

**Chapter 14**

Use with Section 4

**REINFORCEMENT**

**● Microscopes, Telescopes, and Cameras**

Answer the following questions about microscopes with complete sentences.

- 1. What is an objective lens? \_\_\_\_\_  
\_\_\_\_\_
- 2. What is an ocular lens? \_\_\_\_\_
- 3. Explain how a microscope allows the viewer to see very small objects.  
\_\_\_\_\_
- 4. Why is it important to know that the lenses in microscopes are convex lenses?  
\_\_\_\_\_

The terms in the box describe reflecting or refracting telescopes. Write the terms that best describe each type in the correct column. Some terms may appear in both lists.

heavy weight	gathers as much light as possible	enlarges gathered light
convex lens	reflects gathered light	sags when too large
secondary mirror	more expensive	does not sag
less expensive	concave mirror	lighter weight

**Refracting Telescope**

**Reflecting Telescope**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Answer the following questions about cameras, using complete sentences.

- 5. Your friend wants to build a camera and asks you to pick up a concave lens at the hobby shop. You say that is the wrong kind of lens. Explain why you say this and what is important to know about a convex lens in a camera.  
\_\_\_\_\_
- 6. What is special about camera film? \_\_\_\_\_
- 7. What happens if too much light falls on a film? Too little? \_\_\_\_\_  
\_\_\_\_\_
- 8. What is the purpose of a diaphragm in a camera? \_\_\_\_\_  
\_\_\_\_\_
- 9. What is focal length? \_\_\_\_\_