

CREST

CHEMISTRY PROJECT

Acids, Bases and Salts

Indicators, pH and everyday chemistry

PRESENTED BY
Student Name

SUBJECT
Chemistry

CLASS / YEAR
Class XI

Agenda

01

Introduction

02

Concepts

03

Experiment

04

Applications

05

Summary

What is acids and bases?

Acids taste sour and turn blue litmus red; bases taste bitter, feel soapy and turn red litmus blue.

When an acid reacts with a base, they neutralise each other to form salt and water. The pH scale from 0 to 14 measures how acidic or basic a solution is.



Diagram

Key concepts

01

Indicator

Changes colour with acids or bases.

02

pH

Scale of acidity from 0 to 14.

03

Neutralisation

Acid + base $\rightarrow$ salt + water.

Neutralisation

01

Take

Dilute acid in a beaker

02

Add

Indicator drops

03

Titrate

Add base slowly

04

Observe

Colour change at neutral

Common substances

Substance	Type	pH (approx.)
Lemon juice	Acid	2
Pure water	Neutral	7
Soap solution	Base	10

Reference values for illustration.

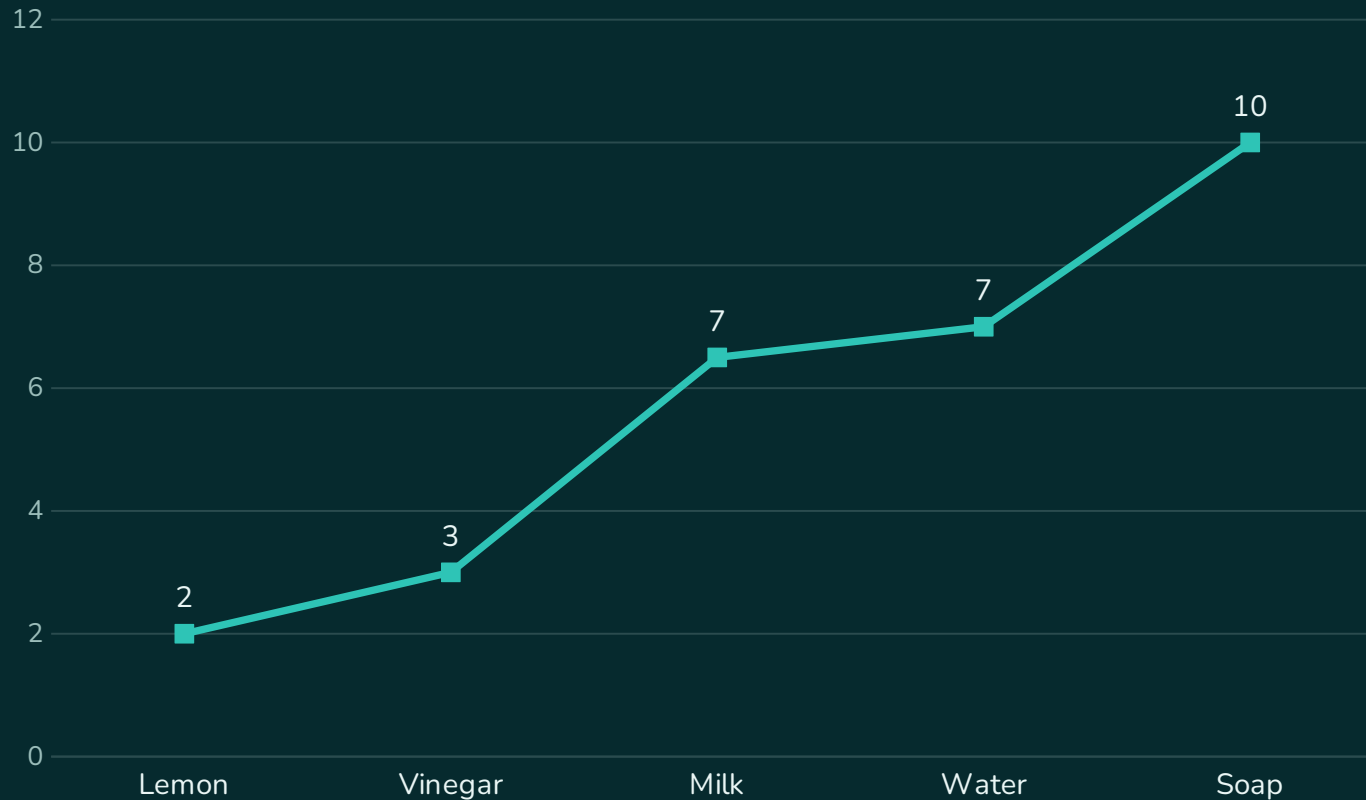
Experiment

- Collect lemon juice, soap water and vinegar
- Dip litmus paper in each
- Note the colour change
- Arrange them on a pH scale

SAFETY

**Wear goggles and
never taste
chemicals.**

pH of household items



Approximate pH values (sample data).

Sample data for illustration — replace with your own figures.

Real-world applications



Image 1

Digestion

Stomach acid breaks down food



Image 2

Agriculture

Lime treats acidic soil



Image 3

Medicine

Antacids neutralise acidity

Quick facts

0-14

range of the pH scale

7

is neutral

HCl

acid in our stomach

Summary

- Acids turn blue litmus red
- Bases turn red litmus blue
- Acid + base gives salt + water
- pH measures acidity



Thank you

Questions?

Student Name · Chemistry