# ACIDS, BASES AND SALTS

# LITMUS

Litmus is extracted from Lichens.

Lichen is a composite organism.

Lichens consist of fungi and algae living in symbiotic relationship.

Lichens

# CHARACTERISTICS

**Litmus is a purple coloured liquid in distilled water i.e. its a purple coloured solution.**

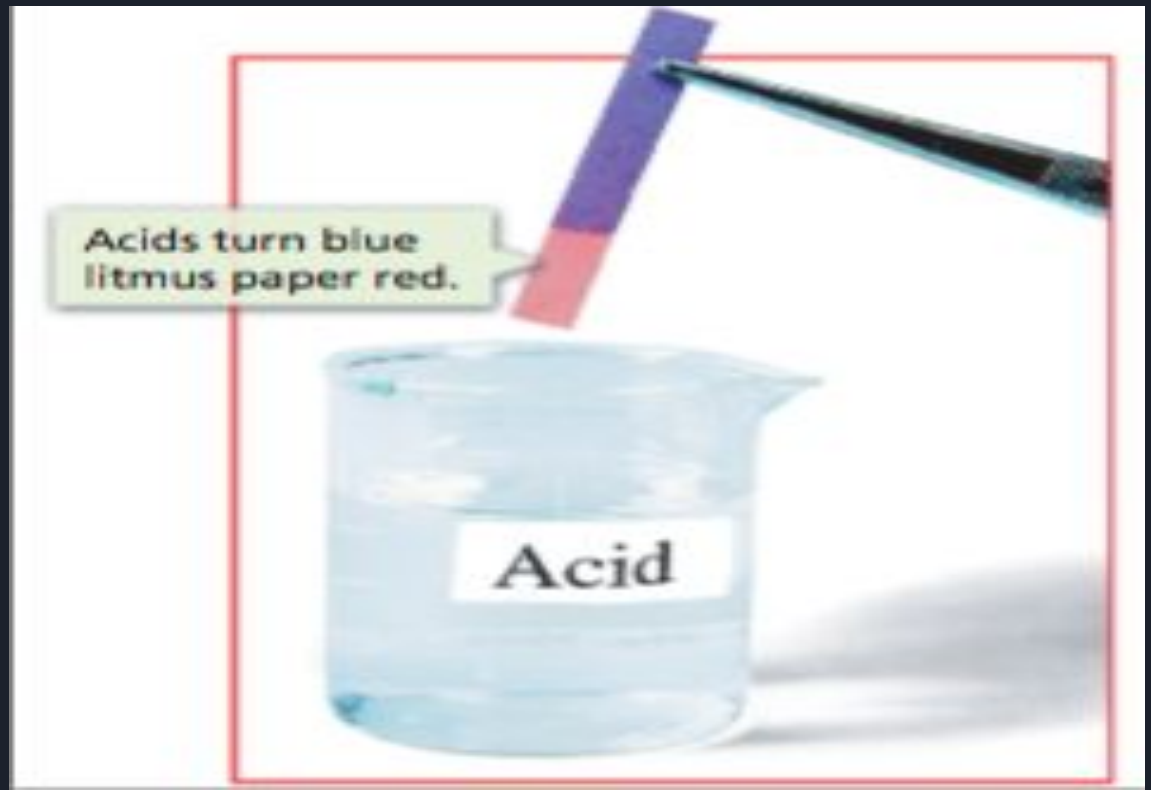
**Litmus comes in the form of strips of two colours.**

