The Practise Ground

Class 10-11 Chemistry

Acids, Bases & pH

The pH scale and neutralisation

1

$pH = -\log_{10}[H^+]$

Definition of pH

$[H^+]$ is the hydrogen ion concentration in mol/L

2

$pH + pOH = 14$

Water at 25 °C

Use it to find pH from pOH

3

Acid + Base = Salt + Water

Neutralisation

$HCl + NaOH = NaCl + H_2O$

4

pH < 7 acid | 7 neutral | > 7 base

The pH scale

Lemon juice about 2, pure water 7, soap about 10

Remember

Each pH step is a tenfold change in $[H^+]$.

Strong acids and bases ionise fully; weak ones only partly.

Quick example

$[H^+] = 0.001$ mol/L

$pH = -\log_{10}(0.001) = 3$

The solution is acidic.

Think you've got it? Test yourself.

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