### Subject:

## Chemistry



### **KS4 - Year II Curriculum Overview**

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#### Topics being taught

#### C6 Rate and extent of reactions

Reversible reactions and Le Chateliers principle. The Haber process and manufacture of fertilisers and their use.

#### **C7** Organic Chemistry

Crude oil and reactions of alkanes including combustion and cracking. Reactions of alkenes, alcohols, carboxylic acids and formation of esters. Polymerisation and life cycle assessment of products.

#### What you will be assessed on

**YII Mock I** – will cover all work studied in GCSE Chemistry so far-CI,2,4,5,6,8,9,10

**C7 Organic Chemistry** – Separation of crude oil and fractional distillation. Equations for combustion

of alkanes and cracking of alkanes.

**C7 Organic Chemistry-**Addition reactions of alkenes. Formation and reactions of alcohols with oxygen,water and sodium metal. Properties of carboxylic acids and formation of esters. Additon and condensation polymerisation icluding formation of proteins and DNA

#### How you can support at home

Use the <u>AQA specification</u> to review your knowledge and focus on gaps in knowledge

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

Read Organic chemistry notes on bitesize and watch free science lessons organic chemistry videos....

Think about products you use at home and assess their life cycles! Think about the raw materials, manufacturing, use and disposal

#### CHRISTMAS HOLIDAYS - CHRISTMAS HOLIDAYS - CHRISTMAS HOLIDAYS - CHRISTMAS HOLIDAYS

#### Topics being taught

**C3** Quantitative Chemistry Conservation of mass and mass changes when a reactant or

#### What you will be assessed on

How mass is conserved in a range of chemical reactions. Calculating the Mr and moles of a substance.

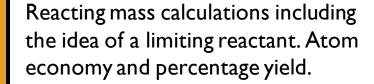
#### How you can support at home

Bitesize AQA quantitative Chemistry

# Autumn Term

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.



#### YII Mock 2

All GCSE units covered except the later content in C3 concentration calculations and gas calculations

Videos at <u>free science lessons</u> on this topic

#### How to do titrations!

Gas volumes and calculations

#### EASTER HOLIDAYS - EASTER HOLIDAYS - EASTER HOLIDAYS - EASTER HOLIDAYS - EASTER HOLIDAYS

#### Topics being taught

Final exam preparation and revision in class

What you will be assessed on

Paper I – Units I through 5

Paper 2 – Units 6 through 10 plus relevant content from Unit  $\frac{1}{2}$  and 3 (see specification for more detail)

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#### 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!

# Summer Term