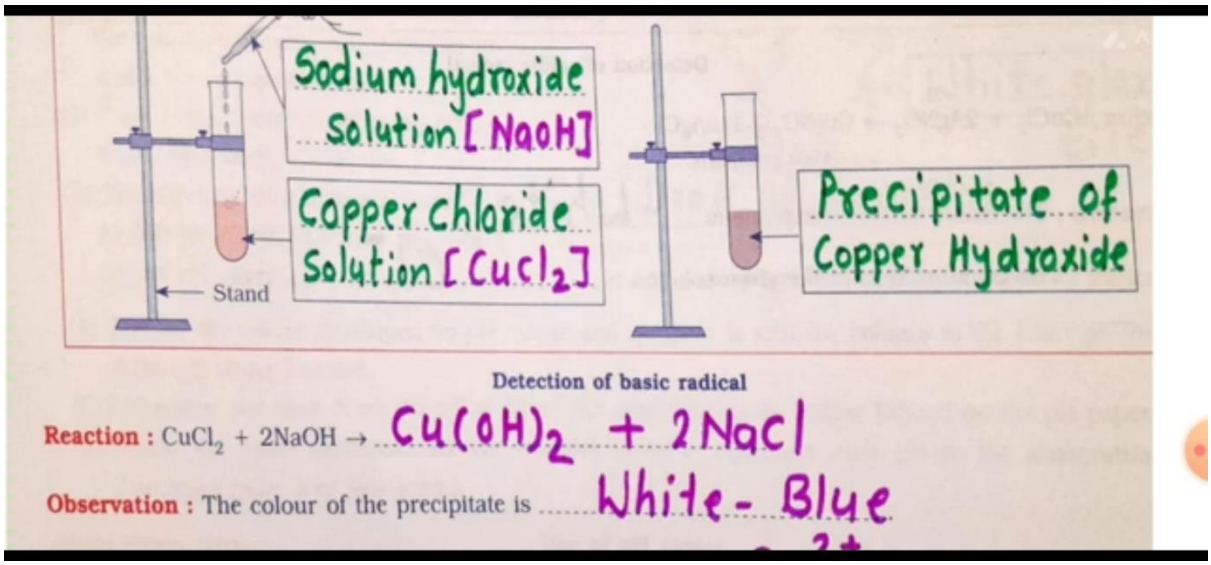
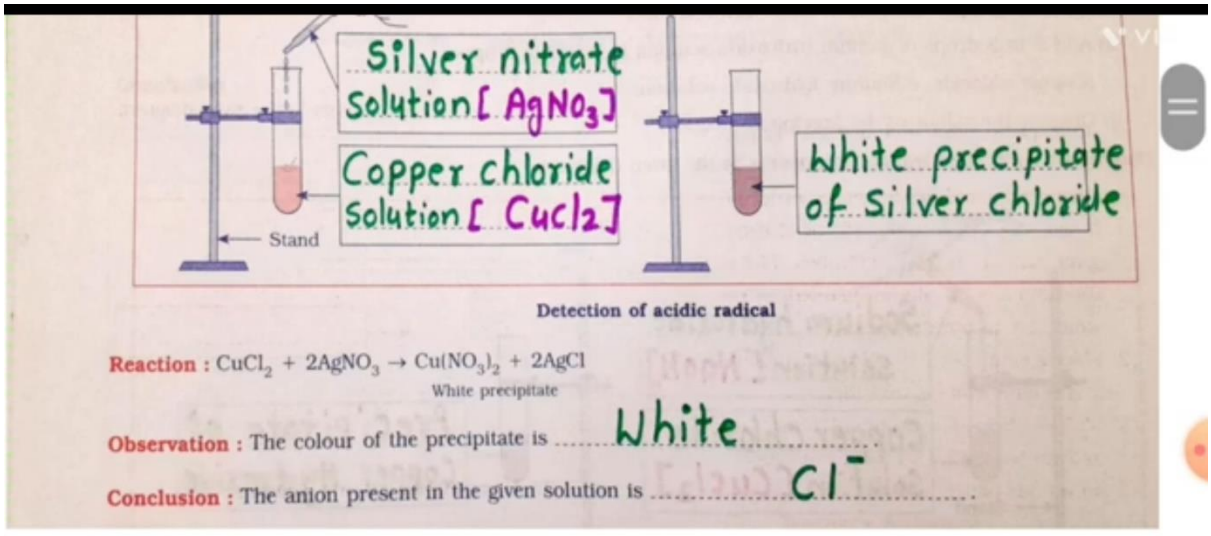
Experiment No. 4



