Science 8

Blackline Master

This blackline master package, which includes student worksheets and materials for teachers to make their own overhead transparencies or photocopies, is designed to accompany Open School BC's ***Science 8*** course. The course and blackline master were developed by BC teachers, instructional designers, graphic artists, and multimedia experts.

Please note that the rights to reproduce materials from the *Science 8 Blackline Master* is restricted to the individual purchaser. Teachers may reproduce solely for use with their own classes.

The Science 8 course consists of 4 modules, Science 8 SOS Package, blackline master, and the *Science 8 Media CD*. Science 8 is available in both print and online versions. Science 8 can be purchased as individual components or as a complete resource, ***Science 8 Resource Package***. The following supporting resources are required for print and online versions of the course. All are available from Open School BC.

Textbooks
BC Science 8 ***or*** *BC Science Probe 8*

To order, contact:

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or

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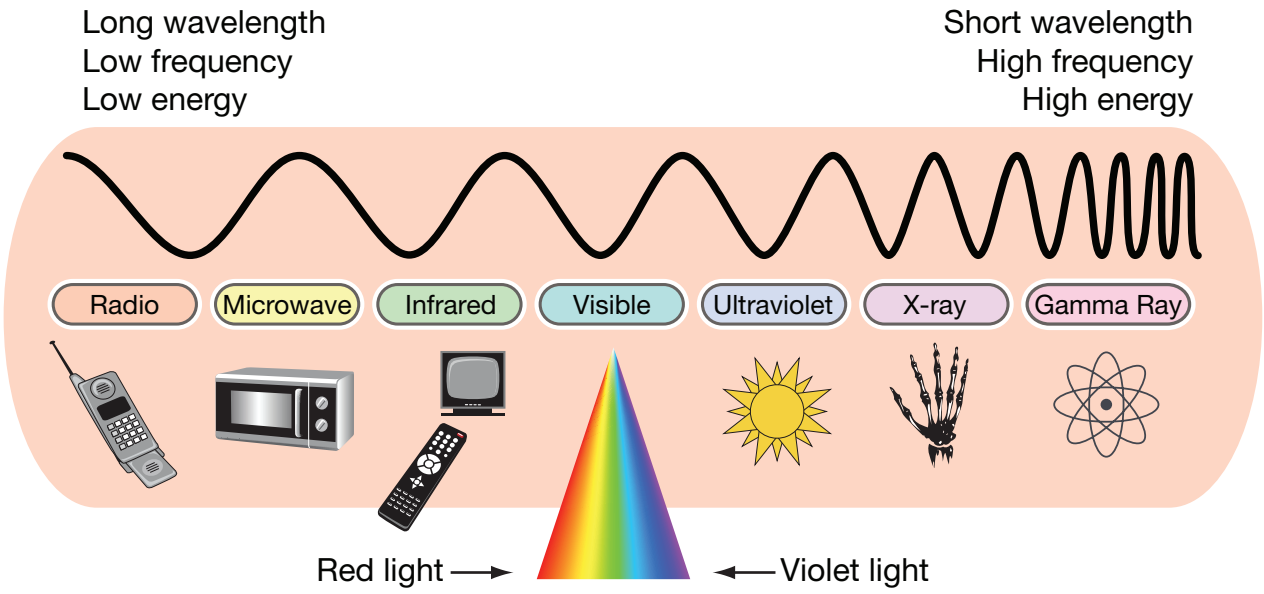
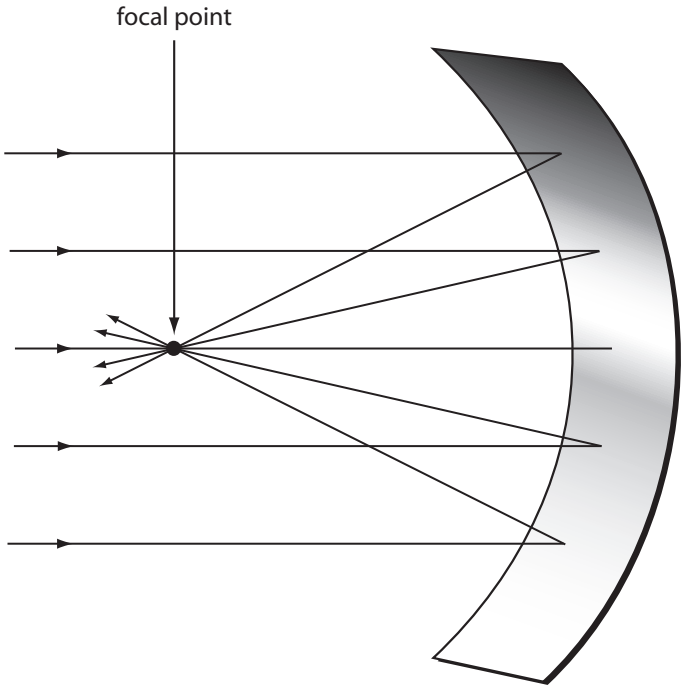
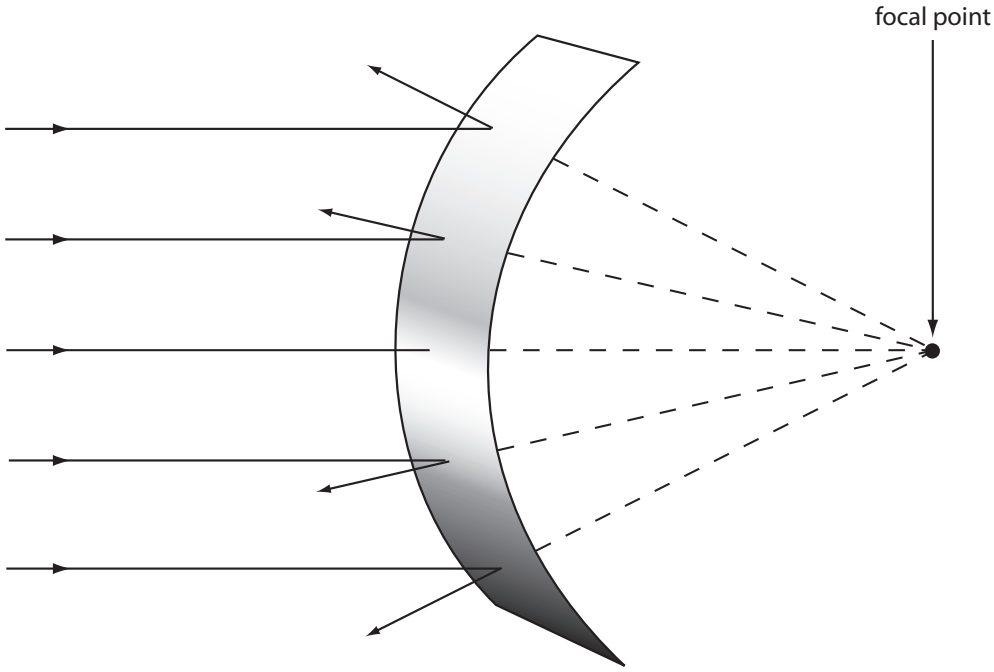
The Electromagnetic Spectrum



