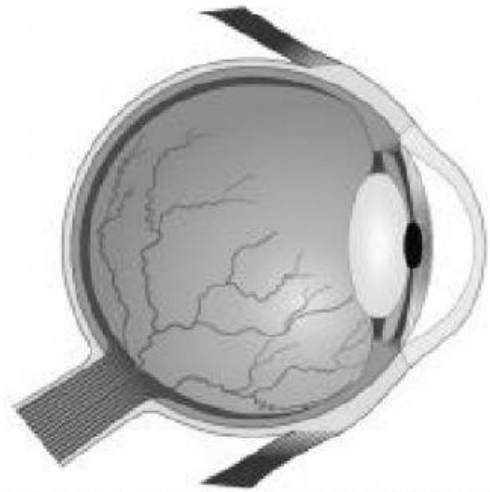
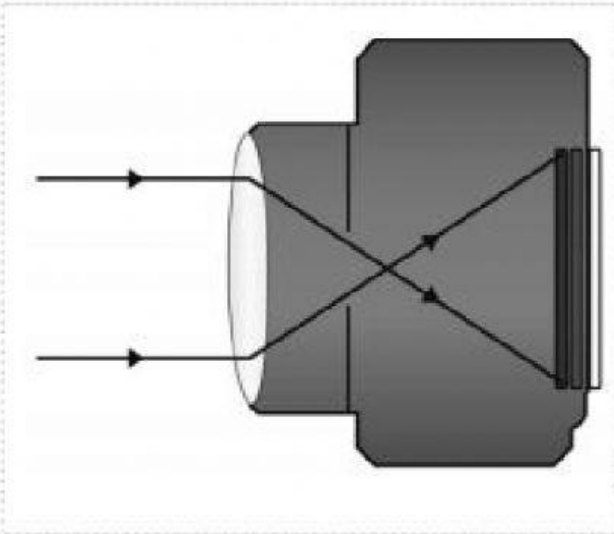
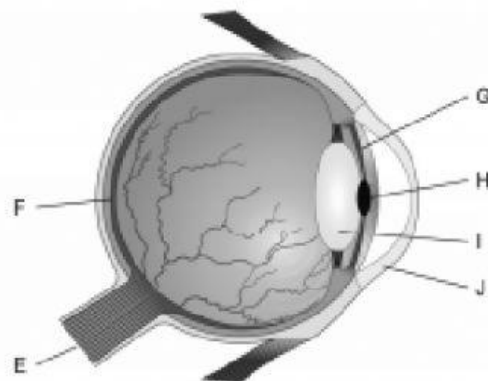
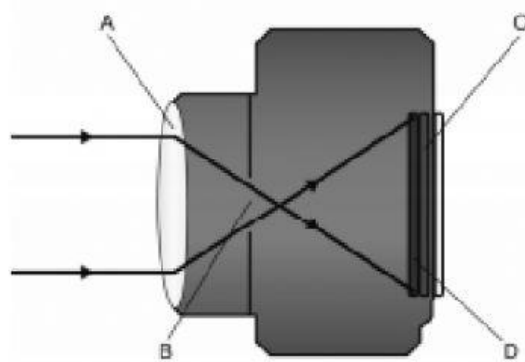


Drag and drop the following scientific terms and uses where they belong:



aperture	cornea	iris	lens
lens	muscles	optic nerve	pupil
retina	sensor	shutter	
carries nerve impulses to the brain	changes the shape of the lens to focus on close or distant objects	changes the size of the pupil to control the amount of light getting into the eye	
controls the amount of light getting into the camera	converts energy transferred by light into electrical signals	converts energy transferred by light into nerve impulses	
focuses light	focuses light	hole in the iris that lets light into the eye	
stops light hitting the sensor until a photograph is being taken	transparent covering helps to focus light		



Write down the names of the parts labelled in the diagrams.

A and I _____ B _____ C _____
 D _____ E _____ F _____
 G _____ H _____

Which part of the eye or camera:

a lets light in _____ b focuses light _____
 c changes the energy transferred by light into electrical signals _____
 d changes the energy transferred by light into nerve impulses _____
 e sends nerve impulses to the brain _____

The iris can change size to control how much light gets into the eye. Which of these statements is correct? Tick (✓) two boxes.

- ☐ The iris makes the pupil large if the light is dim.
☐ The iris makes the pupil small if the light is dim.
☐ The iris makes the pupil large if the light is bright.
☐ The iris makes the pupil small if the light is bright.

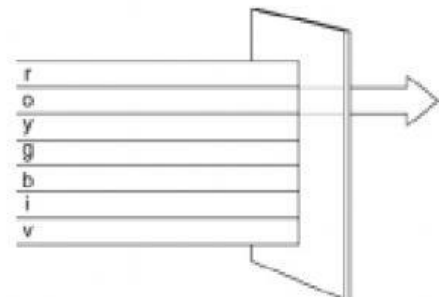
Fill in the gaps in these sentences using words from the box. You can use each word once, more than once or not at all.

dispersion	five	lens	prism	reflection	seven
	spectrum	white	yellow		

Light from the Sun or a light bulb is called _____ light. If white light passes through a _____ it can be split up into a _____. This is called _____. There are _____ colours in the spectrum.

The diagram shows light shining through an orange filter. Complete these sentences using words from the box.

absorbs	filter	orange	prism
reflects	refracts	transmits	



You can make coloured light using a _____. This _____ one colour of light and _____ the rest. For example, an _____ filter absorbs all the colours except orange.

A stage in the theatre uses coloured spotlights at different times during the show. The coloured lights make the performers' costumes appear different colours. For example, a white costume looks red in red light because it reflects all colours, but only red light is reaching it. A green costume looks black in red light because it absorbs red light (it only reflects green light).

Complete the table to show what the different parts of the costumes look like. Some have been done for you.

	Colour in white light	Colour in red spotlight	Colour in blue spotlight	Colour in green spotlight
a	white	red		green
b	red		black	
c	green	black		
d	blue		blue	black
e	black		black	