

Welcome

Year 11 Information Evening

Key Dates for Year 11 – Exam Countdown

Window 1 – 6th November – 18th November 2024

- Three and a Half Weeks to Half Term
- Eight weeks till the next mock window

Window 2 – 27th January – 14th February

- Eleven weeks to the official summer window from there!

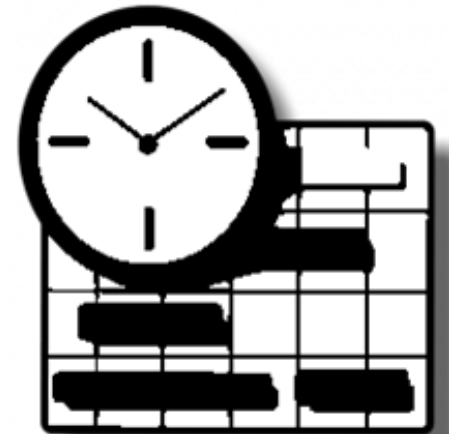
Scary Fact

- **Approximately 23 school weeks till the Summer Exam Season (from now)**

But...

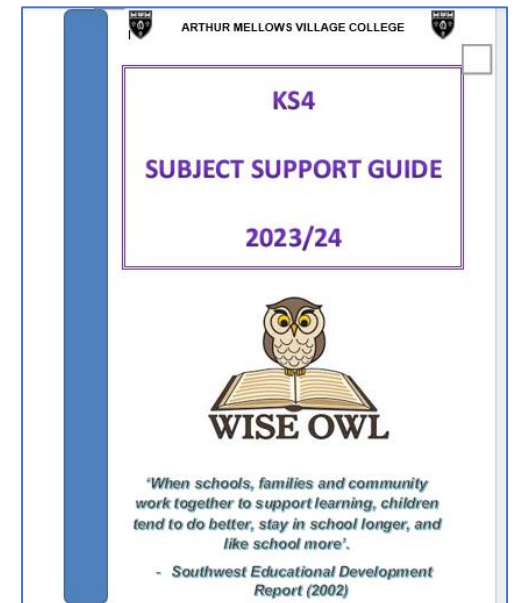
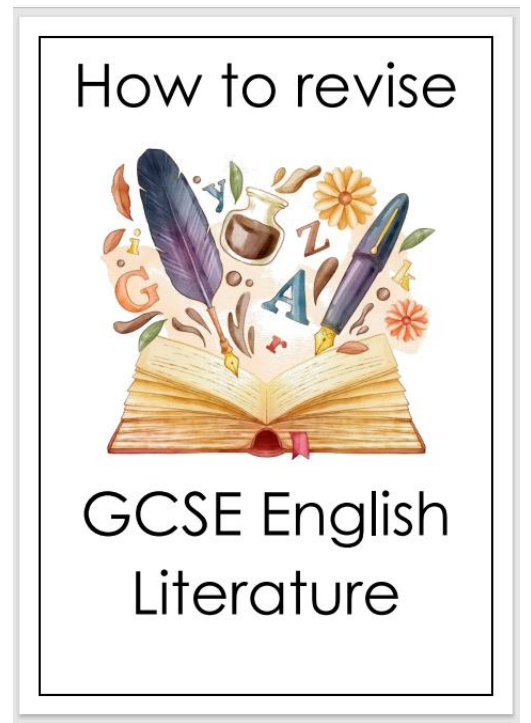
October half term, Christmas, February Half Term, Easter – 6 extra weeks

My English class – (11 lessons a fortnight) approx. 126 lessons...



What we offer:

- A coordinated series of published Revision Sessions throughout the year.
- Flourish and Fly Collapsed Day – 23rd October
- Lots of information and support for Revising in each subject area.
- Subjects use Teams to share resources and useful material.
- Students' Books and Folders are a vital resource.
- Wellbeing and Mindfulness support in school and through tutor time.
- Revision approaches delivered in Tutor Time.
- Use our Key Stage Four Subject Support Guide to more information.
- More Revision Events for Parents – more guidance on how to revise later in the year.
- Year 11 – motivational assemblies, the results experience, Study Skills



Learn



Revise



Test



How to Prepare for Examinations

Your lessons are vital:

Learn



- Make the most of lesson time! **Learning takes place in class**, when you are completing **homework** or doing **additional research**.
- It is important that you **fully understand each topic** before you can revise it.
- If there is anything you don't fully understand, re-read the textbook, ask your teacher, ask another student to go over the topic with you.
- Keep your exercise books!

Okay – so what now?

Three Stages – plan ahead:

Stage One – Memory Bank/Knowledge Recall (NOW)

Learn



Posters, mind maps, lists, highlighting stuff, note making, flash cards, quizzes, using images.

Stage Two – Preparing for the Actual Exam (before half term and during)

Revise



Using past papers, timed writing, random extracts, annotating sample answers.

Stage Three – Confidence Building (just before/day before exams)

Test



Test your recall and make yourself feel good about what you can do.

Strategies – Memory and Recall



- Flash cards
- Retrieval quizzes (Seneca/set your own/use BBC Bitesize)
- Condensing your notes
- Flow charts
- You tube videos (Mr Bruff in English) Useful for extra information.
- Dual Coding – using images and words to help visualise information.
- Chunking, Linking topics

Strategies – building confidence and experience

- Know what you'll be tested on. Use these:

Exam Board Website/BBC Bitesize/Study Guides/Your Exercise Books

- Check the Specification
- Know the Assessment Objectives
- Know the question types, timing and marks
- Get hold of past papers
- Look at Exam Board reports
- Timed writing – check mark scheme – do it all again
- Repetition – get good at what you need to do



Making a Revision Timetable

- Map your subjects – break down into topics
- Create a timetable:
 - Aim to revise a little every day
 - Put the timetable up on the wall or fridge at home where everyone can see it. Ask your family to help you keep to it (Don't forget to block in down time and fun stuff.)

