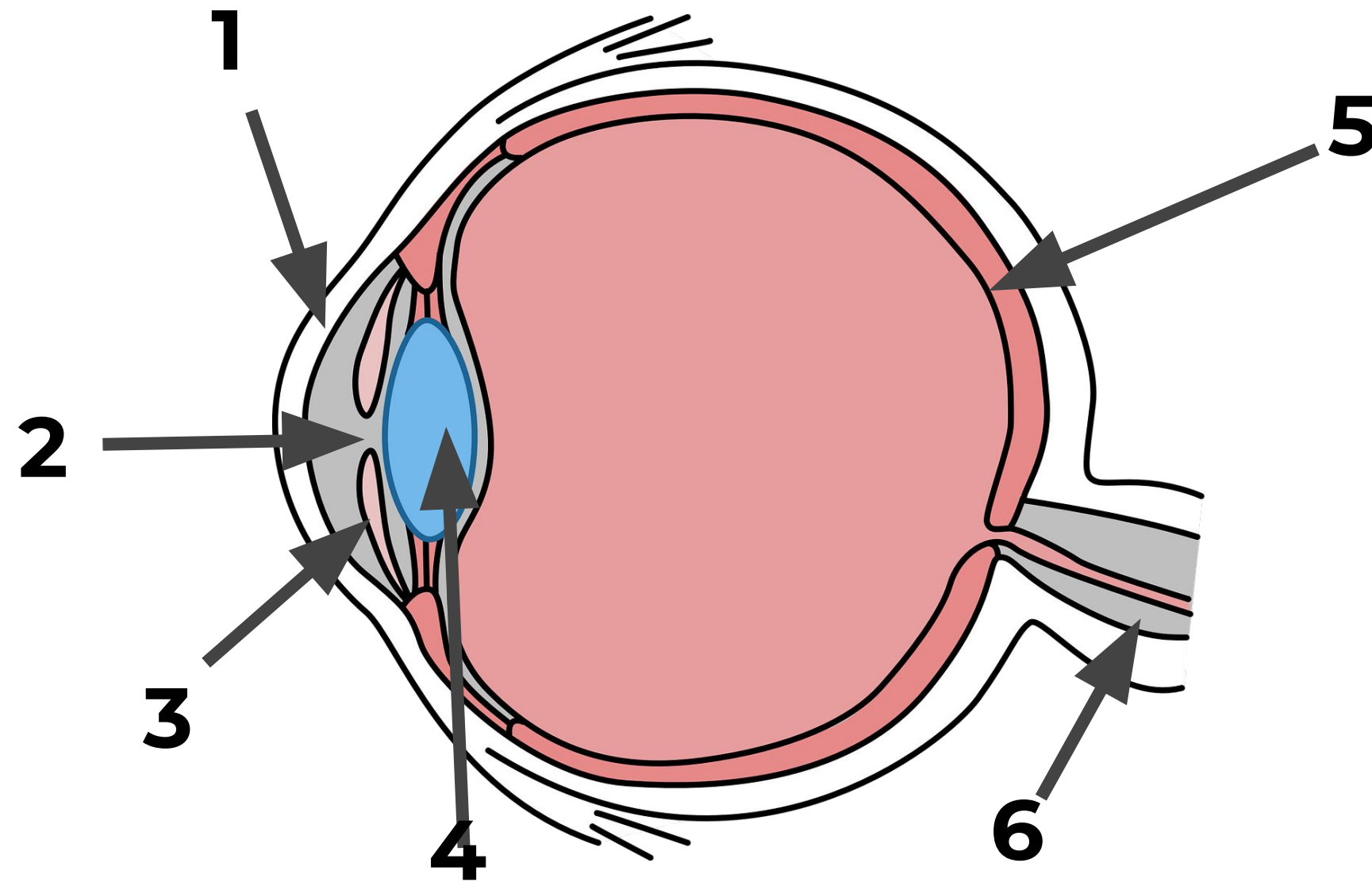


# Refraction



# 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?

