

CHAPTER 6**Comparing the Functions of
a Human Eye and a Camera****BLM 2-33**

Goal • Reinforce your knowledge of the functions of parts of an eye and parts of a camera.

What to Do

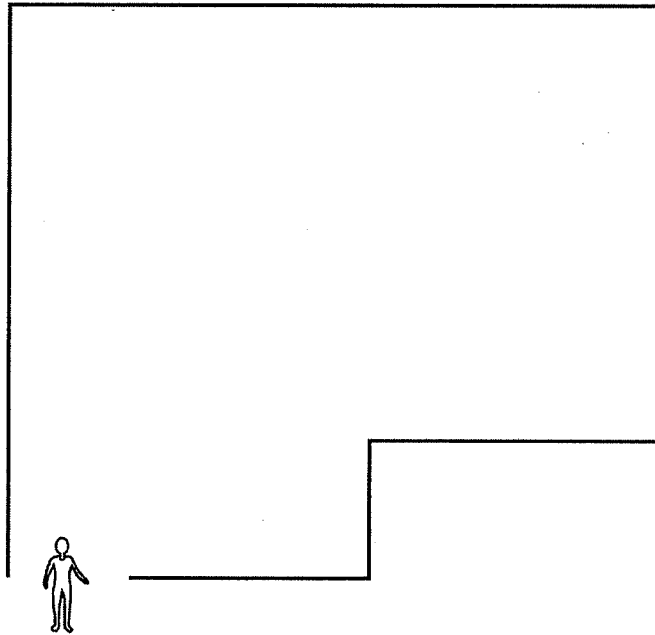
Complete the following table to compare an eye with a camera. Do not write anything in the shaded boxes. For help, review pages 203, 204, and 223 of *BC Science 8*.

Eye		Camera	
Part	Function	Part	Function
		shutter	opens to take a picture
retina			catches the image
	clear covering over the eye	protective glass	lens cover protects the lens
iris		diaphragm	
		automatic brightness adjustment	opens and closes the diaphragm according to brightness of the subject
	focusses the image on the retina		
muscle		focussing ring	
		aperture	hole through which light enters the camera
	transmits signals from light receptors in the retina to the brain		

Goal • Use this worksheet to demonstrate how you could position a plane (flat) mirror to observe most places in a room.

What to Do

The diagram shows the floor plan of a store. You are a security guard, with radio and flashlight, who stands at the position shown, just inside the door. Are there any places you cannot see? Suppose you could install a large mirror (2 cm on this scale) by hanging it from the ceiling or placing it on a wall. Where could you put it to make sure you could see everywhere? Add your mirror to the diagram. Then trace out light rays showing that light from your flashlight could illuminate every portion of every wall. If you are bouncing light off the mirror, make sure you draw the normal and measure your angles carefully.



Going Further

If you have a small mirror, you could build cardboard walls, place the mirror in position, and demonstrate how looking from the position of the person, there is no “blind spot” in the room.