Concave Mirrors

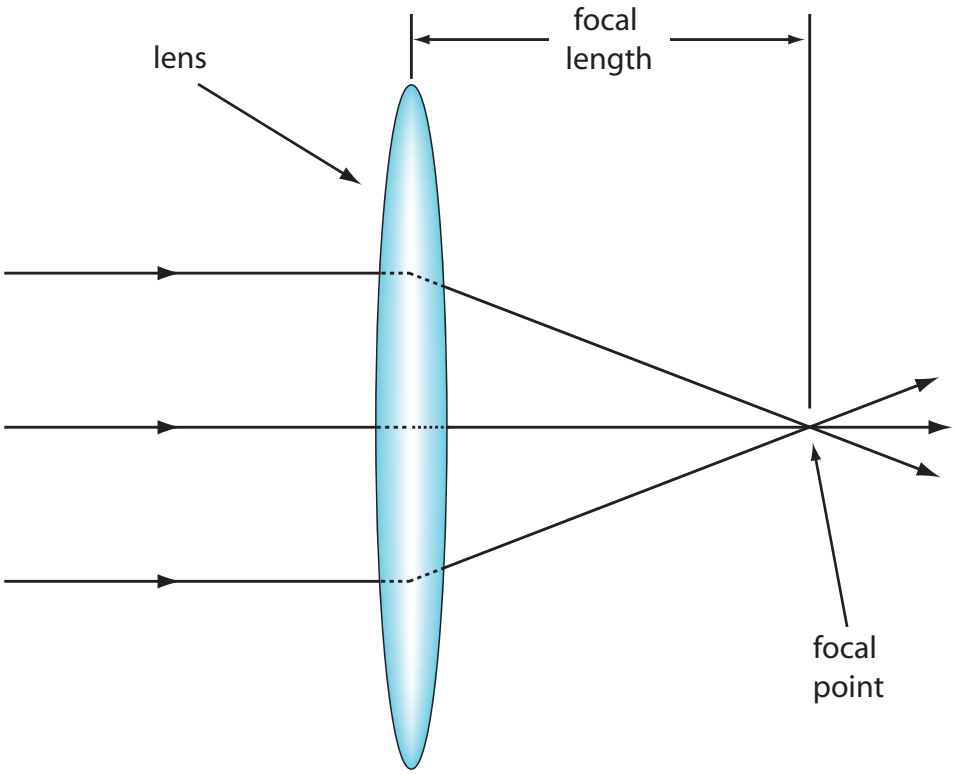


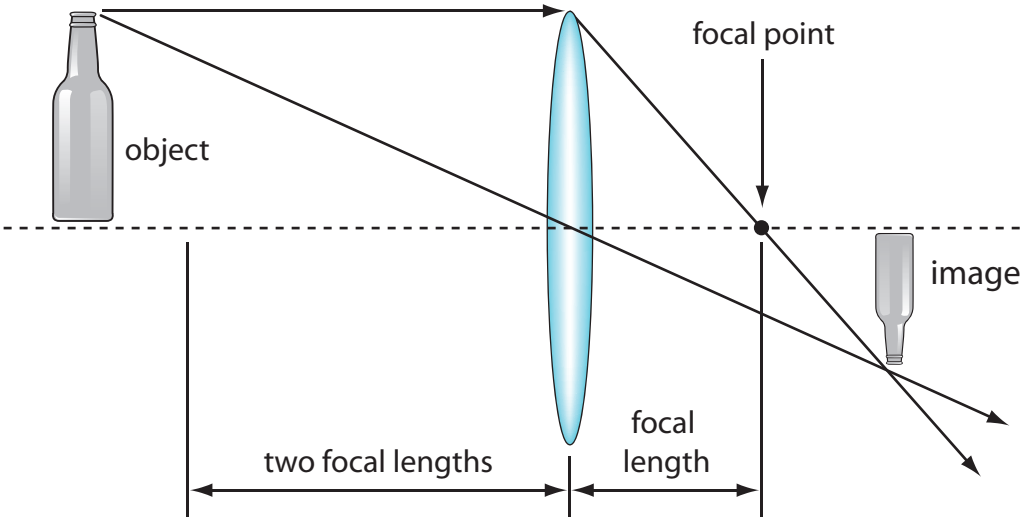
Convex Mirrors



Refraction and Lenses

Convex Lenses

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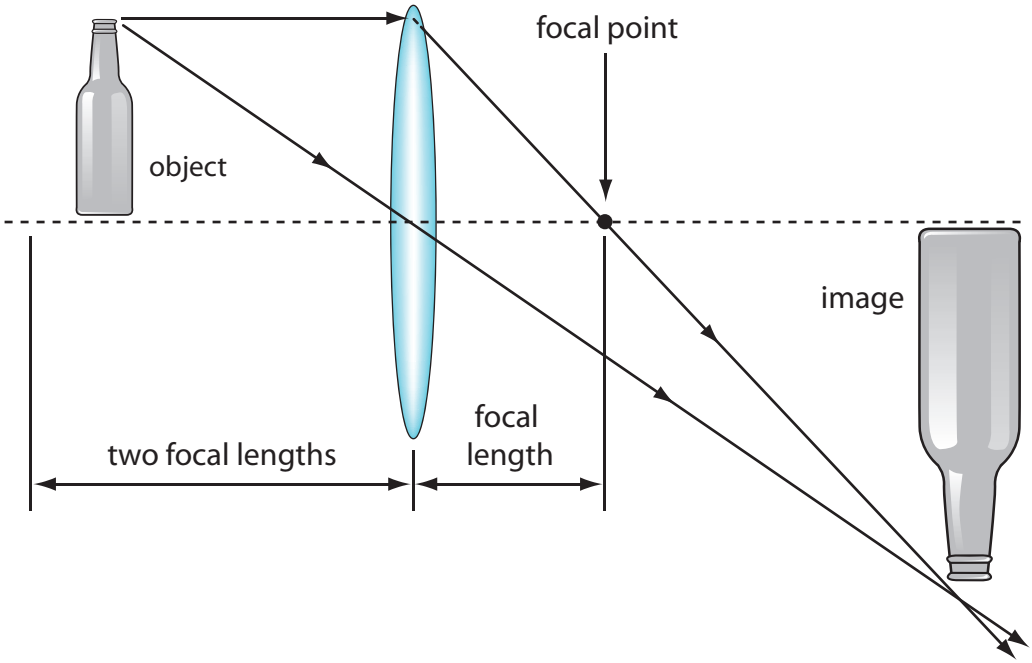

