

Neutralisation and Salts

KS3 Chemistry · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Name the products when hydrochloric acid reacts with sodium hydroxide.

Step 1 · General equation

acid + alkali → salt + water

Step 2 · Salt name

Metal from the alkali (sodium) + ending from the acid (chloride).

Answer: Sodium chloride and water

Check: hydrochloric acid + sodium hydroxide → sodium chloride + water

2. Now try one with the steps

Write a word equation for sulfuric acid + potassium hydroxide.

Step 1 · Salt

Step 2 · Equation

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. Complete: acid + alkali → _____ + _____ [1]

2. What is neutralisation? [1]

3. What is the pH of a solution that has been exactly neutralised? [1]

4. Name the salt formed from nitric acid and sodium hydroxide. [1]

5. Name the salt formed from hydrochloric acid and potassium hydroxide. [1]

6. Name the acid and alkali needed to make sodium sulfate. [2]

7. Is neutralisation exothermic or endothermic? [1]

8. What colour is universal indicator when an acid has been exactly neutralised? [1]

9. When neutralising an acid with an alkali, why should the last few cm³ of alkali be added one drop at a time? [1]

10. Give TWO everyday uses of neutralisation. [2]

11. Why does toothpaste contain a mild base? [2]

12. Complete: acid + metal carbonate → salt + water + _____ [1]

13. Three trials needed 25 cm³, 24 cm³ and 26 cm³ of alkali to neutralise 20 cm³ of acid. What is the mean volume of alkali, in cm³? [1]

14. Explain why the salt is made in a second run without indicator. [1]

4. Before you hand it in

"Neutralisation makes the acid disappear."

The acid and alkali turn into a salt and water.

Naming the salt the wrong way round, e.g. 'chloride sodium'.

Metal (from the alkali or base) + ending (from the acid): sodium chloride.

"Adding more alkali always makes it more neutral."

After pH 7, extra alkali makes the solution alkaline.

Forgetting water product.

acid + alkali → salt + WATER.