

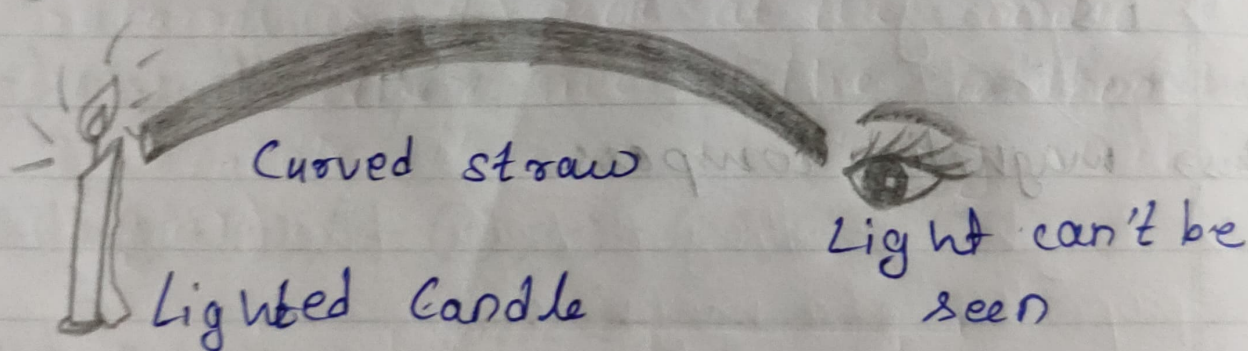
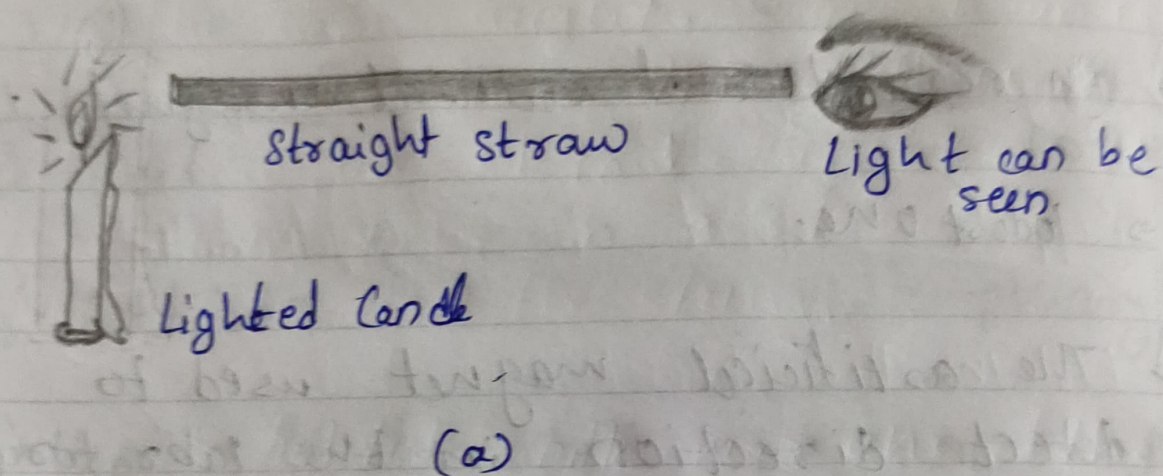
hw

Ch-Light

DE-14-01-22

ACTIVITY 2

Place a lighted candle on a table. Take a drinking straw. Close one eye and look at the candle flame through the straw from the other eye. The flame is clearly visible. (a)



