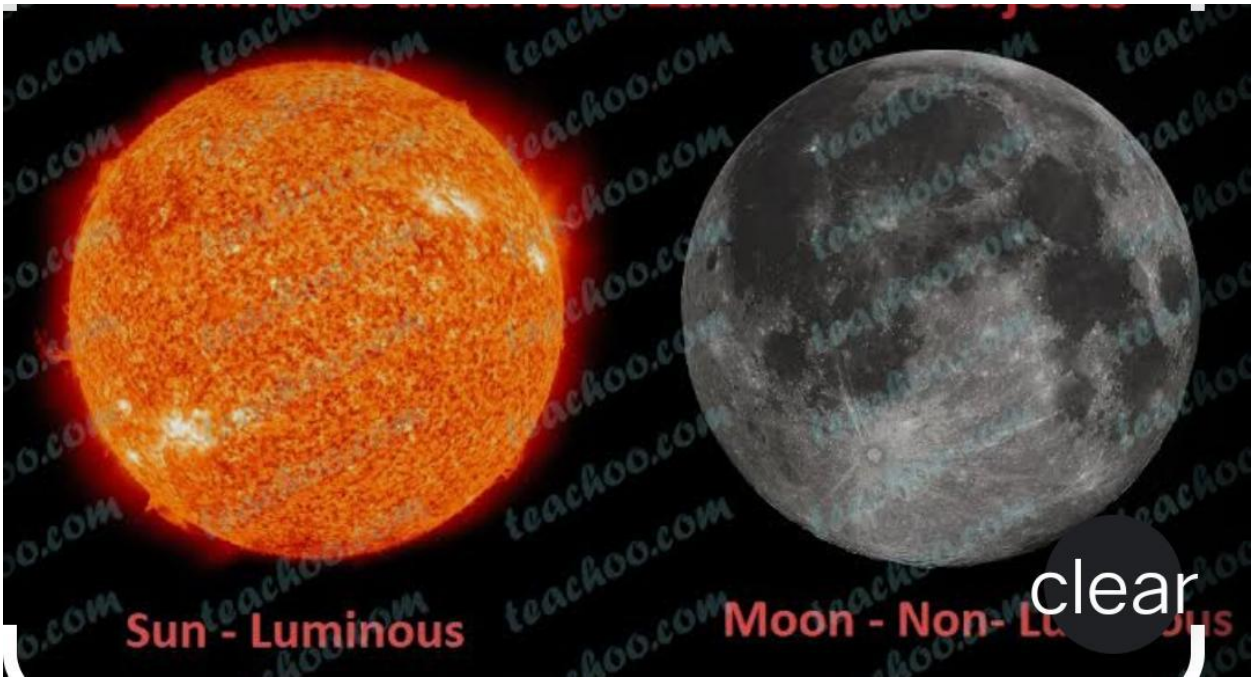
STD VI

SCIENCE

LIGHT

Q1. What are luminous object?

A1. Objects that emits (gives out) light of their own are known as luminous object. Eg. Sun , bulb.



Q2. How do we see non luminous object?

A2. We see non-luminous objects with the help of luminous object.

Eg. We see the moon with the help of sunlight.

Q3. What helps us see a stream of light entering through a gap in the curtains of a room?

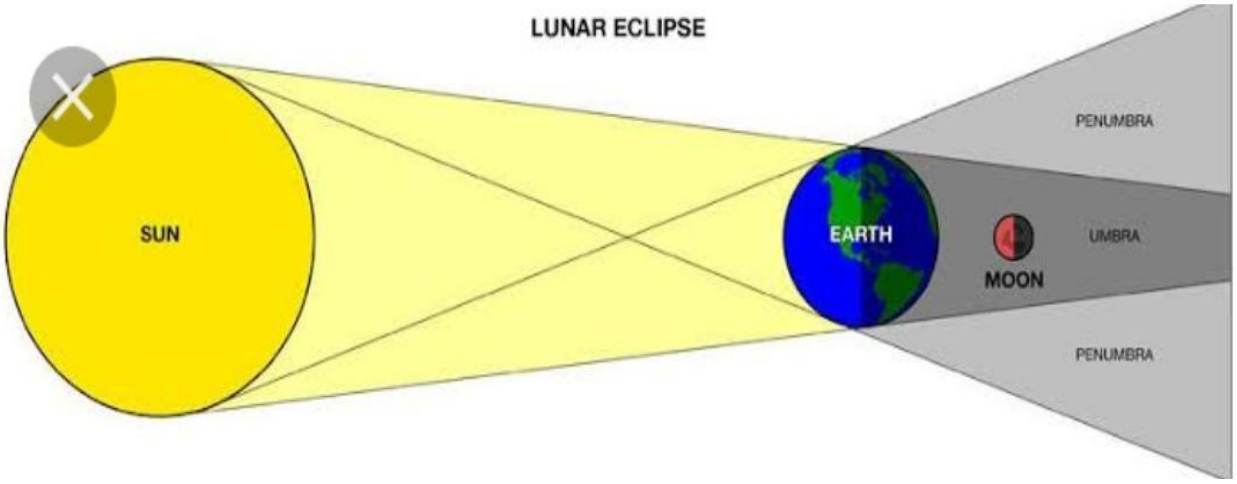
A3. Reflection by the particles of dust in the air helps us see the stream of light.

