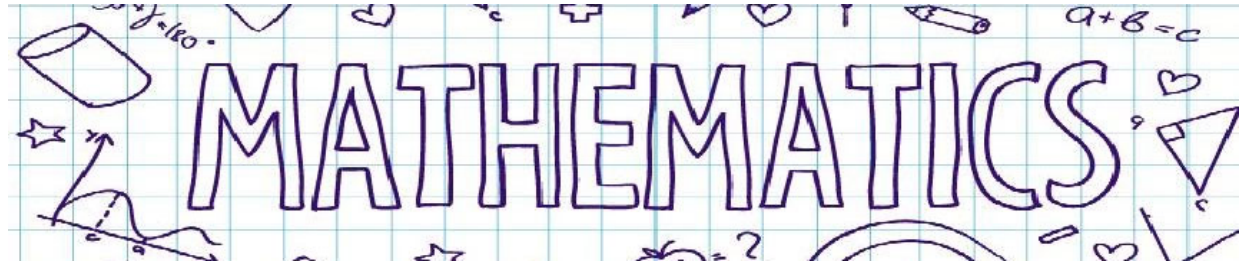


Practice makes perfect!

Useful websites to support revision:



Maths genie – Predicted exam papers, topic by topic exam questions, video solutions.

Maths Genie

Corbett Maths – 5 a day Maths questions, predicted papers, video tutorials.

On Maths – Virtual papers that self-mark.



Corbett
mαths

Homework – Predicted exam papers are being given to students, to be completed at home and in school.



	Number	Ratio	Algebra	Geometry	Probability	Statistics
Paper 1	<ul style="list-style-type: none"> Four operations Negative number Order of operations Estimation Fraction arithmetic Fraction of a number Laws of indices Standard form conversion and calculation Inequality notation Systematic listing 	<ul style="list-style-type: none"> Conversions: lengths Percentage of an amount Amount as a percentage Fraction less than 1 Ratio in simplest form Ratio to fraction Cost problem Density 	<ul style="list-style-type: none"> Linear equations Recognise graphs Plot graphs Linear graph Intersection of lines Interpret graphs Formula (reasoning) Sequence rule to find a term 	<ul style="list-style-type: none"> Naming circle part Types of triangle Translation Perimeter Sector of a circle Angles in triangles Constructions: region 	<ul style="list-style-type: none"> Probability: problem Venn diagram 	<ul style="list-style-type: none"> Two-way table Averages problem Outlier
Paper 2	<ul style="list-style-type: none"> Order of operations Fraction of a number Improper fraction Fraction to decimal Number line decimal Number problem Prime number Cube number Decimal place Inequality notation 	<ul style="list-style-type: none"> Time conversion Ratio and percentage Percentage increase Percentage decrease Ratio n : 1 form Proportion problem Scale diagram Better value Ratio to percentage Equation to percentage Rate of output 	<ul style="list-style-type: none"> Linear equations Equivalent expressions Terms Multiply out Factorisation Coordinates Midpoint Point on line Intercept of a line Gradient of a line Equation of a line 	<ul style="list-style-type: none"> Draw shape Quadrilateral Parallelogram Part of circle Pythagoras Time problem Area/volume: compound shape 	<ul style="list-style-type: none"> Relative frequency Expected value Tree diagram 	<ul style="list-style-type: none"> Pie chart Range Mean
Paper 3	<ul style="list-style-type: none"> Place value Factor Multiple Highest common factor Error interval Indices calculation Money problem Units of measure 	<ul style="list-style-type: none"> Conversions: lengths, time Share into a ratio Ratio problem Interpretation Ratio to graph Average speed Percentage increase Fraction to percentage 	<ul style="list-style-type: none"> Number machine Simplification Substitution Formula Graphs: roots, turning point Arithmetic sequence Geometric sequence nth term 	<ul style="list-style-type: none"> Name shape Regular shape Line symmetry Rotational symmetry Circle Cylinder Sphere Trigonometry Area/volume: compound shape Perimeter Alternate angles Vector arithmetic 	<ul style="list-style-type: none"> Frequency tree Estimate of probability 	<ul style="list-style-type: none"> Two-way table Vertical line diagram Mean from diagram Bar chart

	Number	Ratio	Algebra	Geometry	Probability	Statistics
Paper 1	<ul style="list-style-type: none"> Decimal arithmetic Fraction arithmetic Fraction of a number Value as fraction of another Recurring decimals as fractions Percentage as operator Laws of indices Standard form conversion and calculation Surds simplification 	<ul style="list-style-type: none"> Ratio in simplest form Proportion problem 	<ul style="list-style-type: none"> Equation of a straight line Linear equations Identity Simplification of algebraic fraction Simplification Factorisation of quadratic Change subject Recognise graphs Sketch function Speed time Inequality region Interpret graphs Algebraic sequences 	<ul style="list-style-type: none"> Congruence Prism Faces Exact trigonometric values Sector of a circle Vector geometry Constructions: region 	<ul style="list-style-type: none"> Venn diagram Tree diagram Expected value Independent events 	<ul style="list-style-type: none"> Cumulative frequency
Paper 2	<ul style="list-style-type: none"> Prime number Cube number Reciprocal Decimal places Bounds Fractions: products Negative indices 	<ul style="list-style-type: none"> Share into a ratio Ratio on a line Fraction to percentage Time conversion Equation to percentage Rate of output Pressure Percentage increase Percentage decrease 	<ul style="list-style-type: none"> Equation of a circle Linear equations Quadratic equations Number line inequality Factorisation of quadratic Multiply out Completing the square Coordinate problem Perpendicular lines Turning point Inverse functions Triangular numbers 	<ul style="list-style-type: none"> Area/volume: compound shape, cone, hemisphere Volume scale factor Plan Pythagoras Time Geometric proof 	<ul style="list-style-type: none"> Relative frequency Expected value Notation 	<ul style="list-style-type: none"> Estimation from sample Pie chart Mean
Paper 3	<ul style="list-style-type: none"> Highest common factor Lowest common multiple Error interval Ordering decimals Recurring decimals Product rule for counting 	<ul style="list-style-type: none"> Share into a ratio Average speed Population density Percentage increase Compound interest 	<ul style="list-style-type: none"> Quadratic equations Simultaneous linear/quadratic Simplification Triple bracket Factorisation Quadratic (manipulation) Graphs: roots, turning point Quadratic graph Exponential graph Composite functions Arithmetic sequence Geometric sequence nth term 	<ul style="list-style-type: none"> Area/volume: compound shape, cylinder Quadrilateral Circle theorems Trigonometry Sine/cosine rule Vector arithmetic Bearings 	<ul style="list-style-type: none"> Independent events 	<ul style="list-style-type: none"> Two-way table Histogram Box plot Median, quartiles Interquartile range Line of best fit Outlier