Day	9:00 – 10:15	10:35 – 11:50	11:55 – 13:10	13:10 – 14:00	14:00 – 15:15	15:30 – 16:00	16:00 – 17:00	15:00 – 18:00	18:00 – 19:00	19:00 – 20:00	20:00 – 21:00	21:00 – 22:00
Monday				L		English	RE	Break	Music	English	Relax	Relax
Tuesday						Science	Break	Break	Maths	Geography	Relax	Relax
Wednesday				N		Break	Geography	English	Break	Maths	Music	Relax
Thursday				C		Maths	Science	Break	Business Studies	Relax	Relax	Relax
Friday				H		Walk	Break	English	Break	Maths	Business Studies	Relax
Saturday	Science	Maths	Geography	Science	Free	Free	Free	Free	Relax	Relax	Relax	Relax
Sunday	Geography	Free	Free	Relax	Relax	Science	maths	Break	Geography	RE	Relax	relax



Subject Presentations Tonight

- English – Miss Jeffs
- Maths – Miss Marshall
- Science – Mrs Debbage
- Surviving Exam Season – Miss Kavanagh



English

Miss Jeffs



AQA: GCSE English Language

'Students of all abilities will develop the skills they need to read, understand and analyse a wide range of different texts covering the 19th, 20th and 21st century time periods as well as develop the skills to write clearly, coherently and accurately using a range of vocabulary and sentence structures.'

(AQA, specification overview)

English Language

- GCSE English Language will result in a separate GCSE grade to that of Literature
- All students will sit two exams: each exam is worth 50%
- Each exam is divided into two sections: section A assesses reading skills (25%) and section B assesses writing skills (25%)
- All students have to complete a compulsory speaking assessment that is graded as pass/merit/distinction by the teacher but DOES NOT count towards the GCSE grades

GCSE English Language

Paper 1: 1hr 45 mins

Reading:

- One literature fiction text with four questions (40 marks)

Writing:

- Writing a description or a story (40 marks)

Paper 2: 1hr 45mins

Reading:

- Two non-fiction texts with four questions (40 marks)

Writing:

- Writing to express a viewpoint (40 marks)



Edexcel: GCSE English Literature

'The specification aims to enable students to read a wide range of classic literature fluently and with good understanding, and to make connections across their reading. Students are encouraged to read in depth, critically and evaluatively, so that they are able to discuss and explain their understanding and ideas'.

(Edexcel, specification overview)



English Literature

- GCSE English Literature will result in a separate GCSE grade to that of Language
- All students will sit two exams: Paper 1 is worth 50% and Paper 2 is worth 50%

GCSE English Literature

Paper 1: 1hr 45 mins (80 marks)

Section A: Shakespeare

Macbeth or Romeo and Juliet

(40 marks)

Section B: Post-1914 British play

An Inspector Calls

(40 marks)

Paper 2: 2 hrs 15 mins (80 marks)

Section A: 19th Century Novel

Jekyll and Hyde or A Christmas Carol

(40 marks)

Section B:

Part 1: poetry collection

Conflict poetry

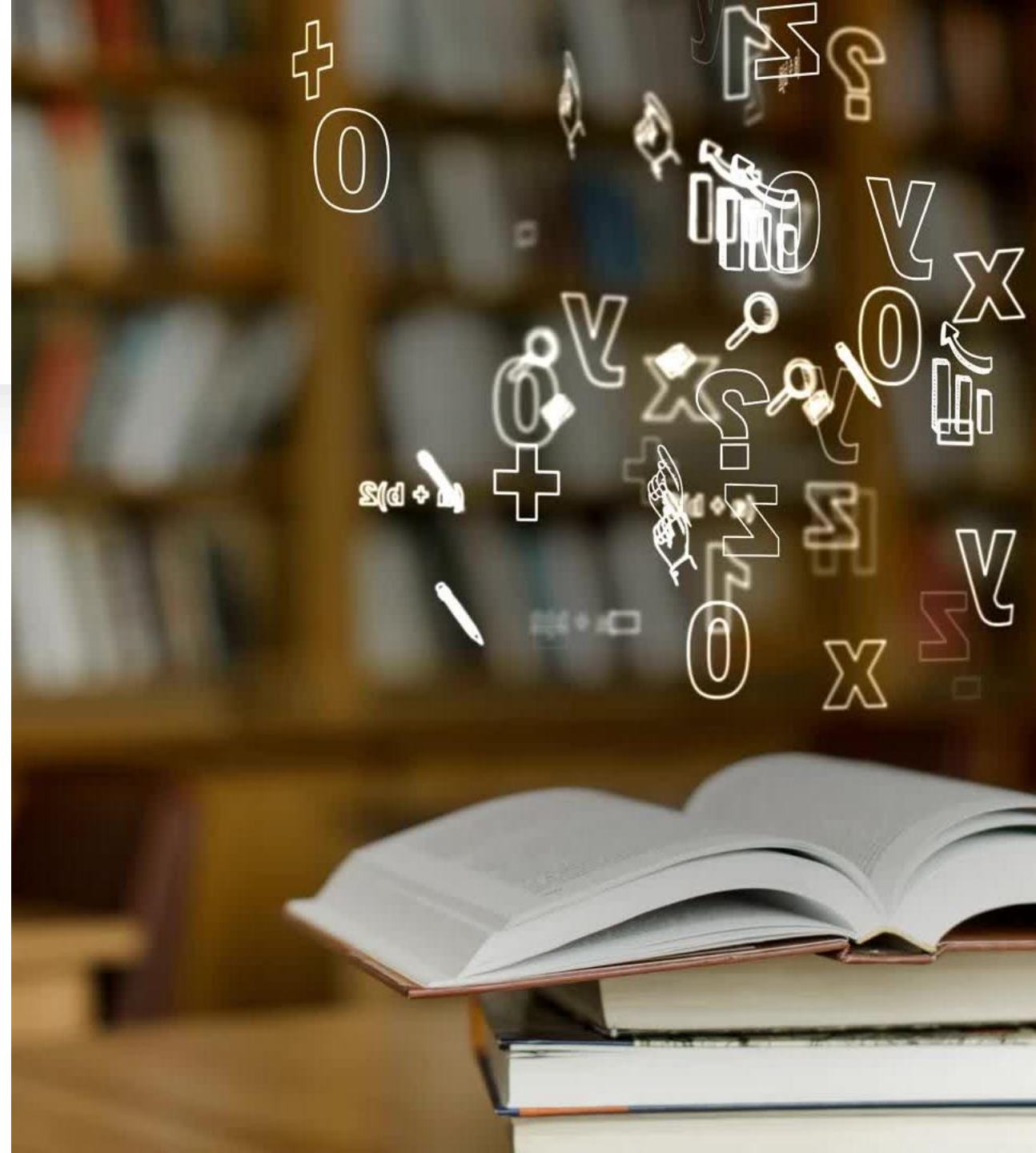
(20 marks)

