

The human eye

Learning Objective

1. **Identify** the main parts of the human eye
2. **Analyze** the functions of eye parts
3. **Apply** their understanding to real-life situations and vision problems.



Keywords

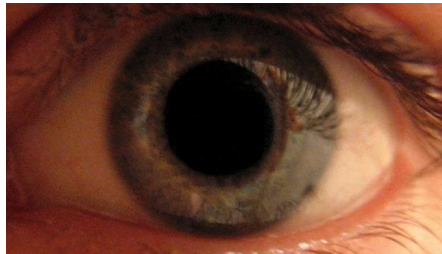
- Light
- Lens
- Retina
- Pupil
- Iris
- Aperture
- Image
- Focus
- Inverted image
- Sensor

STARTER: What do these have in common?

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HPL ACP Linking (Core ACP)

- Students connect **two different systems** (human eye and camera).

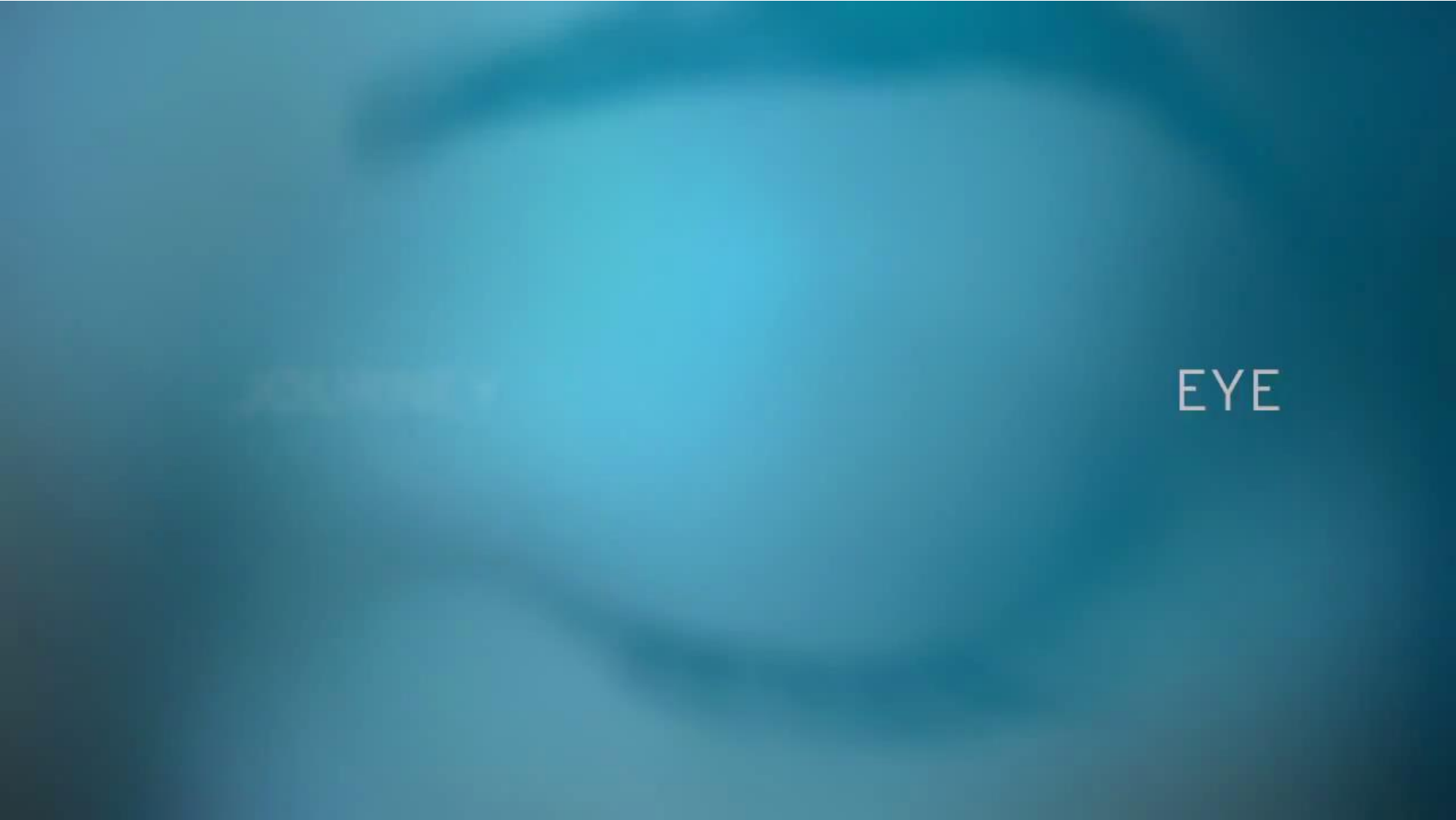
HPL VAA Confidence

