

## P3 Lenses and Light Answers

1. Describe how the image formed by the lens in a camera is different from the image formed by a lens used as a magnifying glass.

In a camera the image is real, inverted and diminished not virtual, upright or magnified.

2. What name is given to the type of lens used as a magnifying glass?

Converging/convex

3. Name a light detecting device which may be used in a camera.

Photographic film or CCD/CMOS

4. Which part of the eye changes size to make sure the correct amount of light enters the eye?

Iris/pupil

5. What is the function of the ciliary muscles inside the eye?

To change the size/curvature of the lens.

6. What is the function of the lens inside the eye?

To focus the light onto the retina.

7. The process by which the cornea and lens change the direction of the light is called what?

Refraction

8. Give two similarities between an eye and a camera.

Both use a converging lens, both form an image that is real and inverted

9. Which device passes light through optical fibres to produce images of the inside of the body?

Endoscope

10. Give a medical use for a laser

Eye surgery

11. How does total internal reflection occur?

When the angle of incidence is greater than the critical angle.