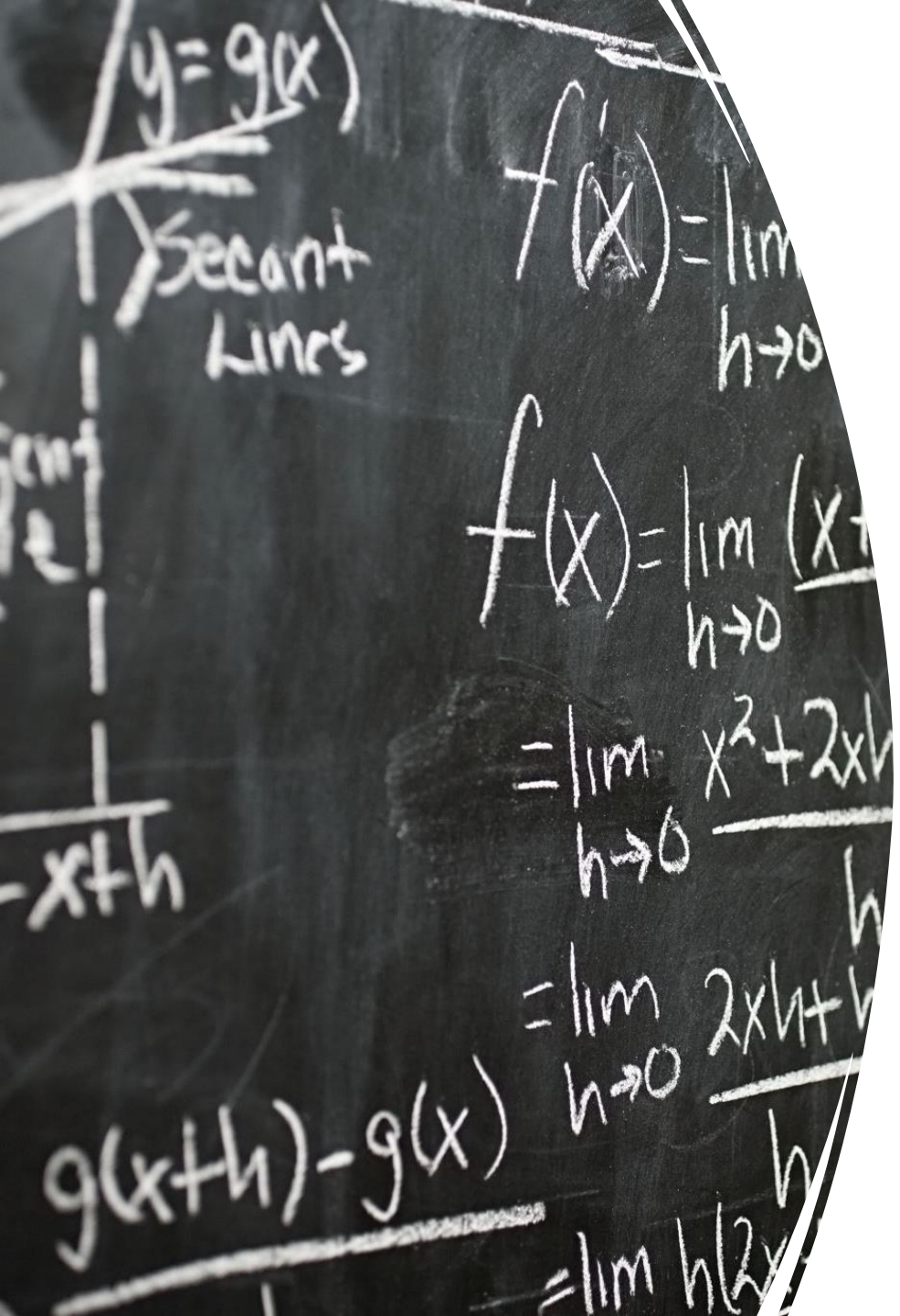
Part 2: two unseen poems

(20 marks)

Enhancing the curriculum

- Massolit
- Digital Theatre +
- English and Media Centre magazine
- The Day (library)
- Seneca
- Parents are emailed with a 'How to support your Child' guide (Sway)





Maths

Miss Marshall

EXAM INFORMATION

Exam Board – Edexcel (Pearson)

Higher Tier (Grades 4 - 9)

Foundation Tier (Grades 1 - 5)

Paper 1 – Non-Calculator

80 marks

90 mins

Thursday 15 May (Morning)

Paper 2 – Calculator

80 marks

90 mins

Wednesday 4 June (Morning)

Paper 3 – Calculator

80 marks

90 mins

Wednesday 11 June (Morning)

CONTENT COVERED

Higher Key Topics:

Number skills, Algebraic manipulation, Averages, Equations, Sequences

Data representation and collection, Trigonometry, Pythagoras, Inequalities, Ratio and Angles.

Foundation Key Topics:

Number Skills, Algebraic manipulation, Representing data, Angles, Linear Equations, Sequences, Inequalities, Quadrilaterals, Perimeter, Area, Volume of basic shapes.