Q4. What is a shadow?

A4. A shadow is a dark space behind an opaque object where light doesn't reach.

Q5. What is lunar eclipse?

A5. When the Earth comes in between the sun and the moon and casts its shadow on the moon,is known as lunar eclipse.



Q6. Define reflection.

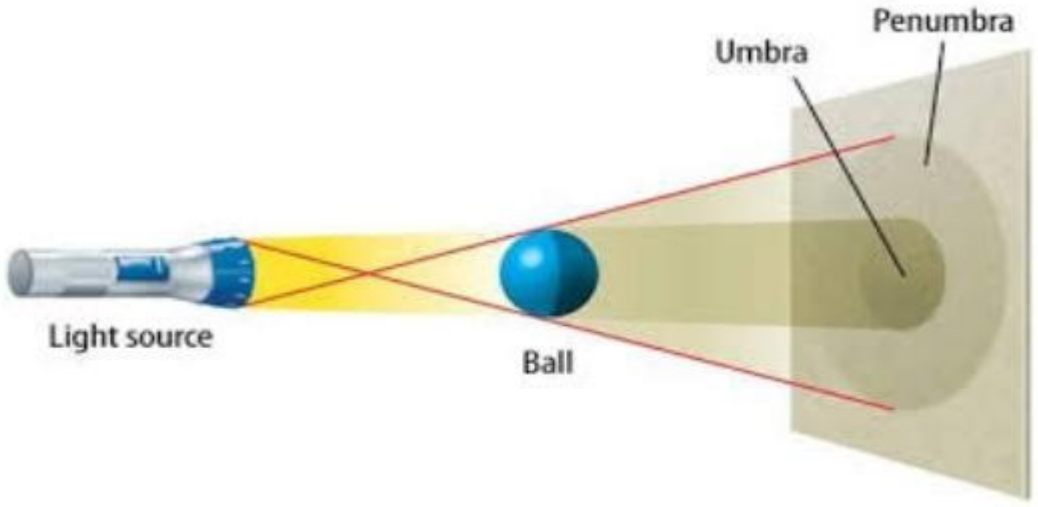
A6. The bouncing off of light when it falls on a surface , is called reflection.

Q7. Something strange happens when a mirror forms an image. What is it?

A7. The image formed by a mirror is laterally inverted ,means the left appears to be right and vice versa.

Q8. Why is a shadow formed when an opaque object is placed in the path of light?

A8. A shadow is formed when an opaque object is placed in the path of light because the opaque object does not allow light to pass through it and thus a shadow is formed.



Q9. What is the colour of a shadow?

A 9. A shadow is always black, irrespective of the colour of the object.

Q10. How does the size of the shadow of an object change as the distance between the source of light , the object and the screen are changed?

A10. The size of a shadow on a screen increases as the distance between the object and the screen also increases.

Q11. How are mirrors made?

A11. Mirrors are made of polished glass , with a layer of metal (silver, aluminium) at the back.

Q12. How does a mirror form a image?

