

Directed Reading B *continued*

COLORS OF OBJECTS

29. What do humans see different wavelengths of light as?

different colors

30. What is the color that an object appears to be determined by?

It is determined by the wavelength of light that is reflected by the object

31. What happens when white light strikes a colored opaque object?

some colors are absorbed and at least one color wavelength is reflected
The color of the object is the color that was not absorbed.

32. What colors of light are reflected by an opaque white object?

all colors are reflected to appear white

33. What colors of light are absorbed by an opaque black object?

all colors are absorbed

34. Why is ordinary window glass colorless in white light?

It is colorless because almost all of the light passes through
No individual wavelength is uniquely reflected by the glass

35. What color of light do you see when you look through a colored transparent or translucent object?

When white light passes through a filter that is transparent or translucent, then only one color is allowed to pass through, ex. red plastic filter for brake lights of a car.

36. What happens to the colors of light that are **not** reflected by or transmitted through a transparent or a translucent object?

The NOT transmitted colors will be absorbed by the filter

Directed Reading B *continued*

PIGMENTS AND COLOR

- b.** **37.** What is a pigment?
- a.** a material that refracts colors of light
 - b.** a material that gives a substance its color
 - c.** a material that gives a substance its texture
 - d.** a material that transmits colors of light

38. Give two examples of pigments.

ink and melanin and chlorophyll

39. What happens when you mix pigments together? you get the color black

40. Mixing pigments involves a process called color subtraction

41. Name the three primary pigments that can be combined to make any other color.

Cyan, Magenta and Yellow