CONTENT STILL TO BE COVERED

Higher Key Topics:

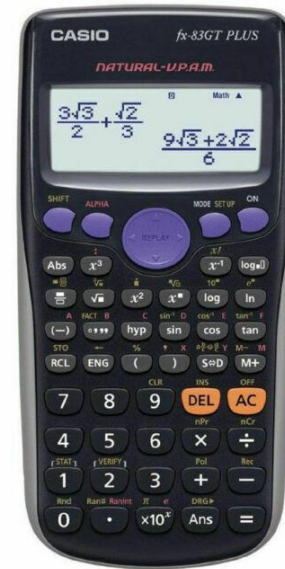
Constructions and Loci, Functions, Circle Geometry,
Simultaneous Equations, Vectors, Algebraic fractions, proof,
Probability, Similarity

Foundation Key Topics:

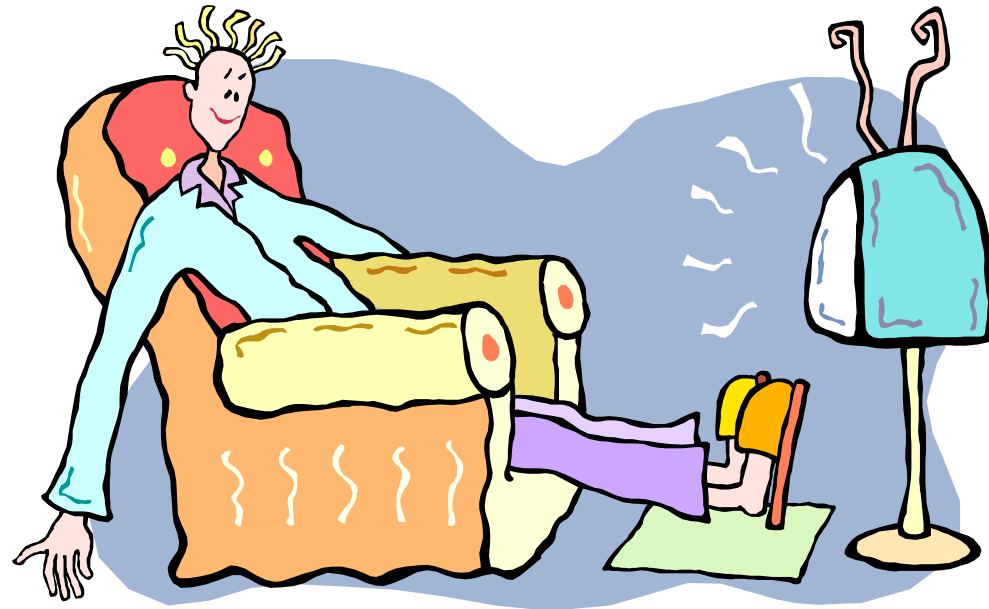
Proportion, Bearings, Quadratics, Similarity
Simultaneous Equations, Probability.

REQUIRED EQUIPMENT

- Pen
- Pencil
- Ruler
- Geometry Equipment (compasses and protractor)
- Scientific calculator
 - Casio FX83-GT range
 - These are needed for both mock and real examinations.



Maths revision is not a
spectator sport



HOW TO PREPARE FOR GCSE MATHS

- **PRACTICE, PRACTICE AND MORE PRACTICE...**
- **Five a day questions**
- **Topic Specific Revision**
- **Maths passports**
- **Examination Papers**
- **Revision Sessions**
 - **Will run afterschool from January until Easter**
 - **Letters containing sign up details will be sent out later in the year.**

Exam Papers

- Will be covered in lessons/ as homework's with increasing regularity as the year progresses.
- Students should endeavour to increase the marks they gain as the year progresses.
- Topics not completed well are ideal areas of focus for topic- based revision.

USEFUL WEBSITES

- **Maths Genie (Exam Style Questions on Every Topic)**
<https://www.mathsgenie.co.uk/>
- **Mathed Up (Exam Style Questions on Every Topic)**
<https://www.mathedup.co.uk/>
- **Corbett Maths (A range of resources)**
<https://corbettmaths.com/>
- **Maths Watch VLE (Videos and practice questions)**
<https://vle.mathswatch.co.uk/vle/>

USEFUL WEBSITES

Maths Genie

[Home](#)

[GCSE Revision](#)

[A Level Revision](#)

[New Spec A Level](#)

[GCSE Exam Papers](#)

[A Level Exam Papers](#)

[Resources](#)

USEFUL WEBSITES

Grade 4

Topic	Example(s)	Exam Questions	Solutions
Compound Interest and Depreciation	Revision	Compound Interest and Depreciation	Solutions
Indices	Revision	Indices	Solutions
HCF and LCM	Revision	HCF, LCM	Solutions
Functional Maths Questions		Functional Questions	Solutions
Inequalities	Revision	Inequalities	Solutions
Forming and Solving Equations	Revision	Forming and Solving Equations	Solutions
Types of Sequences	Revision		
Generating Sequences	Revision		
Sequences (Nth Term)	Revision	Sequences (nth term)	Solutions
Expanding and Factorising	Revision	Expand and Factorise	Solutions
Pythagoras	Revision	Pythagoras	Solutions
Angle Problems	Revision	Angles	Solutions

USEFUL WEBSITES

The image shows a screenshot of the Corbettmaths website. The header is dark grey with the text 'Corbettmaths' and 'Videos, worksheets, 5-a-day and much more'. Below the header is a navigation bar with links: 'Welcome', 'Videos and Worksheets', '5-a-day', 'More Resources', 'About', and 'Revision Cards'. The main content area has a 'Welcome' heading followed by a list of resources: '5-a-day', 'Videos', 'Worksheets', 'Practice Papers', and 'Practice Questions'. The words 'Videos' and 'Worksheets' are circled in red.

Corbettmaths
Videos, worksheets, 5-a-day and much more

Home Welcome Videos and Worksheets 5-a-day More Resources About Revision Cards

Welcome

5-a-day
Videos
Worksheets
Practice Papers
Practice Questions

Videos and Worksheets

Videos and Worksheets

[Click here for answers](#)

[Common marking codes for teachers](#) [Marking codes](#)

[2D shapes: names](#) [Video 1](#) [Practice Questions](#) [Textbook Exercise](#)

[2D shapes: quadrilaterals](#) [Video 2](#) [Practice Questions](#) [Textbook Exercise](#)

[3D shapes: names](#) [Video 3](#) [Practice Questions](#) [Textbook Exercise](#)

[3D shapes: nets](#) [Video 4](#) [Practice Questions](#) [Textbook Exercise](#)

[3D shapes: vertices, edges, faces](#) [Video 5](#) [Practice Questions](#) [Textbook Exercise](#)

[Addition: column method](#) [Video 6](#) [Practice Questions](#) [Textbook Exercise](#)

[Algebra: changing the subject](#) [Video 7](#) [Practice Questions](#) [Textbook Exercise](#)

[Algebra: changing the subject advanced](#) [Video 8](#) [Practice Questions](#) [Textbook Exercise](#)

[Algebra: collecting like terms](#) [Video 9](#) [Practice Questions](#) [Textbook Exercise](#)

[Algebra: completing the square](#) [Video 10](#) [Practice Questions](#) [Textbook Exercise](#)


[Algebra: dividing terms](#) [Video 11](#) [Practice Questions](#) [Textbook Exercise](#)

[Algebra: equation of a circle](#) [Video 12](#) [Practice Questions](#) [Textbook Exercise](#)

[Algebra: expanding brackets](#) [Video 13](#) [Practice Questions](#) [Textbook Exercise](#)

USEFUL WEBSITES

Video



MathsWatch

Please choose a video in the menu opposite.