- Students explain similarities using scientific language.

STARTER: What do these have in common?

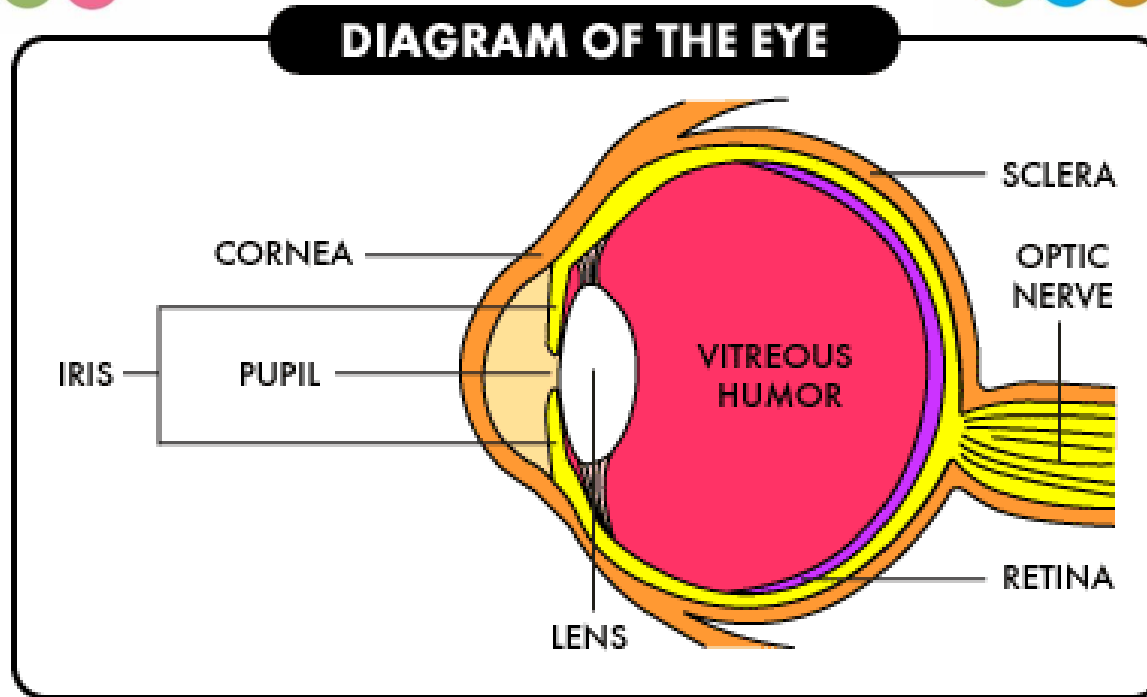
The human eye and a camera are similar because both use a lens to focus light, control the amount of light entering, and form an inverted image on a screen or sensor.

A journey through the human eye.



The Human Eye – Key Parts & Functions

Eye Part	Function
Cornea	Refracts (bends) light
Iris	Controls pupil size
Pupil	Controls amount of light entering
Lens	Focuses light
Retina	Detects light and forms image
Optic nerve	Sends signals to the brain
Sclera	Hard structure forming the outside of the eye



