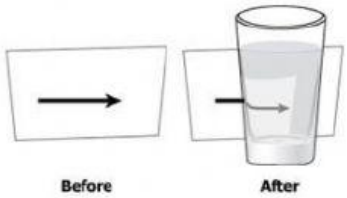
4.P.4A.4 Light Behavior Indicator Assessment

Name: _____

1. Megan bought an orange scarf. Which statement is true about her scarf?

A. Megan's scarf is dispersing orange light.
B. Megan's scarf is absorbing orange light.
C. Megan's scarf is refracting orange light.
D. Megan's scarf is reflecting orange light.

2. Faith completed an activity to find how objects appear when viewed through a glass of water. She drew a dark arrow on a sheet of paper, and then she viewed the arrow through the glass of water. Faith then drew a diagram of her observation.



Which property of light is most responsible for the observed change?

A. absorption
B. brightness
C. reflection
D. refraction

3. A student conducted an experiment to see how refraction would affect the appearance of a plastic straw in a glass of water. The student conducted his experiment by placing a plastic straw into a glass that was half filled with water.

Which observation did the student most *likely* make about refraction?

A. As light passes from the water to the air, it bends, causing the straw to look bent.
B. As light passes from the water to the air, it stretches, causing the straw to appear longer.
C. As light passes from the water to the air, it shortens, causing the straw to appear shorter.
D. As light passes from the water to the air, it widens, causing the straw to appear wider.

4. A student sees that an apple appears red and a leaf appears green when viewed in white light. Which properties of light allowed the student to view the colors of the apple and leaf?

A. absorption only
B. refraction and reflection
C. reflection and absorption
D. reflection, refraction, and absorption

5. Eli did an experiment. He looked at some colored wooden blocks in three different places and he recorded his observations. First, he looked at the blocks in sunlight. The blocks had bright colors. Then he looked at the same blocks under a lamp in a dark room. The blocks still had bright colors. Next, he placed the blocks in a cardboard box that had a small hole that he could look through. Eli recorded that he could not see any of the blocks inside the box.

Why could Eli NOT see the blocks inside the box?

A. The cardboard of the box absorbed all of the light that the blocks made so none could go through the hole.
B. The hole in the box was too small for light from the blocks to pass through.
C. The cardboard of the box absorbed all of the outside light so the blocks could not reflect light to his eye.
D. The box reflected darkness to his eye that was stronger than the light.

6. Which is the BEST example of an object that refracts light?

A. eyeglasses
B. mirrors
C. silver bowl
D. television sets

7. Which part of a camera refracts light?

A. the lens
B. the mirror
C. the film plane
D. the viewfinder

8. What do the tinted lenses of sunglasses do to the UV rays of the Sun?

A. absorb
B. convert
C. reflect
D. refract

9. Which of these objects is visible because it reflects light toward the eye?

A. burning candle
B. flashlight bulb
C. glowing campfire log
D. shiny metallic balloon

10. When a mirror is placed by a fish bowl with a beta fish swimming inside, the beta fish sees what appears to be another fish. This occurs because of _____

A. absorption.
B. refraction.
C. reflection.
D. diffraction.

11. Which process causes light to bend and form a rainbow?

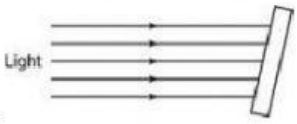
A. frequency
B. absorption
C. refraction
D. reflection

12. Eyeglasses help a nearsighted person see as a result of

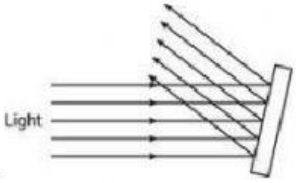
A. absorption.
B. diffraction.
C. reflection.
D. refraction.

13. Which of the following diagrams shows light being reflected?

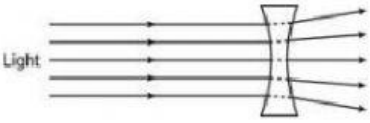
A.



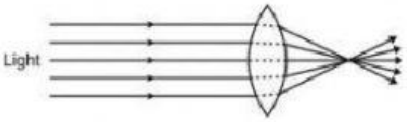
B.



C.



D.



14. Which object BEST reflects light?

A. gray door
B. white floor
C. black sweater
D. brown carpet

15. The picture below shows a straw inside a glass of water. The straw appears to bend when viewed inside a glass of water because light is being

A. reflected.
B. refracted.
C. absorbed.
D. compressed.