Find a Clip

Qualification

Tier

Grade

Topic

Search

Choose Clip (245)

Clip	Title
1	Place Value
2	Ordering Integers
3	Ordering Decimals
4	Reading Scales
5	Simple Mathematical Notation
6a	Real-Life Tables - Time
6b	Real-Life Tables - Timetables and Distance Tab
7	Introduction to Algebraic Conventions

USEFUL WEBSITES

The screenshot shows a video player interface. At the top, there is a blue navigation bar with three tabs: "Clip 32 Rounding to Decimal places", "One Minute Maths" (circled in red), "Interactive Questions", and "Worksheet". The main video area has a blue background with the text "Clip 32" and "ROUNDING TO DECIMAL PLACES" in large yellow letters. At the bottom left of the video player, a play button and a progress bar are visible, with the time "04:33" (circled in red) displayed. To the right of the video player is a sidebar with a "Find a Clip" section containing dropdown menus for "Qualification" (GCSE), "Tier" (All), "Grade" (All), and "Topic" (All), and a search box containing "32". Below this is a "Choose Clip (2)" section with a table listing clips.

Clip	Title
32	Rounding to Decimal places
132	Introduction to Bounds

THINGS TO LOOK OUT FOR

Letters about 5 a day question practice

Maths passports will be provided to students before Feb half term

Letters about after school revision

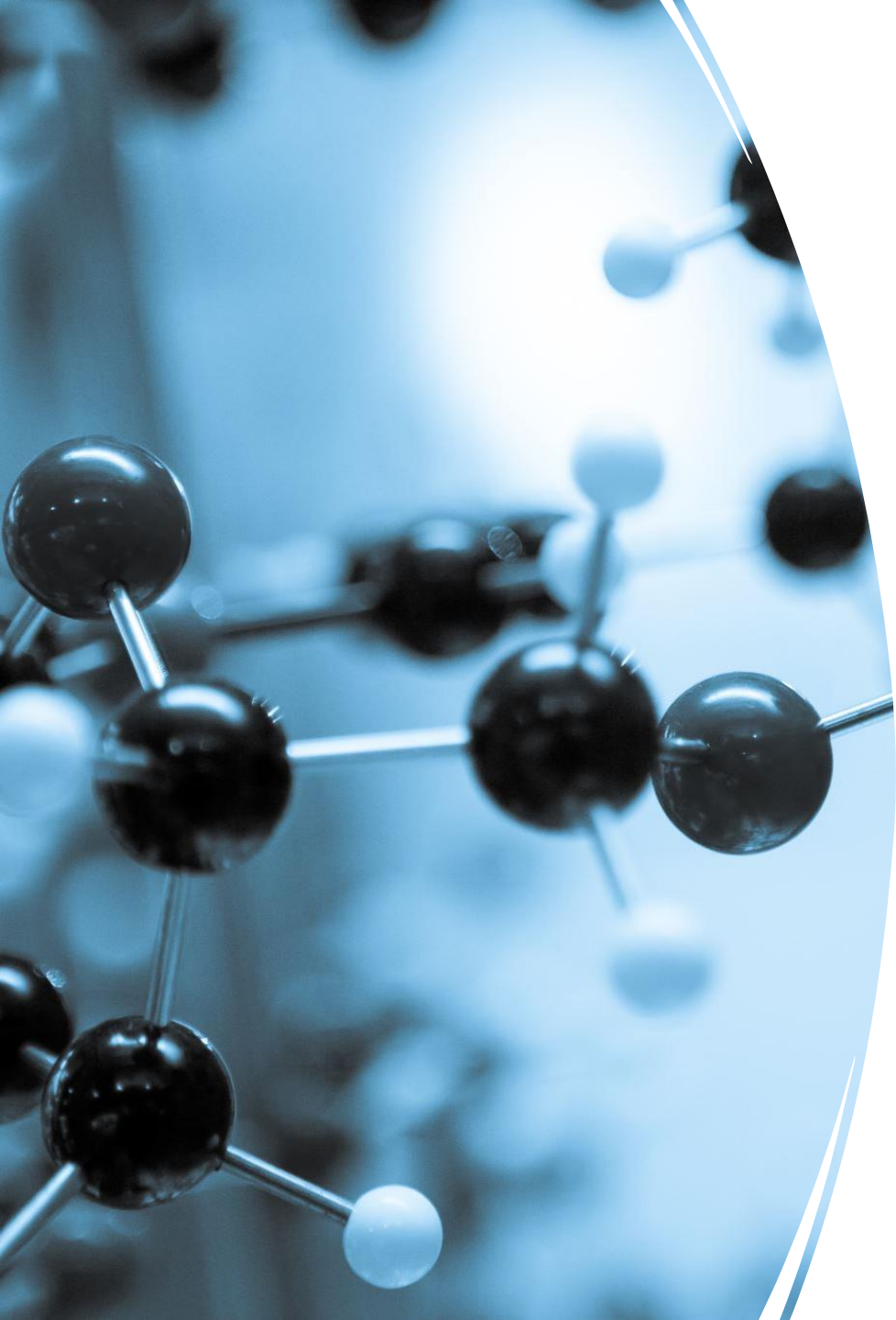
Letters about further revision opportunities later in the year

Predicted topic lists and best guess papers will be emailed out after papers 1 and 2

One last thing

Remember the best way to revise maths is to do maths





Science

Mrs Debbage

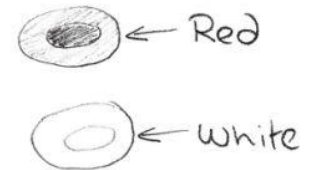
How to Prepare for Science



Describe the purpose of cytoplasm.
In Ghostbusters II it was used
to make the Statue of Liberty
come to life. I've never seen
it used since.