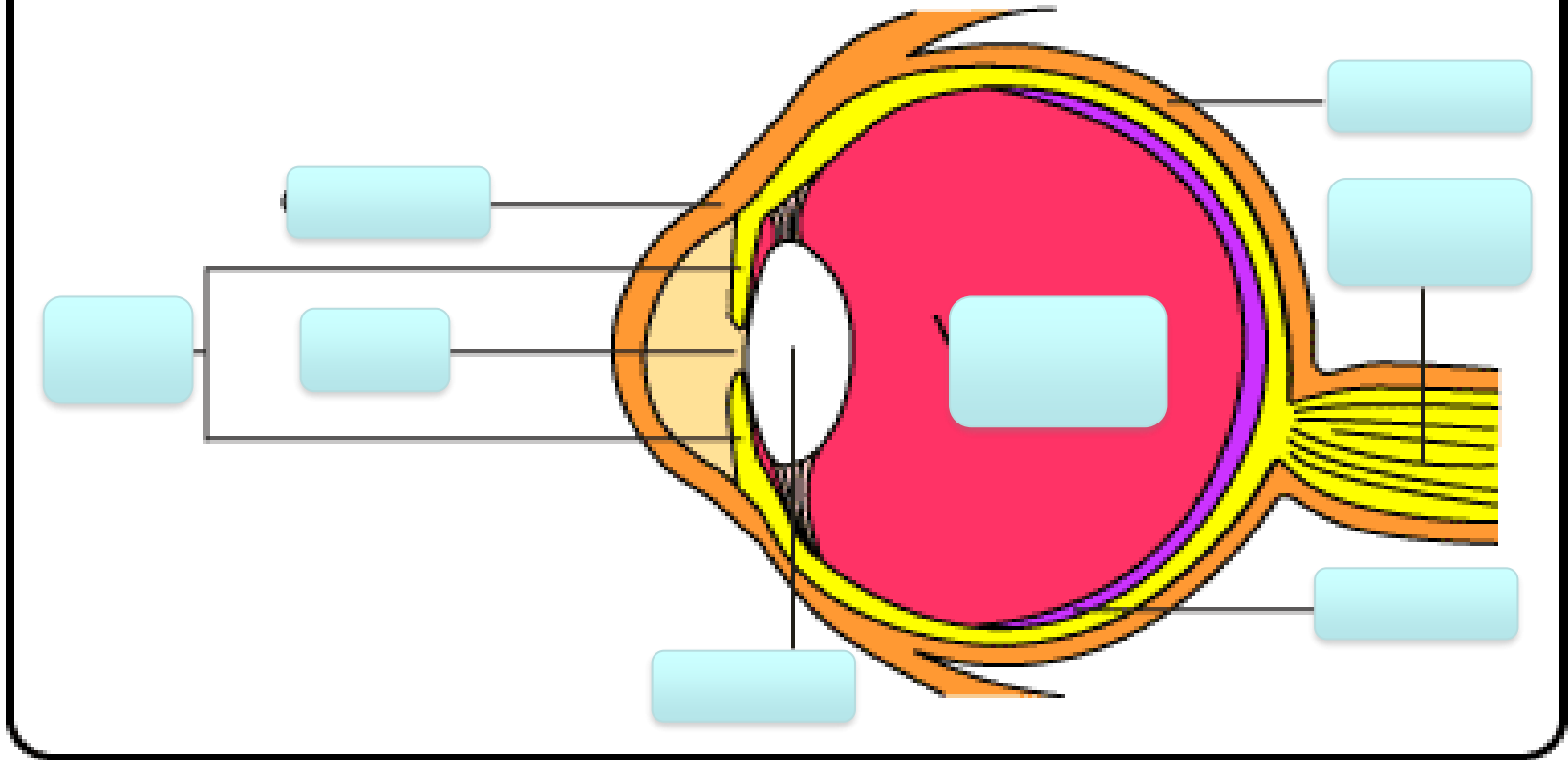
HPL ACP Analysing

- Students distinguish between **different parts** of the eye (cornea, lens, retina, optic nerve).
- They recognise structure and position

HPL VAA Accuracy & Precision

Correct scientific spelling and placement of labels.
Clear, neat diagram work.