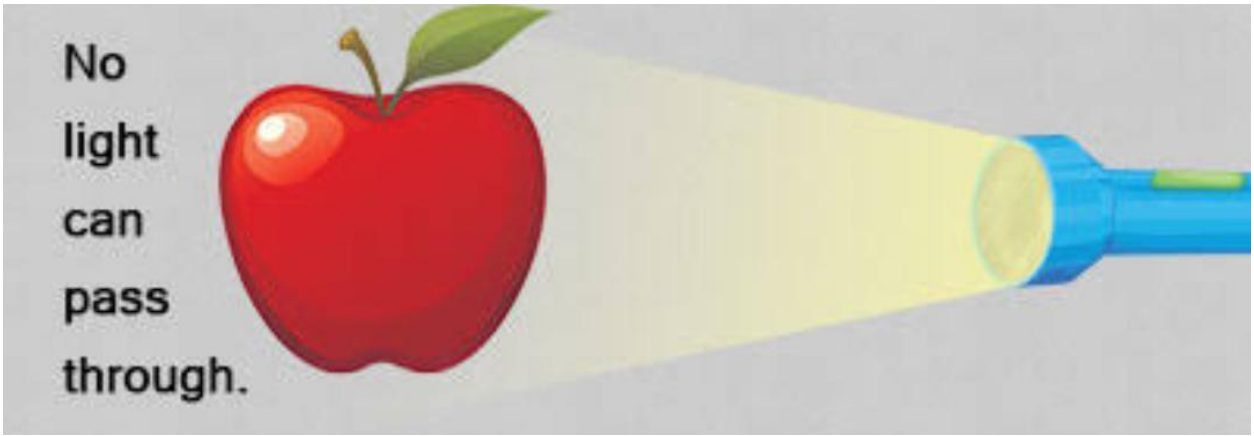
A12. A mirror reflects light coming from an object and when this reflected light reaches our eyes, we are able to see the image.

Q13. What are transparent, translucent and opaque objects? Give examples.

A13. Transparent objects: These are the objects which allow all light to pass through them. Eg. Water, air.

*Translucent objects : These are the objects that allow some light to pass through them. Eg. Tracing paper, oiled paper.

*Opaque object : These are the objects that do not allow any light to pass through them. Eg. Wood, metal.



Q14. How does light travel? Describe an activity which helps us to understand this.

A14. Light travels in a straight line. This phenomenon of light is known as rectilinear propagation of light.

To prove this-

*Place a lighted candle in front of two cardboards with hole in them.

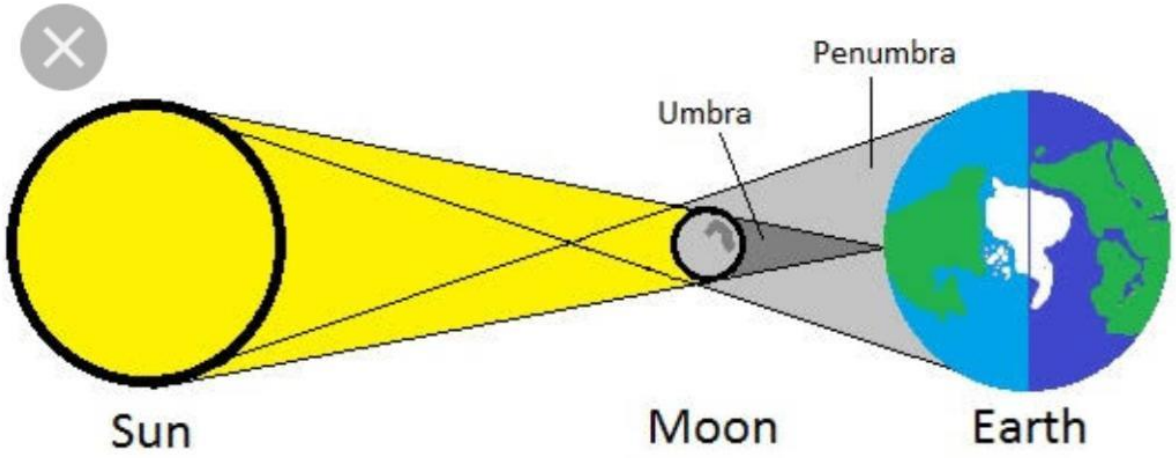
*We will be able to see the candle only when both the holes on the cardboard and the candle are in a straight line.

*If we move any of these, we will not be able to see the candle.

This shows that light travels in straight line.

Q15. Define solar eclipse with a diagram.

A15. When the moon comes in between the sun and the Earth and casts its shadow on the Earth, this is known as the solar eclipse.



Q16. Explain a pinhole camera and what kind of an image is formed by a pinhole camera?

A16. * A pinhole camera has a pinhole in a box with screen on the other side as shown in the figure.

*The image formed on the screen is inverted because light travels in a straight line .

*So, the rays travelling from top and bottom half of the object cross at the pinhole and travel straight to the screen to form an inverted image.