3.3 Assessment

Match each term on the left with the best descriptor on the right. Each descriptor may be used only once.

Term	Descriptor
1. ____ reflection	A. This occurs as light passes through an object.
2. ____ refraction	B. The process in which light changes direction as it travels from one medium into another.
3. ____ scattering	C. This occurs when light bounces off a surface and travels in another direction.
4. ____ absorption	D. Responsible for dark surfaces getting hot on sunny days.
5. ____ transmission	E. Reason why objects seen through translucent materials are blurry.

Circle the letter of the best answer for questions 6 to 14.

6. Which of the following objects will transmit the most light?

A. a clear glass window

B. a chunk of gold

C. a piece of wood

D. a white piece of paper

7. Which of the following objects will absorb the most light?

A. sunglasses

B. a black hockey puck

C. a white stone

D. a clear plastic bag

8. Which of the following objects is the least opaque?

A. a tent

B. a granite counter top

C. a plastic sandwich bag

D. a fabric shower curtain

9. A pencil in a glass half full of water appears broken at the water line due to which process?

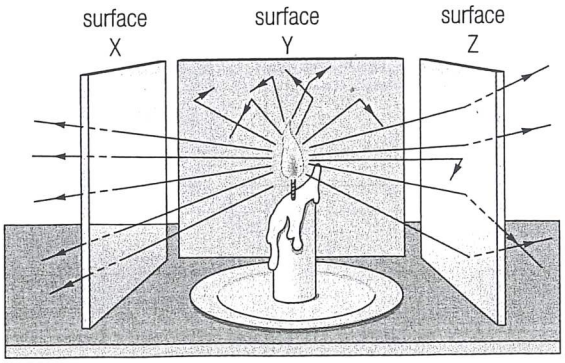
A. reflection

B. refraction

C. absorption

D. transmission

Use the following diagram to answer questions 10 to 13.



10. Which of the surfaces is transparent?

A. Surface X

B. Surface Y

C. Surface Z

D. Surface Y and Surface Z

11. Which of the surfaces transmits the fewest light rays?

A. Surface X

B. Surface Y

C. Surface Z

D. Surface X and Surface Z

12. Which of the surfaces is most likely made of frosted plastic or glass?

A. Surface X

B. Surface Y

C. Surface Z

D. Surface X and Surface Y

13. Which statement correctly describes Surface Y?

A. It transmits all light.

B. It scatters all light.

C. It absorbs all light.

D. It allows no light to pass through it.

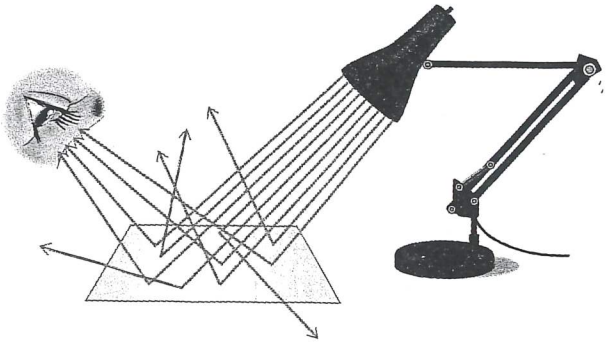
14. Which of the following processes is shown in the diagram on the right?

A. refraction

B. reflection

C. absorption

D. transmission



15. Complete a spider chart/map for the different ways that light interacts with different materials and surfaces. The graphic organizer has been partially completed to help guide you.