Acids, Bases and Salts

- Substances that are sour to taste are acidic in nature and those that are bitter to taste and soapy to touch are basic in nature.

- Chemicals that are used to check acidic or basic nature of substances are called **indicators**. One of the most commonly used indicators is litmus solution (a natural indicator). Acids turn blue litmus paper to red and bases turn red litmus paper to blue.

- Turmeric paste and China rose are also natural indicators. China rose indicator becomes dark pink when an acidic substance is added to it and turns to green when a basic substance is added to it. Turmeric paste remains yellow in acidic solutions but turns to red in basic solutions.

- Substances that are neither acidic nor basic in nature are called neutral substances. Neutral substances do not affect the colour of indicators.

- When an acid is mixed with a base, they neutralize the effect of each other. This reaction is known as **neutralization reaction**. Water and salt are produced as products during the neutralization reaction. Heat is also produced during the neutralization reaction.

  Acid + Base → Salt + Water + Heat

- The salt produced during neutralization reactions can be acidic, basic, or neutral in nature.
- Acidic salts= weak base + strong acid
- Basic salts= weak acid + strong base
- Neutral salts= strong base + strong acid

- Ant sting contains formic acid. The effect of this acid is neutralised by rubbing moist baking soda (sodium hydrogen carbonate) or calamine solution that contains zinc carbonate.
- Milk of Magnesia (magnesium hydroxide) is an antacid used to neutralise the effect of excess of acid produced in our stomach.