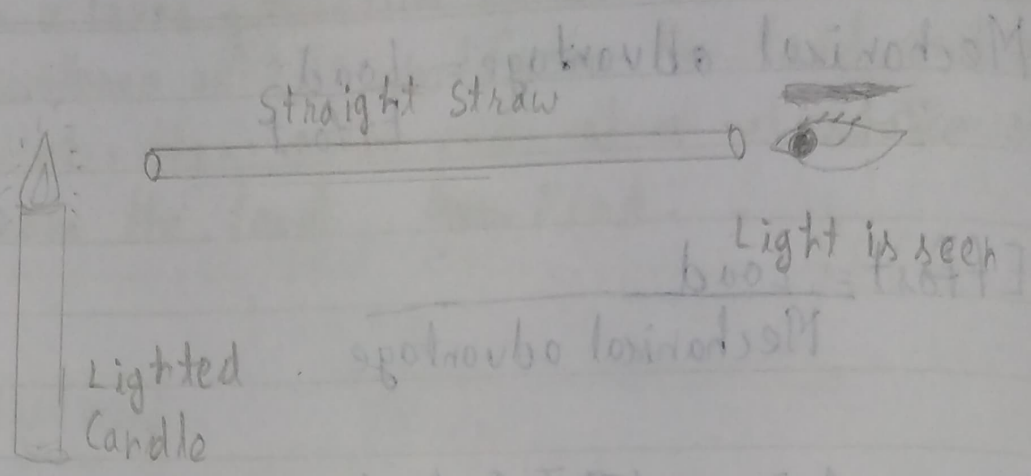
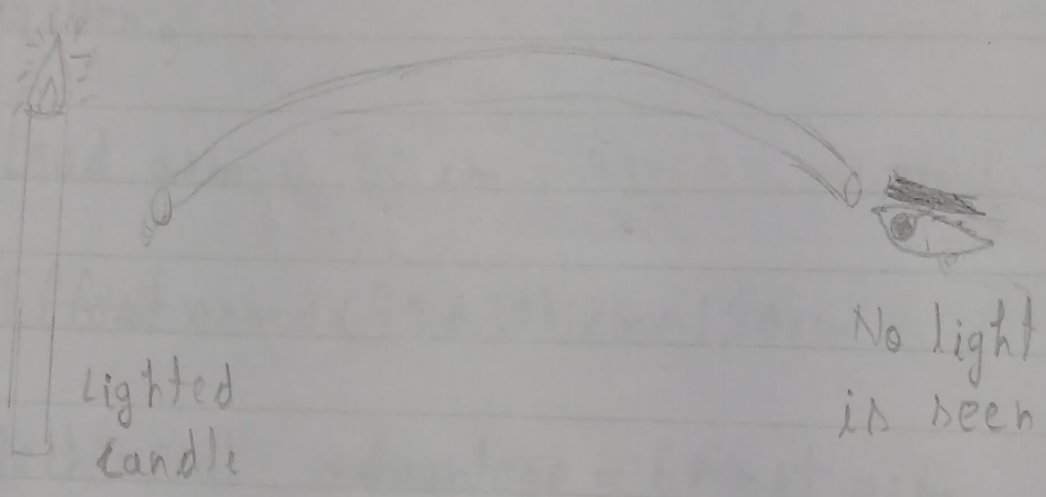


H.W



(a) $\frac{1}{2} \times 2.5 = 1.25 = \frac{5}{4}$



(b)

Aim of the Activity: To show that light travels in a straight line path.

Materials Required: Candle
Matchbox
Straw

Procedure:

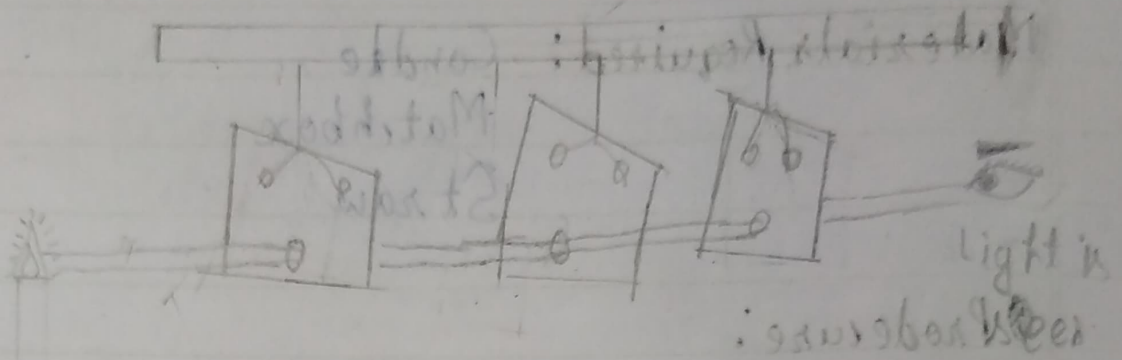
Place a ~~straw~~ lighted candle on a table. Take a drinking straw. Close one eye and look at the candle flame through the straw from the other eye.

Observation:

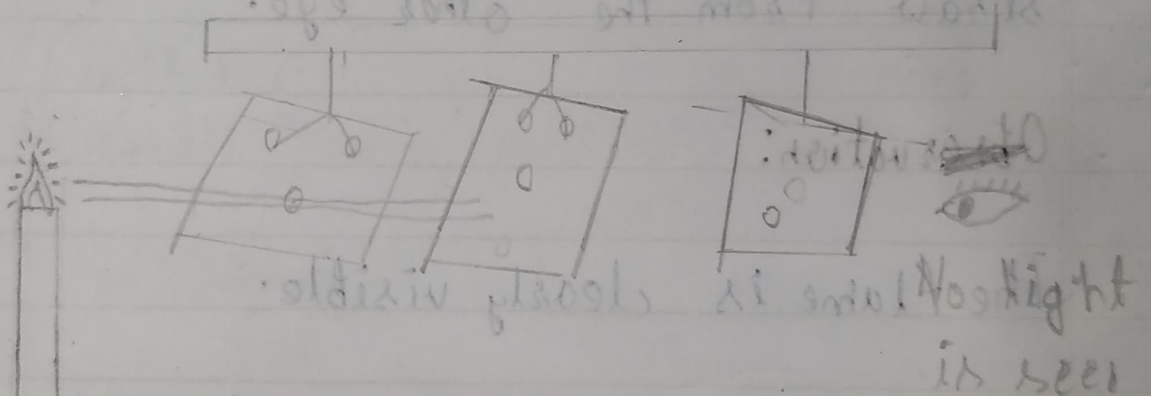
The flame is clearly visible.

Now bend the straw and in the middle and again look at the candle flame through the straw. The flame is not visible now. The reason is 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: This shows that light travels in a straight line path.



Lighted
Candle



Lighted
Candle

Aim of the Activity: To show that light travels in a straight line path.

Materials Required: Candle
Matchbox
Cardboard pieces
Thread
Supporting stand
String

Procedure:

Take three 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 supporting stand 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.

Light a candle using a matchbox. Place the lighted candle near one of the cardboards (say A). Look at the candle from the other

side of the cardboard C.

Observation:

The candle flame is clearly visible.

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

Conclusion:

This shows that light travels in a straight line path.