Grade Nine Guides

# GCSE CHEMISTRY

## Paper 1

## Chemical Changes

## EXAM QUESTIONS

- Exam questions per topic

Aiming at grade 8/9

# Answers in No Waffle GCSE videos :)

| | | |
|---|---|---|
| Chemical changes<br><br>Required practical 1: making salts | ➢ Write an ionic equation for the neutralisation of an acid and an alkali [2]<br>➢ Required practical: how to prepare a salt from insoluble metal carbonate/ oxide an acid;<br><br>[A] Describe a method for making pure crystals of copper sulphate from copper carbonate and dilute sulfuric acid. | |
| Required practical 2:neutralisation [titration] | ➢ Required practical: how to prepare a salt from soluble metal carbonate/ oxide and acid<br>B] Describe a method for making crystals of potassium chloride from potassium hydroxide and hydrochloric acid [titration] | |
| Required practical 3: electrolysis | ➢ C: Explain why the student should use a pipette to measure the dilute sulfuric acid and a box burette to measure the sodium hydroxide solution.<br>[2 marks]<br><br>➢ Required practical to: electrolysis<br>[6] | |

# Answers in No Waffle GCSE videos :)

- Suggest how in electrolysis the students could find the total collected

[2]

➢ Compare the use of nickel and platinum for electrodes in plugs

[4]

➢ Explain what happens at each electrode during the electrolysis of aluminium oxide

[4]

➢ Explain why a mixture is used as the electrolyte instead of using only aluminium oxide.

[2]

➢ Explain why the positive electrode must be continually replaced.

[3]

➢ What are the differences between strong and weak acids

[2]

➢ What is the difference between high and low concentrations of acids

[2]

➢ Explain why the pH of an acid depends on: the strength of the acid, the concentration of the acid

[4]

➢ Dilute hydrochloric acid is a strong acid. Explain why an acid can be described as both strong and dilute.

[2 marks]

➢ What is the difference between a chemical cell and an electrolyte

[2]

➢ Explain why the excess hydrogen must be burned off

[1]