

Directed Reading B *continued*

12. Why can a light source be seen in the dark?

Your eyes detect the direct rays of light being produced by the light source.

13. Objects that produce visible light are called **luminous**.

14. An object that can be seen but is not a light source is

illuminated.

15. Why are you able to see an illuminated object?

Light rays are being reflected off the object and then the rays go into your eye.

ABSORPTION AND SCATTERING

absorption 16. The transfer of light energy to particles of matter is called

- a. illumination.
- b. scattering.
- c. absorption.
- d. reflection.

scattering 17. The interaction of light with matter that causes light to change its energy, direction of motion, or both is called

- a. reflection.
- b. scattering.
- c. absorption.
- d. incidence.

18. What causes the clear sky to look blue?

Blue light has a shorter wavelength and more energy. It is able to scatter more throughout the gas of the atmosphere allowing the gas to appear blue.

LIGHT AND MATTER

transmission 19. The passing of light through matter is called

- a. transmission.
- b. scattering.
- c. absorption.
- d. incidence.

Directed Reading B *continued*

20. When you look through a glass window, why can you see objects that are outside?

Most of the light rays are transmitted through the window and can be detected by your eyes

21. When you look through a glass window, why can you see the glass and your reflection?

Some of the light rays are reflected, and the window acts partially like a mirror

22. Why might a glass window feel warm when you touch it?

The light rays going into it and getting absorbed by it may make the glass molecules move faster and then it get's hotter.
Mostly it is the gas inside the car that gets warmer and warms up the windshield

23. Matter that allows visible light to be easily transmitted is

transparent

24. Matter that transmits light and scatters the light as it passes through the

matter is translucent

25. Matter that does not transmit any light is opaque

Match the correct description with the correct term. Write the letter in the space provided.

transparent **26.** glass

translucent **27.** wax paper

opaque **28.** metal

a. opaque

b. translucent

c. transparent