What's the difference between red blood cells and white blood cells?

Some are red,
Others are white.



© Richard Benson

GCSE Exam Dates

Everyone will sit a total of 6 science papers; 2 for each Biology, Chemistry and Physics.

Paper 1:

Biology – Tuesday 13th May PM

Chemistry – Monday 19th May AM

Physics – Thursday 22nd May AM

Paper 2:

Biology – Monday 9th June AM

Chemistry – Friday 19th June AM

Physics – Monday 22nd June AM



Exam Content – Paper 1 (November Mocks)

BIOLOGY

- B1: Cell Biology
- B2: Organisation
- B3: Infection and Response
- B4: Bioenergetics

PHYSICS

- P1: Energy
- P2: Electricity
- P3: Particle Model
- P4: Atomic Structure

CHEMISTRY

- C1: Atomic Structure and the Periodic Table
- C2: Structure and Bonding
- C3: Quantitative Chemistry
- C4: Chemical Changes
- C5: Energy Changes

Exam Content – Paper 2 (March Mocks)

BIOLOGY

B5: Homeostasis and response

B6: Inheritance, variation and evolution

B7: Ecology

PHYSICS

P5: Forces

P6: Waves

P7: Magnetism and Electromagnetism

P8: Space (Single only)

CHEMISTRY

C6: Rates of Reaction

C7: Organic Chemistry

C8: Chemical Analysis

C9: Chemistry of the Atmosphere

C10: Using Resources

A yellow pencil is positioned vertically on the left side of a white sheet of paper. The paper contains a list of 24 multiple-choice questions, each with five options labeled A, B, C, D, and E. The questions are numbered 2 through 24. The pencil is pointing towards the top of the page.

Exam Content

- Papers contain a mixture of multiple choice, short answer and long answer (max 6 marks) questions.
- No QWC marks.
- Maths skills:
 - Biology 10%
 - Chemistry 20%
 - Physics 30%
- Knowledge of the required practical and practical skills
 - All three 25% each.

Grading & Tiers of Entry

- Chosen to ensure your child can achieve the highest grade possible.
- Foundation = Grades 1-5/11-55
 - Single science ~60% for a grade 4
 - Combined science ~55% for a grade 44
- Higher = Grades 3-9/43-99
 - Single science ~30% for a grade 4
 - Combined science ~25% for a grade 44
- November mocks will be used to determine tier of entry for most students.
 - Students require ~30% to take higher.
 - Final decision for borderline students after 2nd mock window in March.




But where do they/you begin?



Assess current knowledge

- Using Personal Learning Checklist, go through each topic and RAG their current understanding of each of the statements in the checklist.


Personalised Learning Checklist P2 Electricity

Topic	Student Checklist	R	A	G
4.2.1 Current, potential difference and resistance	Draw and interpret circuit diagrams, including all common circuit symbols			
	Define electric current as the rate of flow of electrical charge around a closed circuit			
	Calculate charge and current by recalling and applying the formula: $[Q = It]$			
	Explain that current is caused by a source of potential difference and it has the same value at any point in a single closed loop of a circuit			
	Describe and apply the idea that the greater the resistance of a component, the smaller the current for a given potential difference (p.d.) across the component			
	Calculate current, potential difference or resistance by recalling and applying the equation: $[V = IR]$			
	<i>Required practical 3: Use circuit diagrams to set up and check circuits to investigate the factors affecting the resistance of electrical circuits</i>			
	Define an ohmic conductor			
	Explain the resistance of components such as lamps, diodes, thermistors and LDRs and sketch/interpret IV graphs of their characteristic electrical behaviour			
	Explain how to measure the resistance of a component by drawing an appropriate circuit diagram using correct circuit symbols			
4.2.2 Series and parallel circuits	<i>Required practical 4: use circuit diagrams to construct appropriate circuits to investigate the I-V characteristics of a variety of circuit elements</i>			
	Show by calculation and explanation that components in series have the same current passing through them			
	Show by calculation and explanation that components connected in parallel have the same the potential difference across each of them			
	Calculate the total resistance of two components in series as the sum of the resistance of each component using the equation: $[R_{total} = R_1 + R_2]$			
	Explain qualitatively why adding resistors in series increases the total resistance whilst adding resistors in parallel decreases the total resistance			
4.2.3 Domestic circuits and safety	Solve problems for circuits which include resistors in series using the concept of equivalent resistance			
	Explain the difference between direct and alternating voltage and current, stating what UK mains is			
	Identify and describe the function of each wire in a three-core cable connected to the mains			
	State that the potential difference between the live wire and earth (0 V) is about 230 V and that both neutral wires and our bodies are at, or close to, earth potential (0 V)			
	Explain that a live wire may be dangerous even when a switch in the mains circuit is open by			

Assess current knowledge

- Use the RAG checklist to identify a topic of concern.
- Look down the list and focus on the areas highlighted in red first, followed by those in amber.