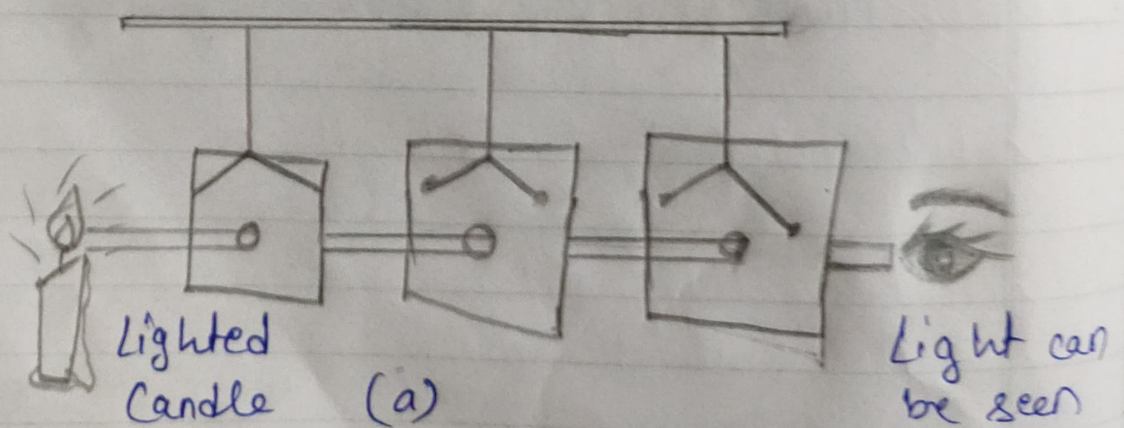
Now bend the straw in the middle and again look at the candle flame through the straw. (b). The flame is not visible now. This is the reason that light travels in a straight line path. When the straw is bent, the light of the candle flame does not reach our eye.

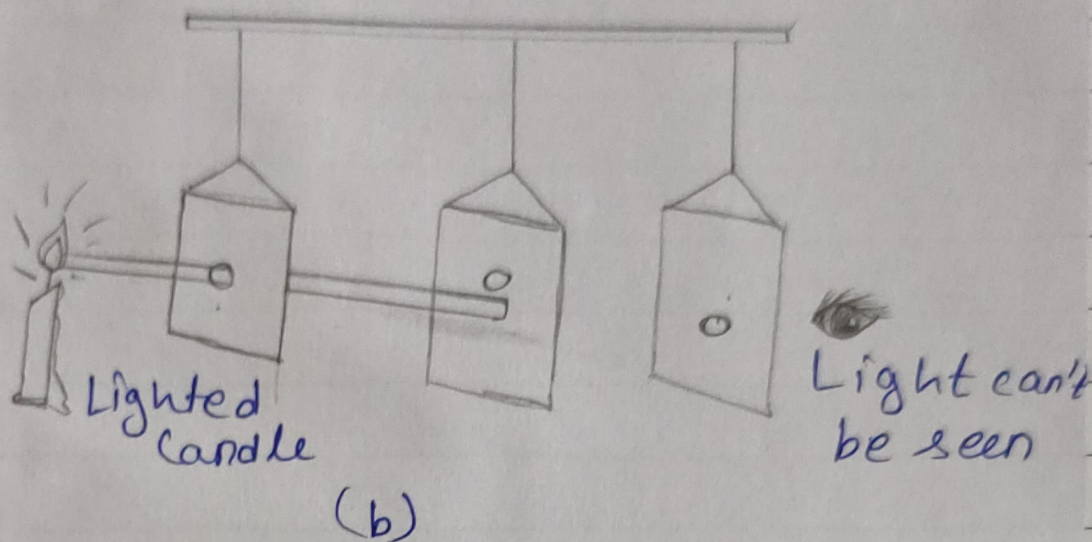
Conclusion - Light travels in a straight line path (Rectilinear propagation of Light).

ACTIVITY 3

Take three square cardboard A, B and C each of side about 5cm. Take a pin and make a small hole in the same height. Suspend the cardboard pieces by separate threads vertically from a support such that each hole is at the same height, as shown in figure (a). 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 (say A). Look at the candle flame from the other side of the cardboard C. The candle flame is clearly visible (fig (a)).





Now slightly displace the one of the cardboard (say B) so that the holes no longer remain in a straight line. Again look at the candle flame from the other side of the cardboard C. You do not see the candle flame. The reason is that light travels in a straight line and now the holes in the cardboard A, B and C are not in a straight line. Therefore, the flame is not visible.

Conclusion - Light travels in a straight line path.