DIAGRAM OF THE EYE



HPL ACP Analysing

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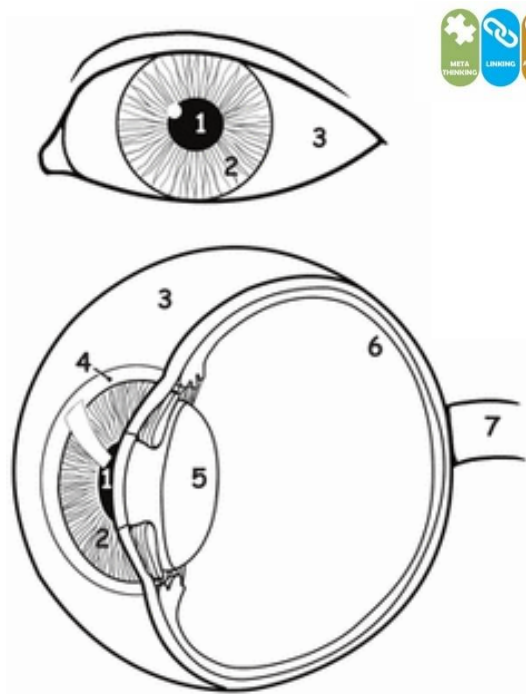
Label the different parts
of eye

HPL VAA Accuracy & Precision

Correct scientific spelling and placement of labels.
Clear, neat diagram work.



TASK: Draw lines matching the number with the name, and name with the function of each structure of the eye.



HPL ACP Analysing

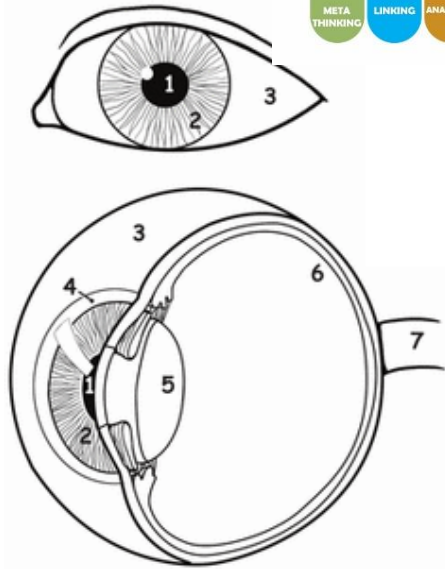
- Students distinguish between **different eye structures** and **different functions**.
- They select the correct match from several options.

HPL VAA Accuracy & Precision

Correct matching of structure to function.

1	Retina	transparent outer part of your eye
2	Cornea	focuses light entering the eye
3	Sclera	changes size to adjust the amount of light
4	Iris	a muscle that controls the size of the pupil
5	Optic nerve	sends electrical impulses from eye to the brain
6	Pupil	Photosensitive layer of cells at the back of the eye
7	Lens	Hard structure forming the outside of the eye

TASK: Draw lines matching the number with the name, and name with the function of each structure of the eye.



