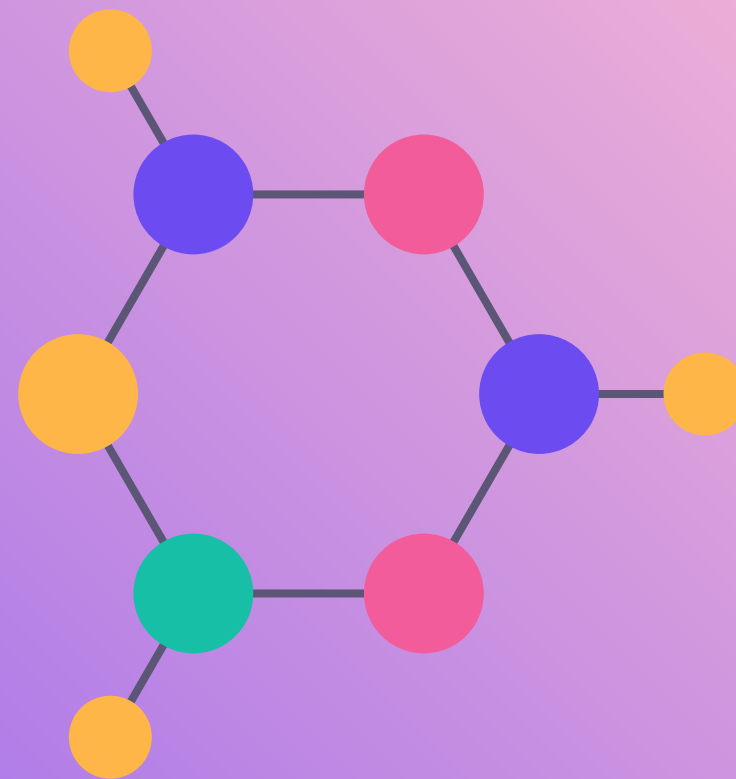


CHEMISTRY PROJECT

Acids, Bases and Salts

Indicators, pH and everyday chemistry

Student Name · Chemistry · Class XI



02 Agenda

01 Introduction

02 Concepts

03 Experiment

04 Applications

05 Summary



Image

03 | 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

04 | Key concepts

1

Indicator

Changes colour with acids or bases.

2

pH

Scale of acidity from 0 to 14.

3

Neutralisation

Acid + base $\rightarrow$ salt + water.

05 | Neutralisation



Take

Dilute acid in a beaker



Add

Indicator drops



Titrate

Add base slowly



Observe

Colour change at neutral

06 | Common substances

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

Reference values for illustration.

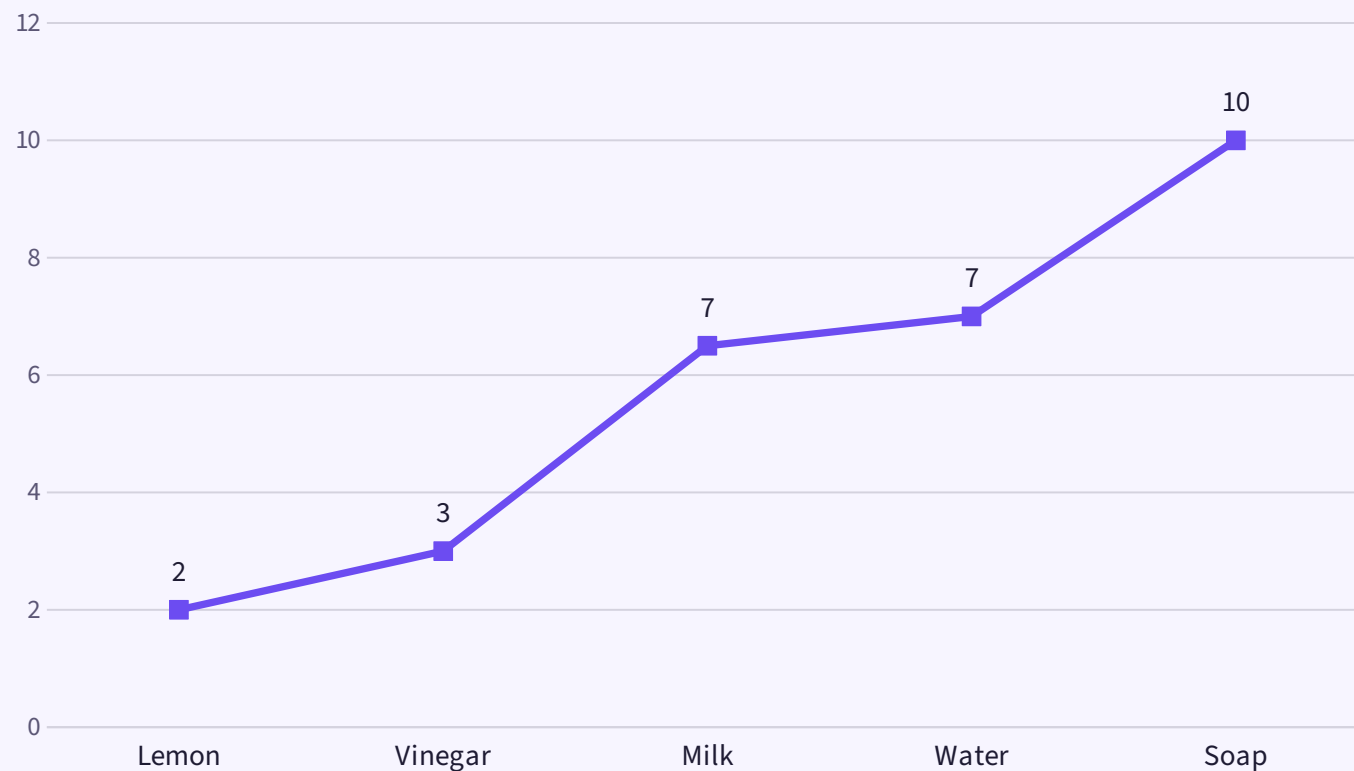
07 | Experiment

- 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.

08 pH of household items



Approximate pH values (sample data).

Sample data for illustration — replace with your own figures.

09 | Real-world applications

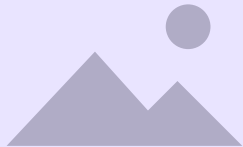


Image 1

Digestion

Stomach acid breaks down food



Image 2

Agriculture

Lime treats acidic soil



Image 3

Medicine

Antacids neutralise acidity

10 | Quick facts

0–14

range of the pH scale

7

is neutral

HCl

acid in our stomach

11 | 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