Light

Thu
23/11/24

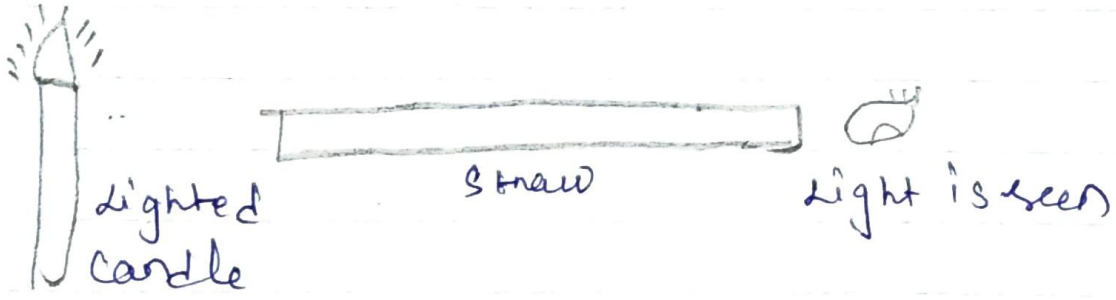
Activity

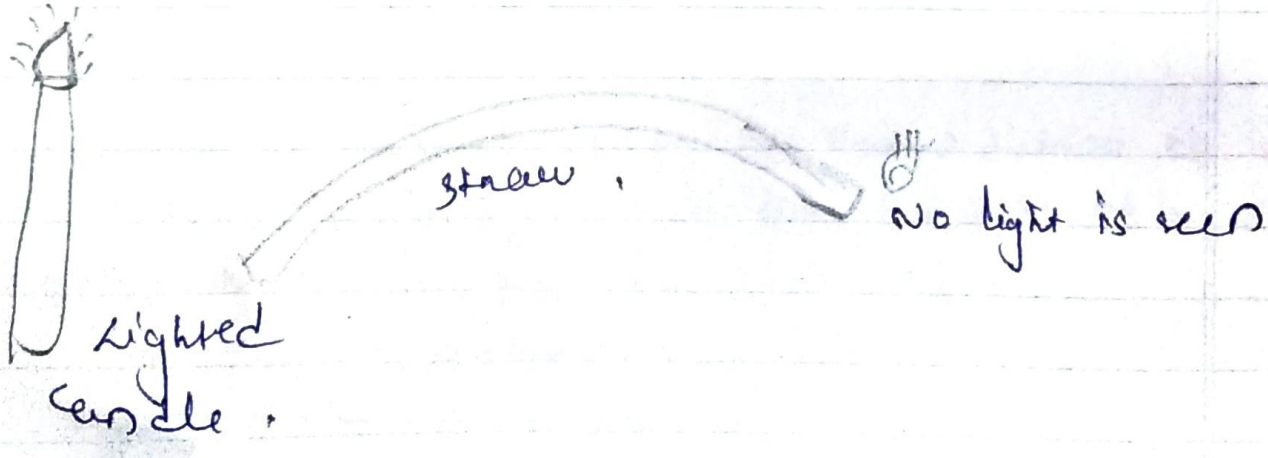
Aim - To show rectilinear propagation of light.

Experiment - Place a lighted candle on a table. Take a straw. Close one eye and look at the candle flame through the straw from other eye. The flame is visible. Now bend the straw in the middle and again look at the candle flame through the straw.

Observation - The flame is not visible now. The reason is that light travels in a straight line path and when we bent the straw, the light of the candle flame does not reach our eye.

Conclusion - Light travels in a straight line path.