Personalised Learning Checklist P2 Electricity

Topic	Student Checklist	R	A	G
4.2.1 Current, potential difference and resistance	Draw and interpret circuit diagrams, including all common circuit symbols			Green
	Define electric current as the rate of flow of electrical charge around a closed circuit			Green
	Calculate charge and current by recalling and applying the formula: $[Q = It]$		Amber	
	Explain that current is caused by a source of potential difference and it has the same value at any point in a single closed loop of a circuit	Red		
	Describe and apply the idea that the greater the resistance of a component, the smaller the current for a given potential difference (p.d.) across the component	Red		
	Calculate current, potential difference or resistance by recalling and applying the equation: $[V = IR]$		Amber	
	<i>Required practical 3: Use circuit diagrams to set up and check circuits to investigate the factors affecting the resistance of electrical circuits</i>	Red		
	Define an ohmic conductor	Red		
	Explain the resistance of components such as lamps, diodes, thermistors and LDRs and sketch/interpret IV graphs of their characteristic electrical behaviour	Red		
	Explain how to measure the resistance of a component by drawing an appropriate circuit diagram using correct circuit symbols		Amber	
	<i>Required practical 4: use circuit diagrams to construct appropriate circuits to investigate the I-V characteristics of a variety of circuit elements</i>		Amber	
4.2.2 Series and parallel circuits	Show by calculation and explanation that components in series have the same current passing through them			Green
	Show by calculation and explanation that components connected in parallel have the same the potential difference across each of them			Green
	Calculate the total resistance of two components in series as the sum of the resistance of each component using the equation: $[R_{total} = R_1 + R_2]$		Amber	
	Explain qualitatively why adding resistors in series increases the total resistance whilst adding resistors in parallel decreases the total resistance			Green
	Solve problems for circuits which include resistors in series using the concept of equivalent resistance	Red		
Domestic and safety	Explain the difference between direct and alternating voltage and current, stating what UK mains is			Green
	Identify and describe the function of each wire in a three-core cable connected to the mains			Green
	State that the potential difference between the live wire and earth (0 V) is about 230 V and that both neutral wires and our bodies are at, or close to, earth potential (0 V)		Amber	

An alternative checklist can be found in the front of the Collins revision guide.

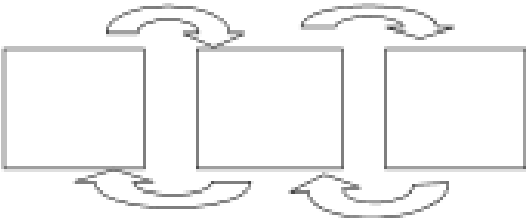
Contents			
	Revise	Practice	Review
The pH Scale and Acids The pH Scale Neutralisation of Acids Indicating Acids from Insoluble Bases Strong and Weak Acids	p. 116 <input type="checkbox"/>	p. 112 <input type="checkbox"/>	p. 118 <input type="checkbox"/>
Electrolysis Electrolysis Oxidation and Reduction Extraction of Metals Electrolysis of Aqueous Solutions	p. 118 <input type="checkbox"/>	p. 110 <input type="checkbox"/>	p. 151 <input type="checkbox"/>
Chemistry Paper 1 Energy Changes Exothermic and Endothermic Reactions Energy Profiles Energy Level Diagrams Measuring Energy Changes Measuring Energy Changes Energy Change of Reactions Energy Calculations	p. 120 <input type="checkbox"/>	p. 114 <input type="checkbox"/>	p. 152 <input type="checkbox"/>
Chemistry Paper 1 The Rate and Extent of Chemical Change Rate of Reaction Calculating the Rate of Reaction Collision Theory Writing Reaction Rates Reversible Reactions Equilibrium Reversible Reactions Closed Systems Changing Reaction Conditions	p. 124 <input type="checkbox"/>	p. 115 <input type="checkbox"/>	p. 153 <input type="checkbox"/>
Chemistry Paper 1 Organic Chemistry Alkanes Crude Oil and Hydrocarbons Fractional Distillation Alkanes Saturated Fuels Cracking Hydrocarbons Cracking Hydrocarbons Branched Alkanes	p. 136 <input type="checkbox"/>	p. 134 <input type="checkbox"/>	p. 174 <input type="checkbox"/>
Chemistry Paper 1 Chemical Analysis Chemical Analysis Atom and Isotope Substances Amplification Chromatography Gas Tests	p. 140 <input type="checkbox"/>	p. 135 <input type="checkbox"/>	p. 175 <input type="checkbox"/>

Higher Tier Content

Contents			
	Revise	Practice	Review
Chemistry Paper 2 Chemistry of the Atmosphere The Earth's Atmosphere The Earth's Atmosphere The Atmosphere Today Increase of Oxygen Levels Decrease of Carbon Dioxide Levels Greenhouse Gases Greenhouse Gases The Impact of Human Activities Global Climate Change Carbon Footprints	p. 142 <input type="checkbox"/>	p. 105 <input type="checkbox"/>	p. 175 <input type="checkbox"/>
Chemistry Paper 2 Using Resources Earth's Resources Sustainable Development Drinking Water Waste Water Treatment Alternative Methods of Extracting Metals Using Resources Life Cycle Assessment (LCA) Reducing the Use of Resources	p. 146 <input type="checkbox"/>	p. 107 <input type="checkbox"/>	p. 177 <input type="checkbox"/>
Physics Physics Paper 3 Forces Forces – An Introduction Solar and Vector Quantities Contact and Non-Contact Forces Gravity Resultant Forces Vector Diagrams Forces in Action Work Done and Energy Transfer Forces and Velocity Forces and Motion Distance and Displacement Speed Velocity Newton's First Law Distance–Time Graphs Forces and Acceleration Acceleration Velocity–Time Graphs Newton's Second Law	p. 158 <input type="checkbox"/>	p. 128 <input type="checkbox"/>	p. 198 <input type="checkbox"/>
	p. 166 <input type="checkbox"/>	p. 138 <input type="checkbox"/>	p. 199 <input type="checkbox"/>
	p. 162 <input type="checkbox"/>	p. 139 <input type="checkbox"/>	p. 199 <input type="checkbox"/>
	p. 164 <input type="checkbox"/>	p. 139 <input type="checkbox"/>	p. 199 <input type="checkbox"/>