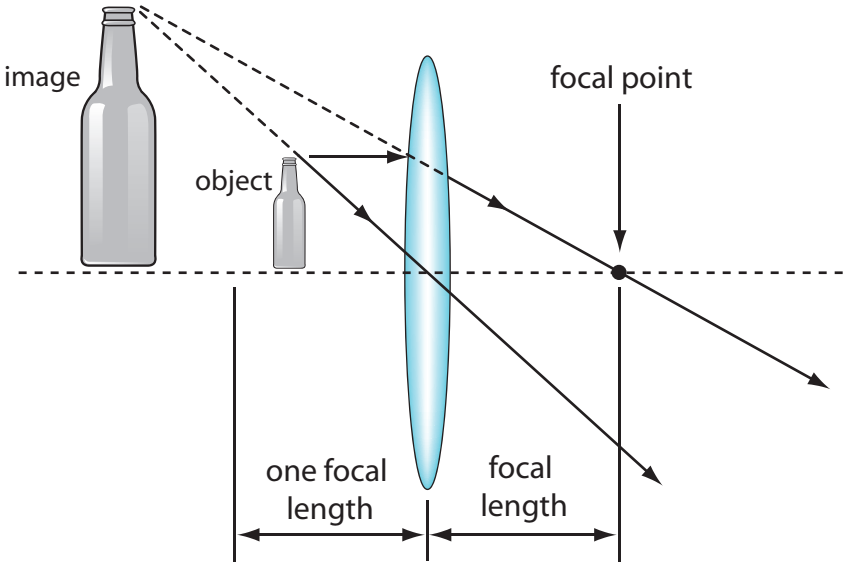
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