Date
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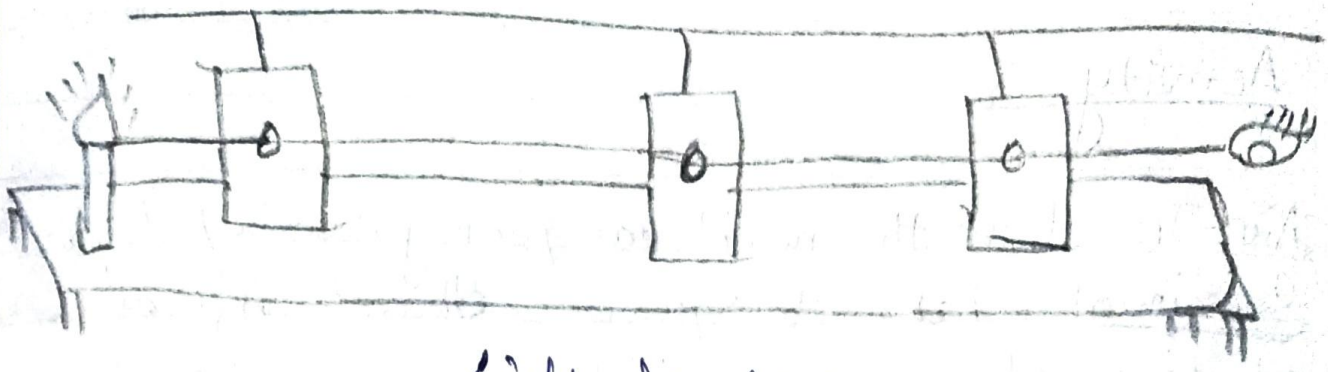
Activity 3

Aim - To show the rectilinear propagation of light.

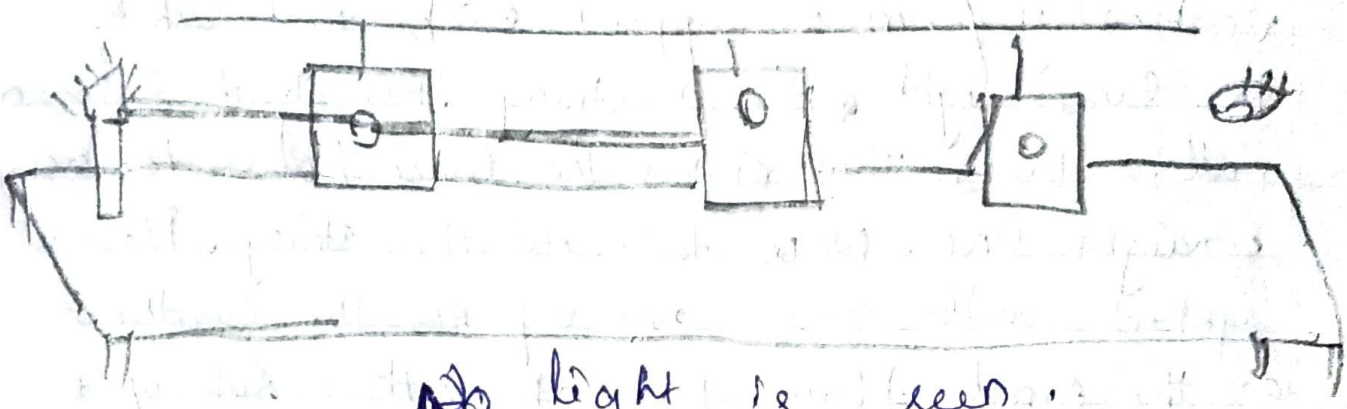
Experiment - Take 3 square cardboards A, B and C each of side about 5 cm. Take a pin and make a small hole in each cardboard at the same height. Suspend the cardboard pieces by separate threads vertically from a support such that each hole is at the same height. Pass a string through the holes and pull it taut. This makes the three holes to be in a straight line. Now take out the string. Place a lighted candle near one of the cardboards. Look at the candle flame from the other side of the cardboard. The candle flame is clearly visible.
Now slightly displace one of the cardboards so that the holes no longer remain in a straight line. Again look at the candle flame from the other side of cardboard.

Observation - We will not see the candle flame.

Conclusion - The reason is that the light travels in a straight line and now the holes in the cardboard are not in a straight line. So for that reason flame is not visible. This shows that light travels in a straight line path.



Light is seen.



No light is seen.

Rectilinear propagation of light.