Advanced Information for Maths. Every student has a copy of this. This is information about what is coming up on each paper. This should be the first place students go to when doing general revision in the lead up to exams. This is also on Show My Homework.

English Literature

All past papers are available on the AQA website and there are a selection on Show My Homework - students should be practicing with past papers in timed conditions for this exam.

- The texts they need to be familiar with are: **Macbeth, A Christmas Carol, and An Inspector Calls.** - Key - the plot, characters and context.
- Students have been given **20 key quotes per text** that they should know off by heart. Help them learn these at home.
- Students will also have an unseen poetry question - they should use past papers to prepare for this section.

The English Language key terms to discuss language and structure are relevant to the literature GCSE too.

English Language

All past papers are available on the AQA website and there are a selection on Show My Homework - students should be practicing with past papers in timed conditions for this exam.

- The content is all unseen but they can **revise key terms to discuss language and structure**. They have lists in their English book and in the revision guide but please ask teachers if they are still unsure.
- (Covid pre-release) Language Paper 2: The texts they will read will be from an autobiography and an essay. They will be asked to write a newspaper article.

Science Revision Homework

Students are being given printed past papers as homework in Science. The students are advised to follow the 'three pen' method for completing their past papers (see below right).

To support students, they can visit SMHW to access additional videos and quizzes on the topics they find hard.

Oak National Academy Video Links

Key Stage 4, Combined Science, Organic Chemistry (FT)

Unit Quiz

Test your knowledge across this topic to understand the areas you may need to work on.

See All Unit Quizzes

Take Unit Quiz

Lesson 1

Crude oil and alkanes

25m video

Lesson 2

Fractional distillation

20m video

Homework exam questions

Hydrocarbon exam questions

Q1.

Propane, C_3H_8 , and butane, C_4H_{10} , are members of the same homologous series, called the alkanes.

(i) Explain why both propane and butane are alkanes.

(ii) Draw the structure of a molecule of butane, C_4H_{10} , s

Answers

Question Number	Answer	Acceptable answers	Mark
(i)	An explanation including any two of the following <ul style="list-style-type: none">same <u>general</u> formula (1)have similar/same chemical reactions/properties (1)both saturated/(both only) have single bonds / (both) have no double bonds (1)	C_nH_{2n+2} = 2 marks allow both hydrocarbons / both contain hydrogen and carbon (only) allow both end in -ane allow (molecular) formulae differ by CH_2	(2)

Three pen method to complete the homework:

- 1st colour- answer the questions with no support
- 2nd colour- add to the answers using bitesize, revision guides etc
- 3rd colour- Use the mark schemes to complete the answers

Science - Advanced Information from Exam Boards

There is a Student friendly version of the exam board advanced information on SMHW. This will help students focus their revision on content they know will come up in the exam.

The document contains video links and revision guide pages to support each aspect of the pre-release content.

It is especially important that students **watch the 'Core Practical' videos and complete the revision activities** on these as they will be worth a large number of marks in the exams.

Specific content to revise for the final exams- Make sure you are looking at the right sheet, either foundation or higher
11RX/Sc Science
 Ms R. Griggs

Combined Science Biology Paper 1 Higher Tier Revision List 2022 Spec points

Exam date – Tuesday 17th May AM

This is a list of the main topics that will be assessed on the biology paper 1 exam in Summer 2022. There will be short answer questions on topics not in this list so it is important that you have a good understanding of everything you have learned, you can use this list to focus your detailed revision.

Specification Point	Video lesson Link	Video revision Link
Topic 1 – Key concepts in biology (enzymes)		
1.6 <i>Core practical - Investigate biological specimens using microscopes, including magnification calculations and labelled scientific drawings from observations</i>	Microscopes, magnification and resolution Using the microscope and magnification equation Viewing animal cells under the microscope and calculating magnification	Using a Light Microscope (BBA) Microscope Calculations (BBA) Using Microscopes: Cells in LESS THAN 1 MINUTE!! (kayscience) Looking at cells (Pearson)
1.7 Explain the mechanism of enzyme action including the active site and enzyme specificity	All of Enzymes in 40 MINUTES!!! (kayscience)	Enzyme Function (BBA) Enzymes Lock & Key Theory (kayscience) Lock & Key Theory in LESS THAN 1 MINUTE!! (kayscience)
1.8 Explain how enzymes can be denatured due to changes in the shape of the active site		Enzyme Graphs (BBA)
1.9 Explain the effects of temperature, substrate concentration and pH on enzyme activity	Investigating enzymes	Denaturing of Enzymes in One Minute (kayscience)