Detection of basic radical

Reaction : $CuCl_2 + 2NaOH \rightarrow$ $Cu(OH)_2 + 2NaCl$

Observation : The colour of the precipitate is White - Blue



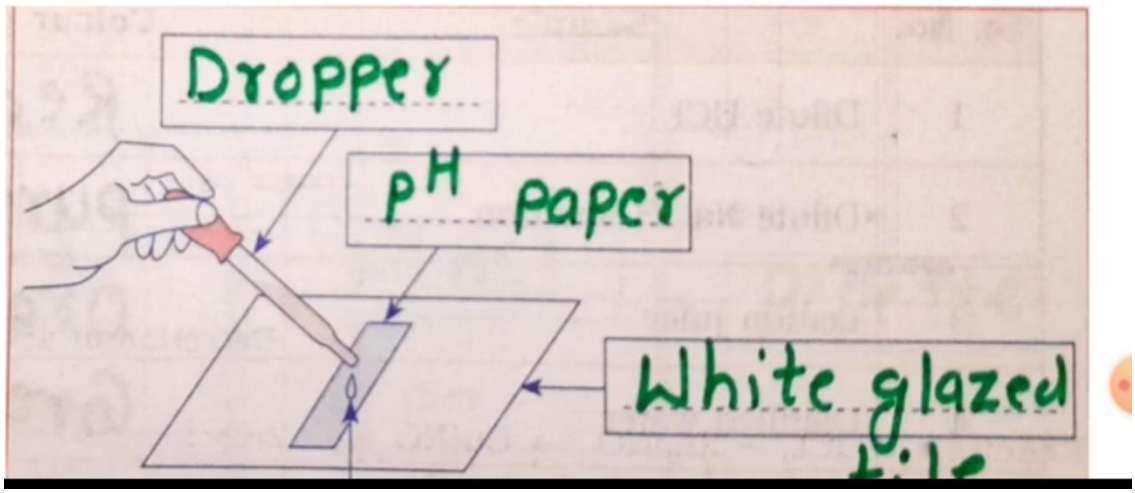
Detection of acidic radical

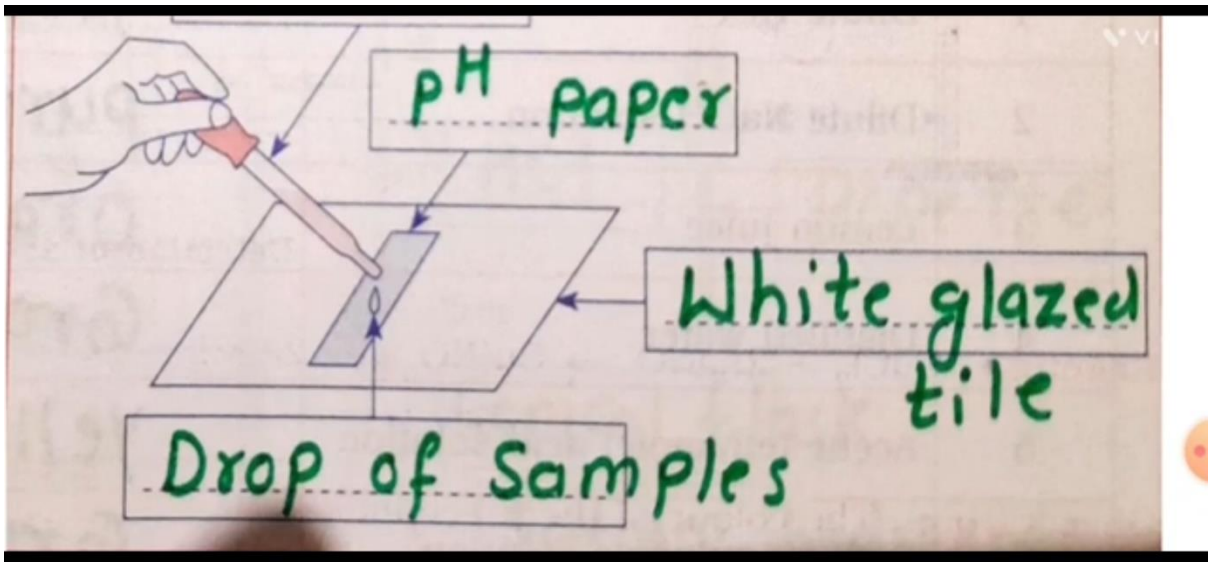
Reaction : $CuCl_2 + 2AgNO_3 \rightarrow Cu(NO_3)_2 + 2AgCl$
White precipitate

Observation : The colour of the precipitate is White.

Conclusion : The anion present in the given solution is Cl^-.

