

1. Fill in the blanks using the right words from the bracket.

(straight, beam, refraction, gives, prism, reflection, enters)

Light source is an object that _____ off light.

A band of light is called _____ of light.

We can see a light source when the light from the source _____ into our eyes.

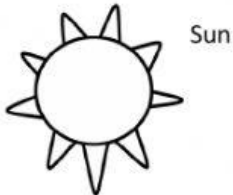
Light travels through a _____ path.

Bouncing of light from a shiny surface is called _____

When light moves from one medium into another it changes its direction which is called _____ of light.

When white light passes through a _____ it separates into different colors.

2. Explain how the boy in the picture below can see the ball.



Sun



Boy

Ball

3. State whether following materials are transparent, translucent or opaque.

Air _____

Water _____

Cardboard _____

Frosted glass _____

Wood _____

Wax paper _____

Ceramic _____

Clear glass _____

4. Shadow of an opaque object is seen in the picture below.



Flash light



Opaque
object



Screen

A. State what will happen to the shadow if the flash light is moved closer to the opaque object.

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B. State what will happen to the shadow if the opaque object moved closer to the screen.

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5. A signpost stand seen in the picture with its shadow. Explain why its shadow changes throughout the day.



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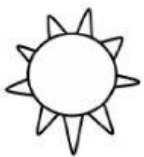
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6. Explain why the eye in the picture below sees the apple in red color.



Sun



Eye



Red apple

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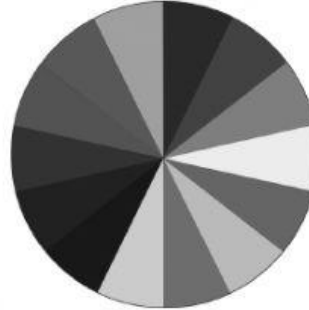
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7. The disc in the picture is called Newton's Disc. It is painted into different colors. State what will happen if the disc will be rotated around its center at very high speed?



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8. State whether following expressions are true or false.

If an object reflects little or no light it is seen in black.

If an object reflect all the light and absorbs very little, it is seen in white. _____

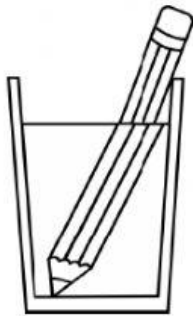
If we wear white clothes in a sunny day in summer that will help us to stay cool. _____

Transparent objects don't allow light to pass through them. _____

Translucent objects allows light partially to pass through them. _____

Light travels at different speeds in different mediums.

9. When a pencil is placed in a glass of water it looks as if it is bent. State what is the reason for that.



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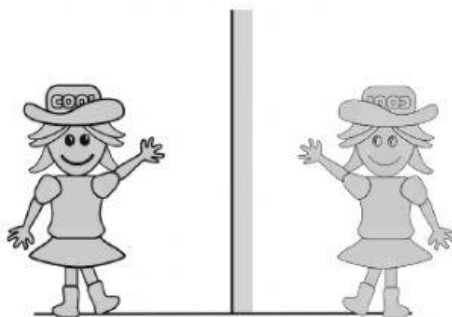
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10. Formation of an image on the plane mirror is illustrated below. Write down the characteristics of an image that is formed on a plane mirror.



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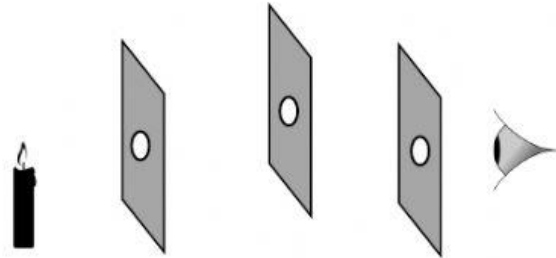
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11. Cardboards with holes placed between the eye and candle. Explain why the eye in the picture can not see the light from the candle.



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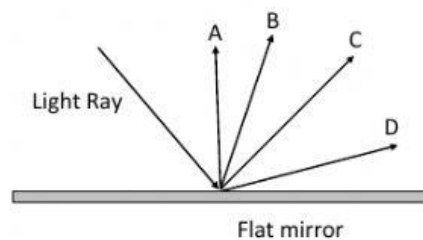
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12. A light ray is seen in the diagram as it hits the surface of a flat mirror. Which one of the lines A, B, C or D could represent the route that the light ray will travel after it is reflected? Give a reason for your answer.



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