**One is called blue litmus paper and another is called red litmus paper.**

**Litmus solution and litmus paper are used to detect the acidic or basic nature of a substance.**

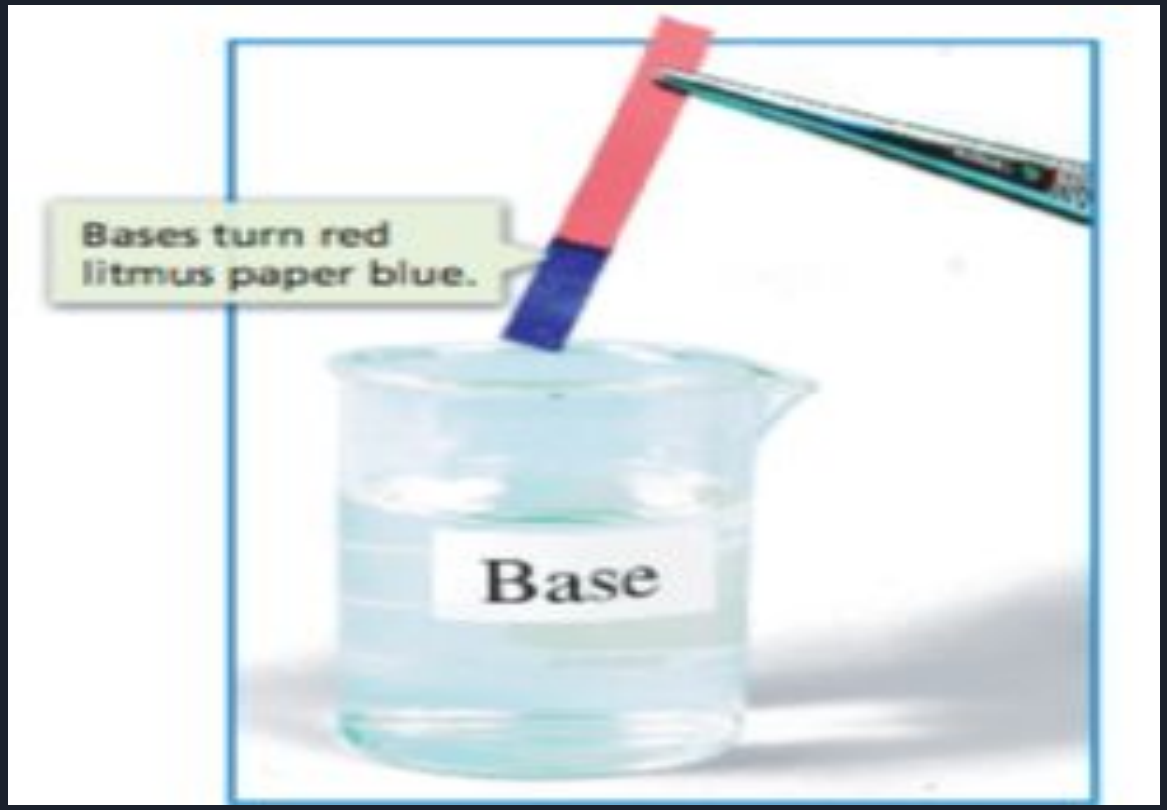
# Colour of litmus paper in acid:

**Blue litmus paper turns into red when dipped in acidic solution.**



# Colour of litmus paper in base:

**Red litmus paper turns into blue when dipped in basic solution.**



# Colour of litmus paper in neutral solution

**No change in colour-**

**Blue litmus paper remains blue in neutral solution.**

**Red litmus paper remains red in neutral solution.**

| S. No. | Test solution | Effect on red litmus paper | Effect on blue litmus paper | Inference |
|---|---|---|---|---|
| 1 | Tap Water | No change | No change | Neutral |
| 2 | Detergent Solution | Changes to blue | No change | Basic |
| 3 | Aerated Drink | No change | Changes to red | Acidic |
| 4 | Soap Solution | Changes to blue | No change | Basic |
| 5 | Shampoo | No change | Changes to red | Acidic |
| 6 | Common Salt Solution | No change | No change | Neutral |
| 7 | Sugar Solution | No change | No change | Neutral |
| 8 | Vinegar | No change | Changes to red | Acidic |
| 9 | Baking Soda Solution | Changes to blue | No change | Basic |
| 10 | Milk of Magnesia | Changes to blue | No change | Basic |
| 11 | Washing Soda Solution | Changes to blue | No change | Basic |
| 12 | Lime Water | Changes to blue | No change | Basic |

Figure 3: Testing Solutions with Litmus Paper

# Extra Points-

$H_2CO_3 \longrightarrow H_2O + CO_2$

carbonic acid Water Carbon Dioxide

Solute + Solvent = Solution

Sugar Water Sugar Solution

# PLENARY

Q. What is litmus? Explain its action.

# ASSESSMENT

**Q. Explain the effect on turmeric on acids and bases.**