

Subject:

Chemistry



HECKMONDWIKE
GRAMMAR SCHOOL

KS4 - Year 11 Curriculum Overview

Autumn Term

Topics being taught

C3 Quantitative Chemistry

Conservation of mass and mass changes when a reactant or product is a gas.
Moles and their use in calculating amounts of reactants and products in chemical reactions. Yields and atom economy.
Concentrations of solutions and titration calculations.
Volumes of gases and amount of substance.

Term 1

What you will be assessed on

Y11 Mock 1 – will cover all work studied in GCSE Chemistry that is on paper 1 - C1,2,4,5, and part of C3 covered so far.

Term 2

How mass is conserved in a range of chemical reactions. Calculating the Mr and moles of a substance.
Reacting mass calculations including the idea of a limiting reactant. Atom economy and percentage yield.

How you can support at home

Use the [AQA specification](#) to review your knowledge and focus on gaps in knowledge

Regular low stakes testing on Educake and Seneca can help you remember more!

Bitesize [AQA quantitative Chemistry](#). [How to do titrations!](#)

Videos at [free science lessons](#) on this topic. [Gas volumes and calculations](#)

CHRISTMAS HOLIDAYS - CHRISTMAS HOLIDAYS - CHRISTMAS HOLIDAYS - CHRISTMAS HOLIDAYS

Spring Term

Topics being taught

C10 Using resources

Using the Earth's resources and obtaining potable water, waste water treatment and alternative ways of extracting metals.
Life cycle assessment and ways of reducing the use of resources.
Using materials – Ways to prevent corrosion, alloys, ceramics, polymers and composites.
The Haber process and how fertilisers are produced and used.

Term 3

What you will be assessed on

Different types of resources and the way they are supplemented by use of synthetic products. What makes water safe to drink and how it is treated. How waste is treated. Carrying out Life cycle assessments on products.

Term 4

Y11 Mock 2
Will be a Unit 2 paper largely covering C6,7,8,9 and 10. Don't forget bits of C1,C2 and C3 can come up as well – check your specification!

How you can support at home

What is [potable](#) water and how do we treat it to [make it safe to drink](#).

How [waste water](#) is treated before it is returned to the environment

Think about products you use at home and [assess their life cycles!](#) Think about the raw materials, manufacturing, use and disposal

[Le Chatelier's principle](#) is the key to understanding the effects of changing conditions on equilibria

EASTER HOLIDAYS - EASTER HOLIDAYS - EASTER HOLIDAYS - EASTER HOLIDAYS - EASTER HOLIDAYS

Summer Term

Topics being taught

Final exam preparation and revision in class

Term 5

What you will be assessed on

Paper 1 – Units 1 through 5

Paper 2 – Units 6 through 10 plus relevant content from Unit 1,2 and 3 (see specification for more detail)

Term 6

How you can support at home

Encourage students to practise past paper questions(Higher tier) from the [AQA website](#)

Continue to use educake to help you remember more!