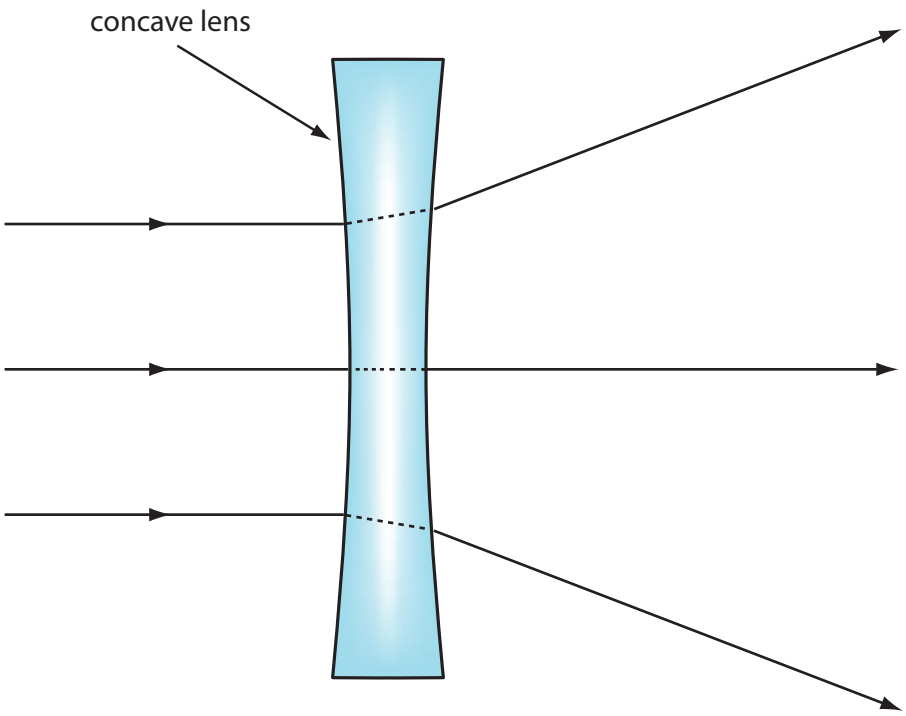
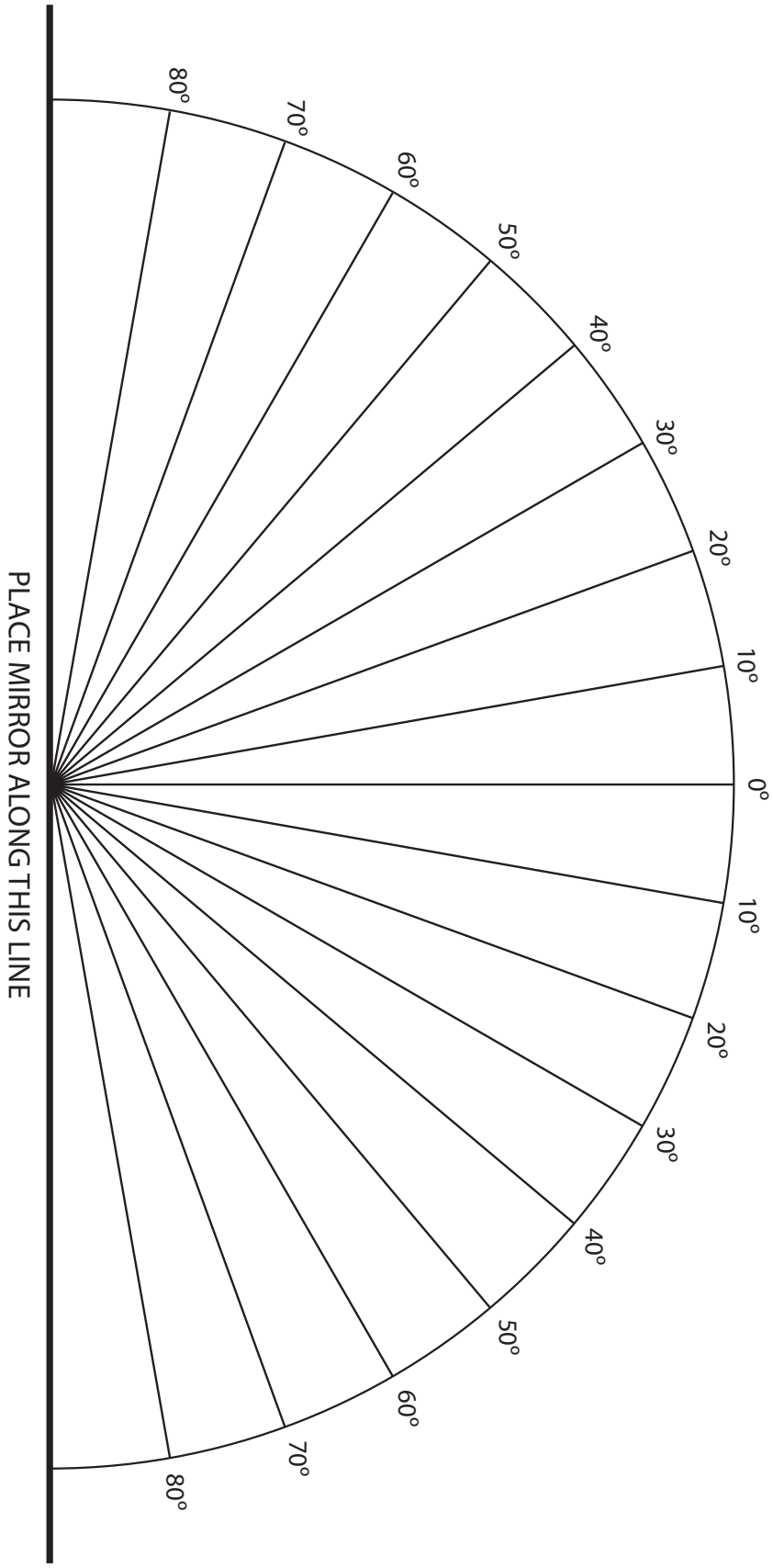
Concave Lenses



