Neutralizing Acids & Bases

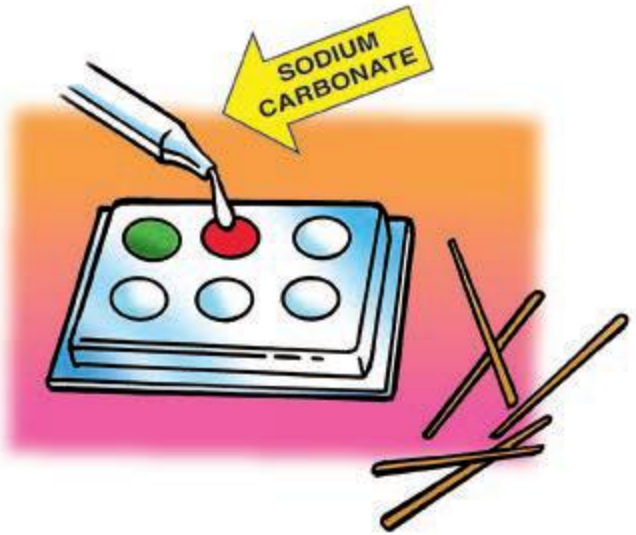
- Objectives
- To be able to explain that pH is affected by the concentration of the $\boldsymbol{H_3O^+}$ ions in water.
- To be able to explain why adding a base to an ***acid*** or an ***acid*** to a base can make the pH of the solution closer to ***7.***

Demonstration

- How did you know when the solution became close to neutral?
- The solution turned green.

Activity

- Complete the Activity and answer the questions on the activity sheet.
- 20 minutes



Neutralizing an Acidic Solution

- Animation

Key Concepts

- pH is a measure of the concentration of H_3O^+ ions in a solution.
- Adding an acid increases the concentration of H_3O^+ ions in the solution.
- Adding a base decreases the concentration of H_3O^+ ions in the solution.
- An acid and a base are like ***chemical*** opposites.

Key Concepts

- If a base is added to an acidic solution, the solution becomes ***less acidic*** and moves toward the middle of the pH scale. This is called ***neutralizing*** the acid.
- If an acid is added to a basic solution, the solution becomes ***less basic*** and moves toward the middle of the pH scale. This is called ***neutralizing*** the base.