Name _____ Date _____

Light and How We See: Finding a Backpack in the Dark

Directions: Read about Rosa's dark bedroom. Then answer each question.

The Backpack in the Dark

At bedtime, Rosa switched off her lamp. Her room went dark, and she could not see the red backpack on her floor. When she switched the lamp back on, she could see the backpack again. What changed?

The backpack does not make light, but the lamp does. Things that give off their own light, such as the Sun, a lamp, or a flashlight, are **light sources**. Some of the lamp's light hit the backpack and bounced off. When light bounces off something, it **reflects**. Some of the reflected light traveled into Rosa's eyes.

You see an object when light from it enters your eyes. Your eyes take in light. They do not send out light to help you see. The Moon is not a light source either. We see the Moon because sunlight reflects off it and reaches our eyes.

1. Which path did the light take that let Rosa see her backpack?

A. lamp → backpack → Rosa's eyes
B. backpack → lamp → Rosa's eyes
C. lamp → Rosa's eyes → backpack
D. Rosa's eyes → backpack → lamp

2. Which of these is a light source?

A. A mirror
B. A shiny spoon
C. A bike reflector
D. A burning candle

3. Why couldn't Rosa see her backpack after she switched off the lamp?

A. Too little light was bouncing off the backpack and reaching her eyes.
B. The backpack disappeared until the lamp came back on.
C. Her eyes stopped working when the room got dark.
D. Darkness covered the backpack like a blanket.

4. Rosa's little brother says he sees things by shooting light out of his eyes. Which detail from the passage best shows that he is wrong?

A. Rosa's backpack is red.
B. The backpack was on the floor.
C. A flashlight is a light source.
D. Rosa could not see her backpack after she switched off the lamp.

5. Use the word bank to finish the sentences about the Moon.

Word bank
melted • Moon • Sun • reflected

On a clear night, Rosa looks up at the bright Moon. The Moon gives off no light of its own. The light Rosa sees from the Moon started at the _____. It _____ off the Moon and then traveled to her eyes.

6. At night, a flashlight beam shines on a cat, and the cat's eyes seem to glow. Where does that glow come from?

A. Light that the cat's eyes make on their own

B. Light the cat's eyes stored up during the day

C. Light from the Moon trapped inside the cat's eyes

D. Flashlight light reflecting off the inside of the cat's eyes

7. With the lamp on, Rosa and her dad stand on opposite sides of the room, and both of them can see the backpack. What does this tell you about the light that bounces off the backpack?

A. The backpack makes its own light for each person.

B. Her dad's eyes send light to the backpack so he can see it.

C. All of it travels into Rosa's eyes.

D. Some of it travels toward Rosa, and some travels toward her dad.

8. What would happen if Rosa's lamp were on, but she put on a thick blindfold that blocks light?

A. She could not see the backpack, because its reflected light could not reach her eyes.

B. The backpack would stop reflecting light.

C. The lamp would stop giving off light.

D. She could still see the backpack, because it gives off its own light.