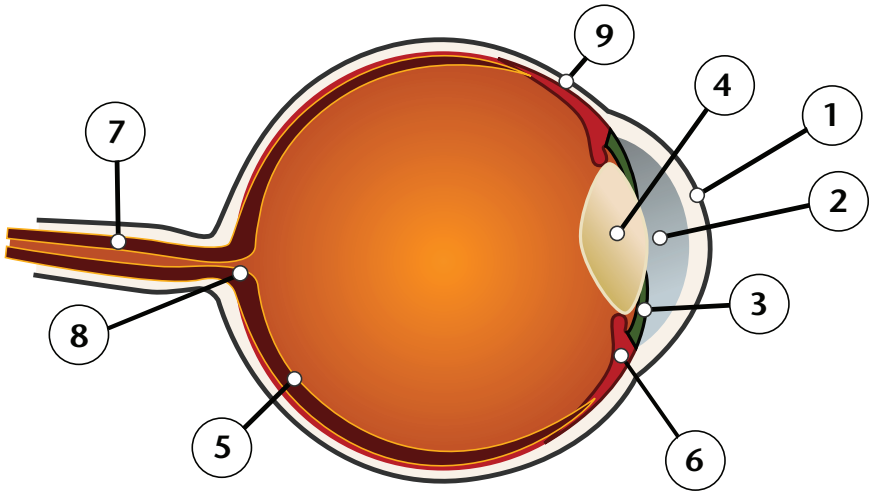
Protractor



Guided Practice 2.3A

Parts of the Eye

1. The major parts of the eye are numbered on the following drawing. Label the parts of the eye on the diagram.



2. Write the letter of the term in Column A beside the correct definition in Column B.

Column A Parts of the Eye	Column B—Function	
1. lens	A. bulged out transparent part at the front of the eye; begins focussing of light rays	
2. retina	B. gateway to the inside of the eye	
3. muscle	C. coloured part of the eye; controls size of pupil so it also controls the amount of light that enters the eye	
4. optic nerve	D. flexible and convex; bends light to focus an image or object onto the retina	
5. pupil	E. contains cone and rod cells that detect light and colour	
6. cornea	F. controls shape of the lens	
7. iris	G. transmits information from the retina to the brain	
8. sclera	H. place where optic nerve and blood vessels attach to the brain; there are no rods or cones located here	
9. blind spot	I. protects the eye and provides a place for muscles to attach so the eye can move and look around	

