

Chapter 18 The Electromagnetic Spectrum and Light

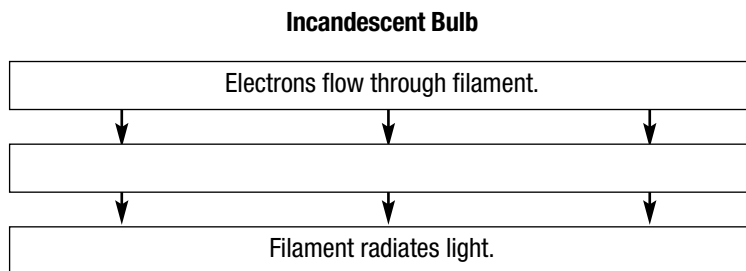
Section 18.5 Sources of Light

(pages 558–562)

This section discusses the major sources of light and their uses.

Reading Strategy (page 558)

Flowchart Complete the incandescent bulb flowchart. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.



1. Objects that give off their own light are _____.
2. List six common sources of light.
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
 - f. _____

Incandescent Light (page 558)

3. The light produced when an object gets hot enough to glow is _____.
4. As electrons flow through an incandescent light bulb, the _____ heats up.
5. Is the following sentence true or false? To increase the life of the filament, incandescent light bulbs contain oxygen at very low pressure. _____
6. Most of the energy given off by incandescent bulbs is in the form of _____.

Fluorescent Light (page 559)

7. What happens in the process of fluorescence? _____

8. A solid material that can emit light by fluorescence is called a(n) _____.
9. Fluorescent bulbs emit most of their energy in the form of _____.
10. Is the following sentence true or false? Incandescent bulbs are more energy efficient than fluorescent bulbs. _____

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Laser Light (page 560)

11. A laser is a device that generates _____.
12. The letters in the word *laser* stand for
 - l _____
 - a _____
 - s _____
 - e _____
 - r _____.
13. What is coherent light? _____

14. Why does coherent light have a relatively constant intensity? _____

Neon Light (page 561)

15. How is neon light emitted? _____

16. List three gases used to produce neon light.
 - a. _____
 - b. _____
 - c. _____
17. Why do different types of neon light glow in different colors? _____

Sodium-Vapor Light (page 562)

18. Sodium-vapor lights contain a mixture of _____
and a small amount of solid _____.
19. Explain what happens when an electric current passes through a sodium-vapor bulb. _____

Tungsten-Halogen Light (page 562)

20. Explain how a tungsten-halogen light bulb works. _____

