

Light Clues

Use observations to explain how light interacts with materials.

S4P1 "Obtain, evaluate, and communicate information about the nature of light and how light interacts with objects."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline only sentences that explain whether light passes through, scatters, is blocked, or reflects from an object. In each underlined sentence, circle every phrase that names the light action.

Maya's Flashlight Test

- ① At the science table, Maya shines a flashlight toward three objects: a clear plastic lid, wax paper, and a wooden block. Light travels from the flashlight to each object. The clear lid lets most light pass through it. Maya can see the flashlight beam on a white card placed behind the lid. This evidence shows that clear materials are transparent.
- ② Wax paper does not let an image show clearly. It scatters light in many directions. On the card behind the wax paper, Maya sees a dim, blurry glow instead of a sharp beam. This observation supports the claim that wax paper is translucent. Translucent objects let some light through, but they do not make a clear image.
- ③ The wooden block prevents light from passing through it. Little or no light reaches the card behind the block. Maya can still see the block from the side. Light reflects from the block into her eyes. These observations provide evidence that the block is opaque. Opaque objects do not let light pass completely through them.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What observation is evidence that the clear plastic lid lets most light pass through it?

2 What does wax paper do to light, and what does Maya observe on the card?

3 Compare the evidence from the card behind the clear lid with the evidence from the card behind the wooden block.

4 How can Maya see the wooden block from the side even though light does not pass through it?

3 YOUR TURN _____ Your own words

Choose an object not named in the reading. Write exactly three sentences: predict how it will interact with flashlight light, describe what you would observe on a card behind it, and use that evidence to classify it as transparent, translucent, or opaque.

PART 1 • READ AND MARK

Underline only sentences that explain whether light passes through, scatters, is blocked, or reflects from an object. In each underlined sentence, circle every phrase that names the light action. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What observation is evidence that the clear plastic lid lets most light pass through it?	Maya sees the flashlight beam on the white card behind the lid.
2	What does wax paper do to light, and what does Maya observe on the card?	Wax paper scatters light in many directions. Maya sees a dim, blurry glow instead of a sharp beam.
3	Compare the evidence from the card behind the clear lid with the evidence from the card behind the wooden block.	Behind the clear lid, Maya sees a flashlight beam. Behind the wooden block, little or no light reaches the card.
4	How can Maya see the wooden block from the side even though light does not pass through it?	Light reflects from the block into her eyes.

PART 3 • YOUR TURN (SAMPLE ANSWER)

A metal spoon blocks light from passing through it. A card behind the spoon would have a dark area, so the spoon is opaque. I could see the spoon because light reflects from its surface into my eyes.

Accept answers that use a different object and make a scientifically sound prediction about light transmission, the card observation, and the material classification. For opaque objects, accept that light may be reflected, absorbed, or both, as long as the student states that light does not pass through the object.