Presbyopia

Tunnel Vision

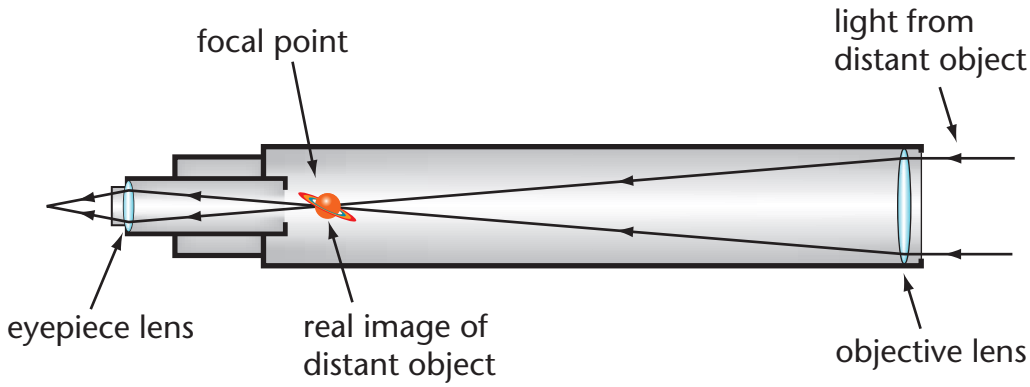
Peripheral Vision

Guided Practice 2.3C
Vision Problems

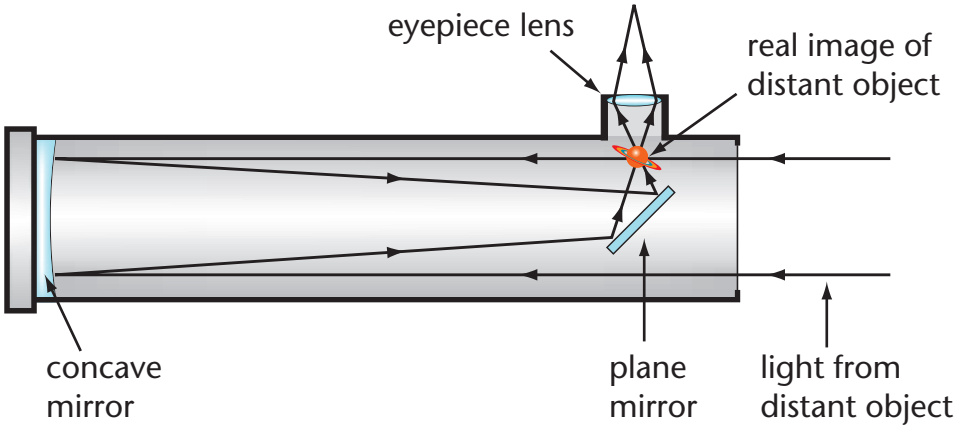
Write the letter of the term in Column A beside the correct definition in Column B. Terms may be used more than once.

