

## Questions: The eye

Some of these questions require you to think a little bit – don't be afraid! In some cases, you will need to pull together things that you have learned in the previous unit, or that you know from your everyday life, and apply them to these situations. It's OK to be wrong, as long as you try!

1. When light enters the eye, it passes through a number of structures. Imagine that you are a ray of light. List the names of these structures, as well as the ORDER through which you travel through them.

① Cornea                      ④ Lens  
 ② aqueous humour      ⑤ vitreous humour  
 ③ Pupil                      ⑥ Retina!

2. List or draw all of the places in the eye where light will be refracted. (there are 4 places)

① cornea                      ③ Lens  
 ② aqueous humour      ④ vitreous humour

3. List 3 similarities and 3 differences between the eye and a camera.

Don't worry about this question.

4. Suppose that you were born with an eyeball that is a little too long; it's shaped a bit like a football instead of a circle. The lens of your eye is not able to bend enough to focus the image right on your retina.

- a. Draw a diagram showing where an image that is IN FOCUS would be formed in your eye.  
 b. How might this condition affect your vision?  
 c. What could be done to correct this problem? Hint: you will need to bend some light...

a) In focus



forms ON retina

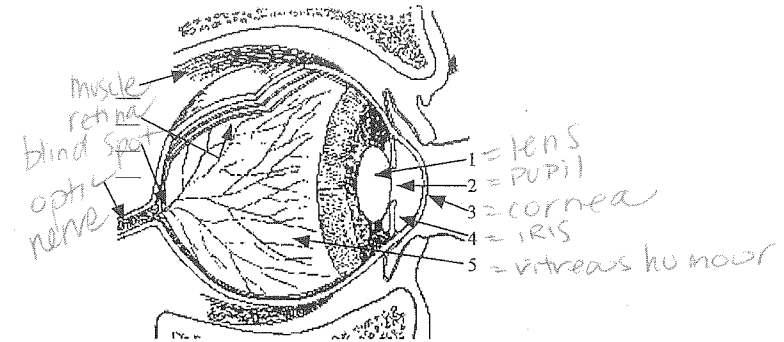
c) correct the problem with the use of glasses or contacts and a concave lens!

## THE EYE REVIEW

Name \_\_\_\_\_

Key

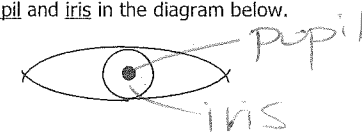
1. Label the following parts on the diagram below: lens, retina, optic nerve, cornea, iris, pupil, blind spot, vitreous humour, muscle.



2. Name four parts of the eye that light must go through in order to reach the retina at the back.

Cornea aqueous lens vitreous  
humour humour

3. Draw arrows and label the pupil and iris in the diagram below.



4. When you say that a person has blue eyes, you are talking about the colour of the

IRIS

5. MATCHING.

- B protects the eye and helps focus light      A. vitreous  
humour
- H the dark centre of the eye that allows light in      B. cornea
- I controls the size of the pupil      C. muscle
- F oval-shaped part that helps focus light at the back of the eye      D. retina
- A jelly-like substance that helps keep the eye round      E. blind spot
- D the light sensitive layer      F. lens
- G sends a nerve impulse from the retina to the brain      G. optic nerve
- E where the optic nerve joins the retina      H. pupil
- C the part that makes the eye move (up, down, back and forth)      I. iris