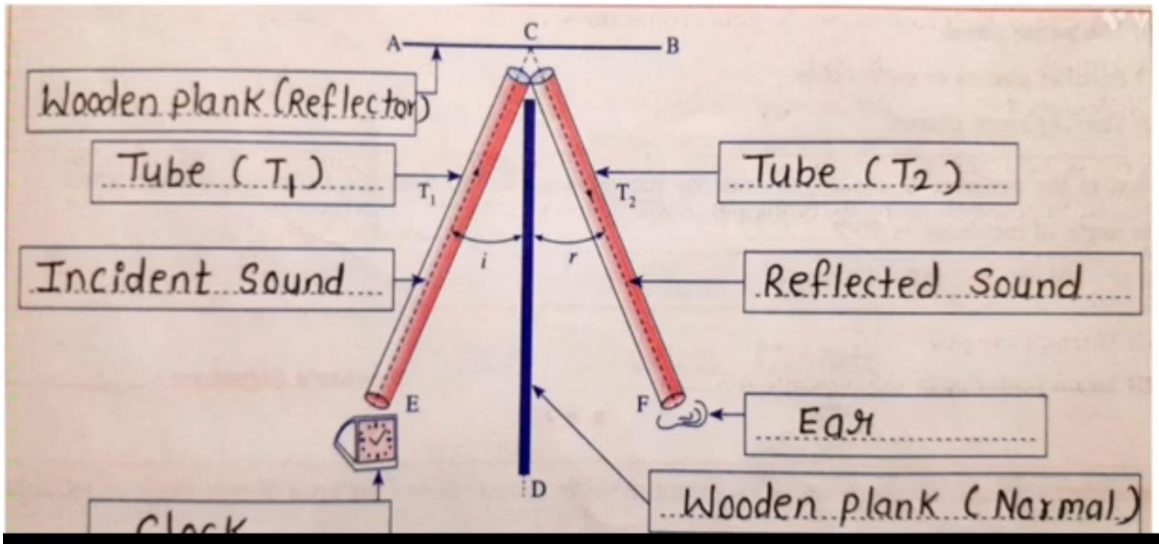
Experiment No. 5





Sr.no.	Sample	Colour Produced	Approximate pH
1	Dilute HCl	Red	0-1
2	Dilute NaOH solution	Purple	14
3	Lemon juice	Orange	2
4	Distilled water	Green	7
5	Dilute solution of acetic	Yellow	3
6	Sodium sulphate solution	Green	7
7	Ammonium chloride solution	Blue	11
8	Sodium bicarbonate Solution.	Blue	9

Experiment No. 10



Observation table :

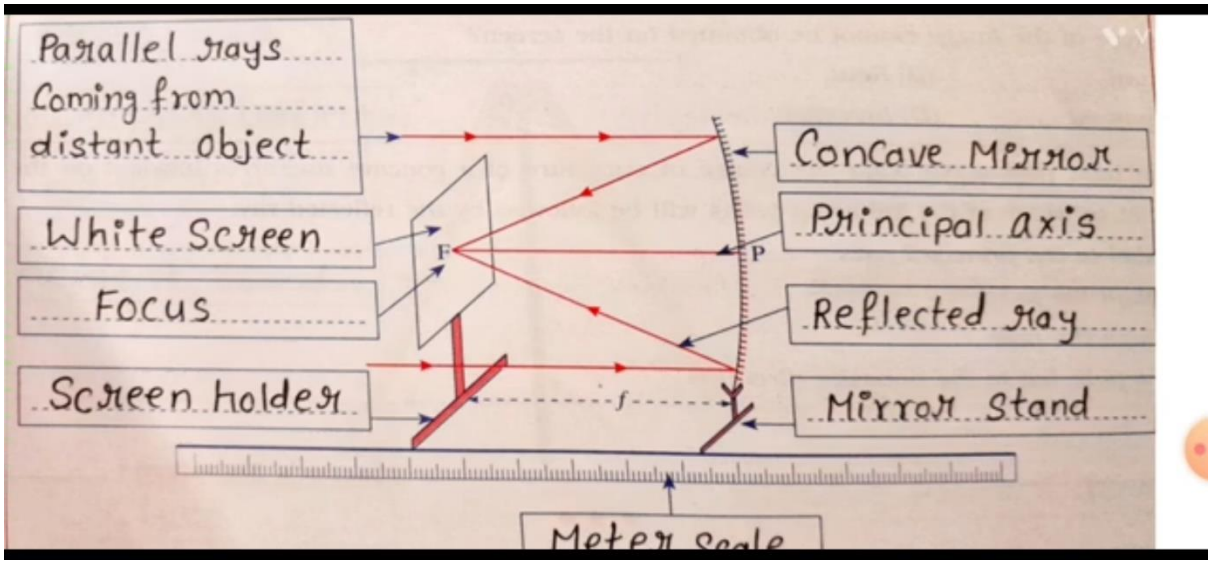
Observation No.	Angle of incidence (*i*)	Angle of reflection (*r*)
1	30°	30°
2	40°	40°
3	50°	50°
4	60°	60°
5	70°	70°

Conclusion:

Like light waves, sound waves, too, get reflected from a solid or liquid surfaces.

In the reflection of sound it is observed that angle of incidence (i) and angle of reflection (r)are equal .

Experiment No. 9 (Method 2)



Observation table : Least count of the metre scale : 1 mm.

Distant object	Distance between the pole of the mirror and the image
Window	d_1 = 10·1 cm
tree	d_2 = 10·2 cm
house	d_3 = 10 cm
	Mean distance = $f = \frac{d_1 + d_2 + d_3}{3}$ = 10·1 cm

Conclusion:

The distance between the mirror and the screen is approximately equal to the focal length of the given concave mirror.