HPL ACP Analysing

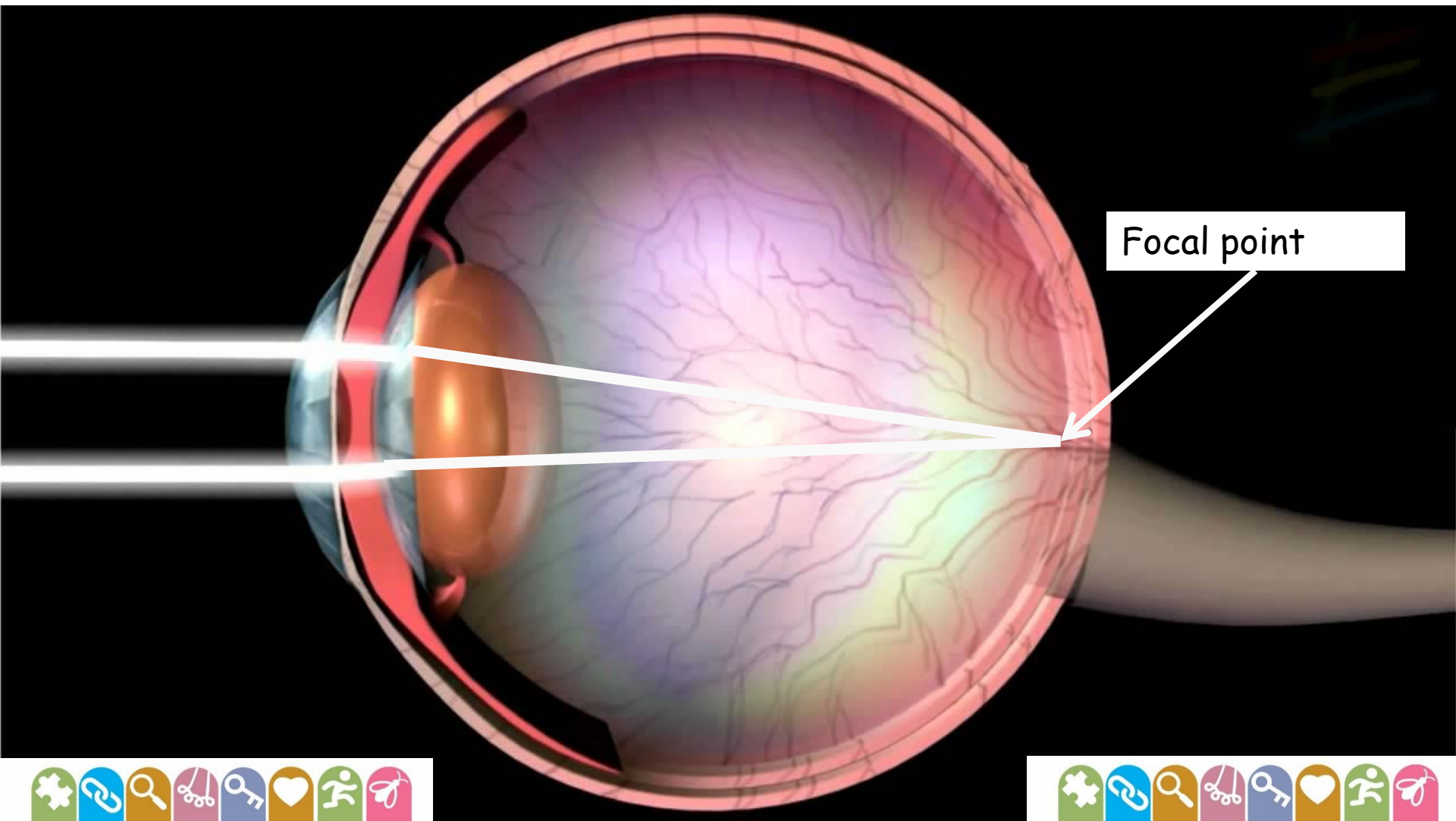
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TASK: Complete the diagram showing how the two rays will look like after passing through the convex lens.
Label the focal point.



TASK: Arrange the structures of the eye in the correct order (as light travels through the eye).

Retina

Brain

Lens

Pupil

Optic nerve

Cornea

Cornea



Pupil



Lens



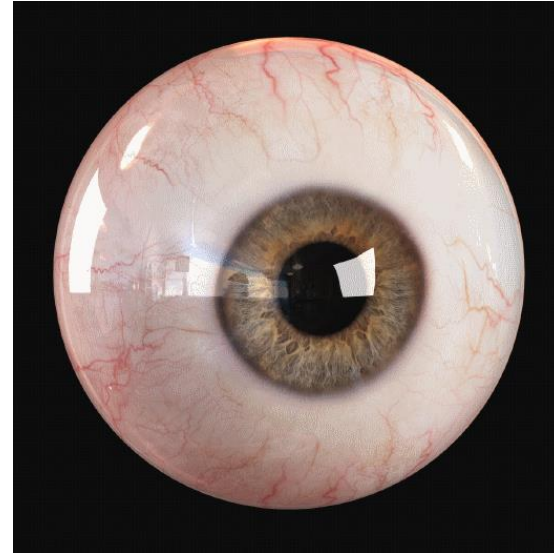
Retina



Optic nerve



Brain



HPL ACP Analysing

- Students distinguish the **role and position** of each structure.
- They decide which structure comes before or after.

HPL VAA Accuracy & Precision

Correct scientific order of eye structures.

Challenge Question:

Explain why the image formed on the retina is upside down but we see objects the correct way up.

UAE Links

Real-Life Connections

Why are eye and cameras important for safety and security in the UAE?

HPL:

- . ACP: Linking
- . VAA: Responsibility

Exit Ticket

One similarity between the eye and a camera

One difference between them

HPL Focus:

- . ACP: Meta-thinking
- . VAA: Confidence

Homework

Draw and label the **human eye and camera**

Write one paragraph comparing them