

Acids and Alkalis

- **What are acids and alkalis?**
- **Indicators and the pH scale**
- **Neutralization**
- **Summary activities**



What is an acid?

- Acids are a group of chemicals that donate a proton in a reaction.

What do you know about **acids**? Are all **acids** dangerous?





What is an acid?



everyday acids



laboratory acids



What are acids?

**Acids are
substances that:**

- Have a pH below 7 and turn universal indicator yellow, orange or red.





Properties of acids



- An acid is a substance that releases hydrogen ions (H^+) into an aqueous (water) solution.
- are corrosive.
- have a sour taste
- turn blue litmus paper red
- react with some metals, releasing hydrogen gas and leaving a salt behind
- conduct electricity
- are neutralized by bases, producing water and a salt.





What is a strong acid?

- Some acids, like those found in the laboratory or a car battery, dissolve completely in solution. They are very dangerous (too dangerous to taste or touch).



These acids are said to be **corrosive** as they can damage other materials by eating them away! They are **strong acids**.





What is a weak acid?



- Many acids are found in household items such as food, drink and beauty/skincare products.



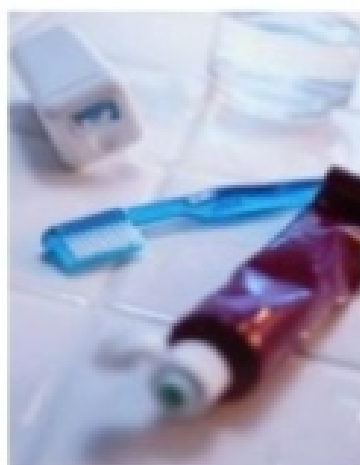
These acids do not dissolve completely in solution and are known as **weak acids**.





What is an alkali?

- Alkalis, or bases, are another group of chemicals, the opposite of acids.



everyday alkalis



laboratory alkalis

Properties of Bases



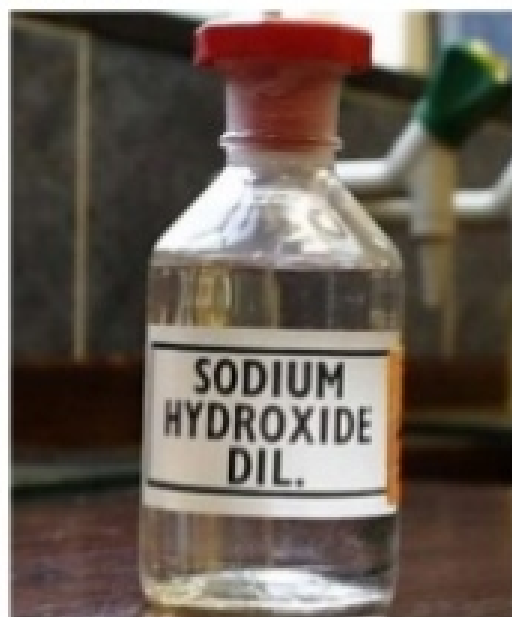
- A base is a substance that releases hydroxide ions (OH^-) in an aqueous solution.
- are caustic
- have a soapy, slimy feel
- turn red litmus paper blue
- have a bitter taste
- conduct electricity
- are neutralized by acids, producing water and a salt.





What is a strong alkali?

- Some alkalis, like those in the laboratory or in cleaning materials such as toilet cleaner, dissolve completely in solution and are too dangerous to touch.



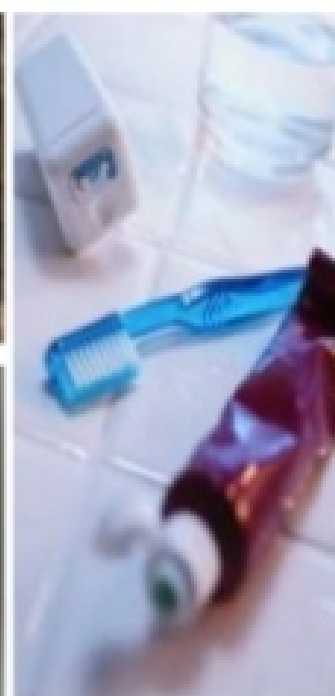
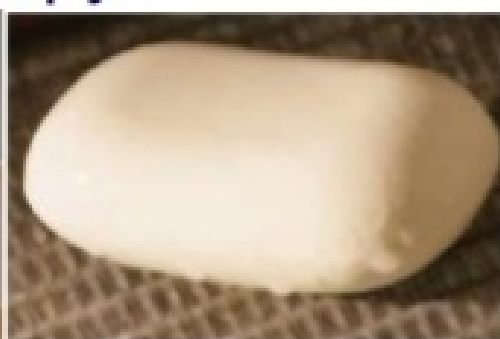
These alkalis are said to be **caustic** because they can burn skin and damage other materials! They are **strong alkalis, or bases**.



What is a weak alkali?



- Alkalis are found in soaps and other materials used for cleaning. It is safe to handle these alkalis, which can feel soapy.



These do not dissolve completely in solution and are known as **weak alkalis**, or **weak bases**.



Class 8th

Unit No 4.

ACIDS And ALKALIS

Review Questions

Answers

Ans1- page no30 paragraph no2

Ans2-page no31 and32

Ans3-page no32 last paragraph

Ans-4 page33 '34

Ans5page 35 3rd paragraph

Ans6-page 41 table

Ans-7page 39 1st paragraph

Ans8-page 40 table

Acid and Base Properties

Acid Properties:

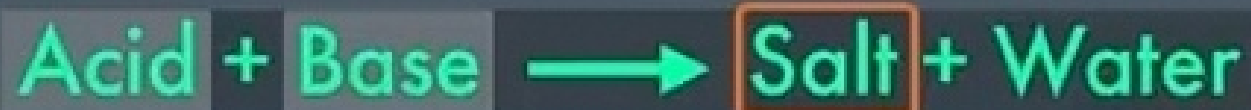
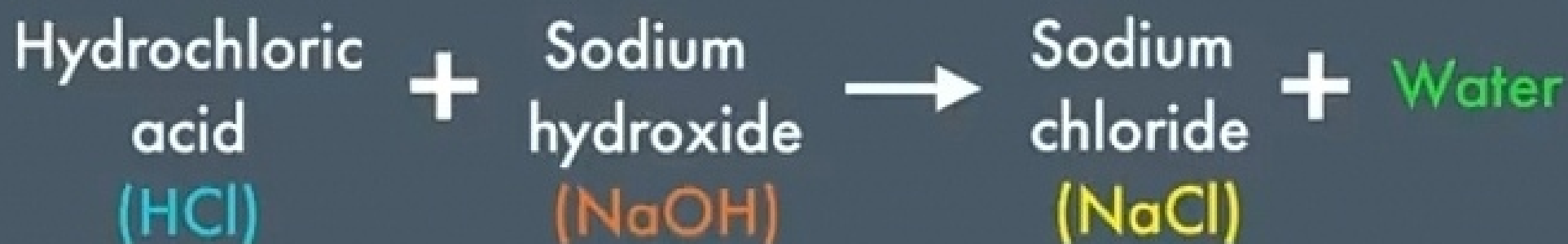
When dissolved in water, acids

1. Conduct electricity
2. Change blue litmus to red
3. Have a sour taste
4. React with bases to neutralize their properties
5. React with active metals to liberate hydrogen.

Base Properties:

When dissolved in water, bases

1. Conduct electricity
2. Change red litmus to blue
3. Have a slippery feeling
4. React with acids to neutralize their properties.





WORK SHEET...



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SECOND TERM SYLLABUS

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