Column A	Column B	
A. convex lens	1. lens becomes less flexible as you get older	
B. cataract	2. eyeball is too long; the image is formed in front of the retina	
C. colour blind	3. using high intensity light to alter the shape of the cornea	
D. cylindrical lens	4. a lens that allows hyperopic people to see	
E. astigmatism	5. lens used to treat myopia	
F. hyperopia	6. irregularly shaped cornea	
G. myopia	7. can't tell whether or not the stop light is red	
H. concave lens	8. your eyes hurt after being on the water on a sunny day	
I. snow blind	9. lens to treat astigmatism	
J. presbyopia	10. lens becomes cloudy; can lead to blindness	
K. laser surgery	11. eyeball is too short; image forms behind retina	
	12. can be caused by diabetes	
	13. image forms at more than one point on the retina	

Refracting Telescope

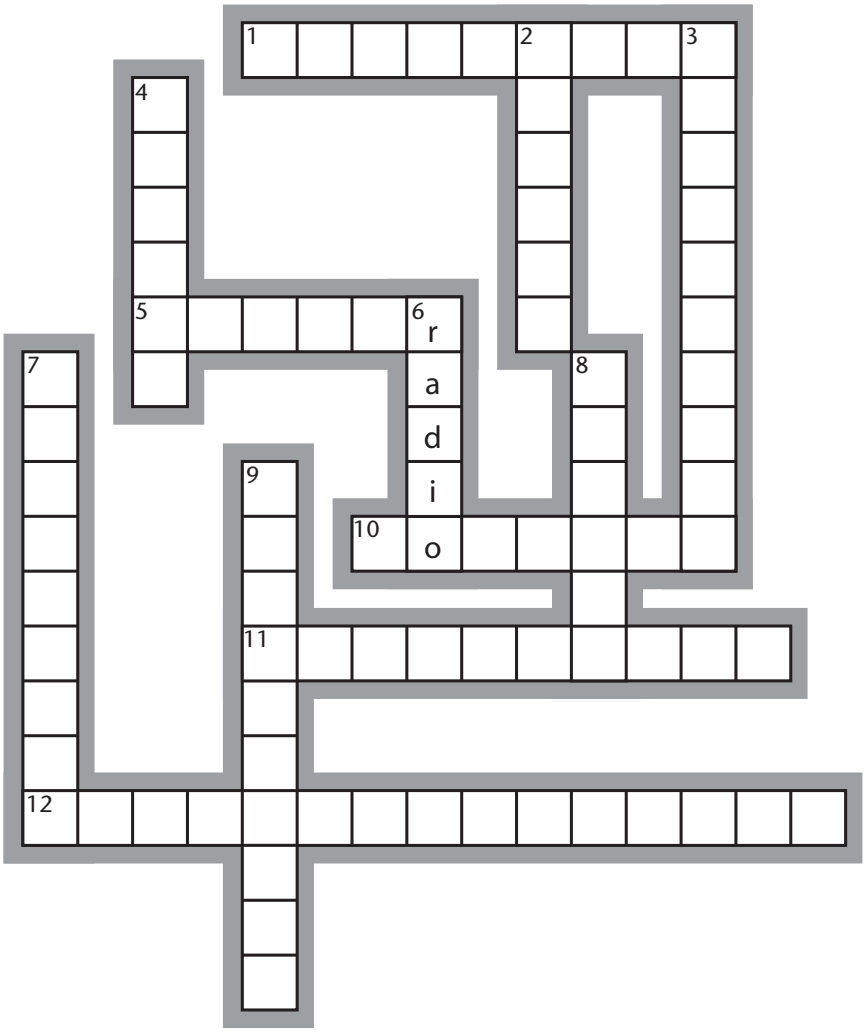


Reflecting Telescope



Section Assignment 2.3 Part A: Optics Crossword

Try your hand at this crossword puzzle. Do the work in the space provided.



Across

1. Part of the camera that controls the amount of light let in
5. The lens you look through in a telescope, binocular, or microscope
10. Refracting telescopes use this kind of mirror
11. The inventor of the optical light telescope
12. The spectrum that includes light and radio waves

Down

2. The back part of the eye
3. Enables us to see very small things
4. Invented the reflecting telescope
6. Waves given off by pulsars
7. The lens that gathers light in optical devices
8. A beam of electrons
9. Russia is given credit for building the largest of these telescopes in 1974