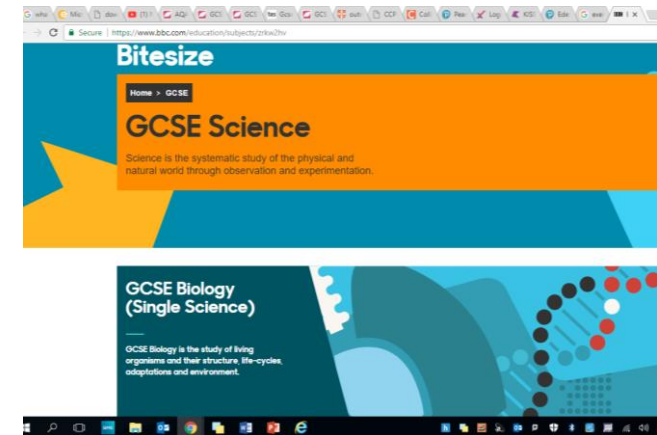
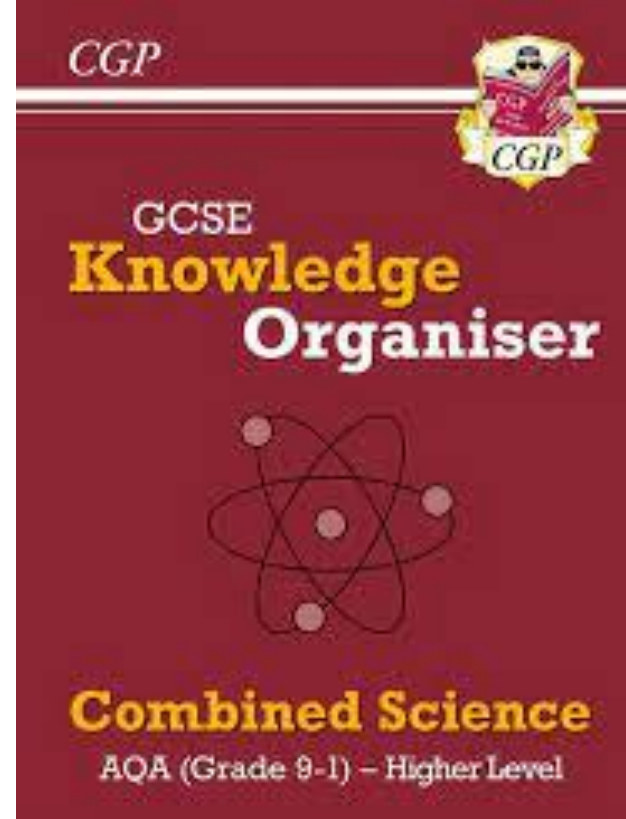
Higher Tier Content

Simplify your notes

<p>With reference to the particle model explain why solids are usually denser than liquids.</p>	<p>Draw a particle model of a solid, liquid and a gas</p> <p>Label the changes of state</p> 	<p>What is meant by the term 'internal energy'?</p>		
<p>Explain why changes of state are referred to as physical changes</p>		<p>How does heating change the energy stored within a system?</p>		
<p>When a system is heated what does the temperature change depend on? (3 things)</p>	<p>What is the specific latent heat of fusion?</p>	<p>3.1 – Particle model of matter</p> <p>Describe the movement of molecules in a gas.</p>	<p>What is the difference between heat and temperature?</p>	<p>Complete the units</p> <ul style="list-style-type: none"> • SHC = • SLH = • Energy = • Mass = • Volume = • Pressure = • Thermal energy = • Temperature =
<p>What is the specific heat capacity of a material?</p>				
<p>What is 'latent heat'?</p>	<p>What is the specific latent heat of vaporisation?</p>	<p>What happens to the pressure of a gas if it is heated and the volume remains the same?</p>	<p>EQUATIONS YOU MUST KNOW (and units)</p> <p>Density () =</p> <p>Equations to use:</p> <p>Change in thermal energy = mass x SHC x temp change</p> <p>Thermal energy for change of state = mass x SLH</p> <p>For gases: pressure x volume = constant</p>	

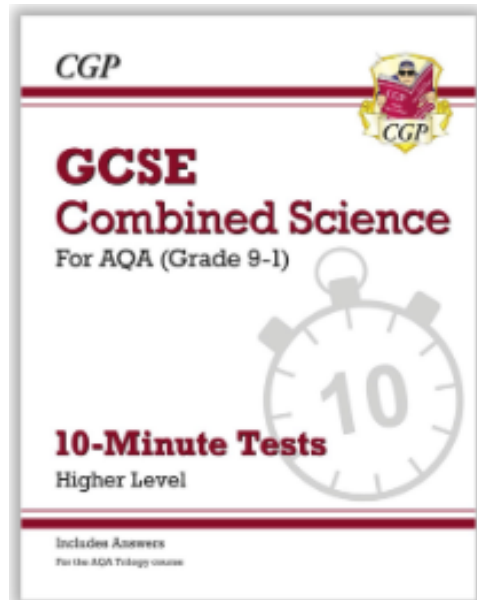
Filling in the gaps

- Collins Revision guide (sold in year 10)
- CGP Knowledge Organisers (sold in year 11)
- Class books
- BBC Bitesize
- YouTube (primrose kitten, free science lessons)



Test Your New Understanding

- Once you have gone over the key areas you needed to cover in a topic attempt some questions.
- These could be PiXL Grasp It's, a SENECA quiz, Collins/CGP revision guide worksheets, exam questions or using revision



Complete As Many Past Papers as Possible

- AQA past papers – AQA website
- AQA Specimen Papers – AQA website
- Use other exam board specimen papers (Edexcel and OCR)
- Old Exam Papers – physicsandmathstutor.com
- Purchase Exam Papers from CGP or Collins

Using an Exam Mark Scheme

- If it is underlined you MUST use that word.
- Do not accept means if you have said it, even with the right answer, you do not get the mark!
- If you get an accept mark look how you could have ensured you got the mark.

Q1.		
(a)	<u>solid</u> <u>particles</u> vibrate about fixed positions	1
	<u>closely packed</u> <u>accept</u> regular	1
	<u>gas</u> <u>particles</u> move randomly <u>accept</u> particles move faster <u>accept</u> freely for randomly	1
	<u>far</u> apart	1
(b)	<u>amount</u> of energy required to change the state of a substance from liquid to gas (<u>vapour</u>)	1
	<u>unit</u> mass / 1 kg <u>dependent</u> on first marking point	1
(c)	41000 or 4.1×10^4 (J) <u>accept</u> 41400 or 4.14×10^4 <u>correct substitution of</u> $0.018 \times 2.3 \times 10^6$ gains 1 mark	2
(d)	AB changing state from solid to liquid / melting	1
	<u>at</u> steady temperature <u>dependent</u> on first AB mark	1
	BC temperature of liquid rises	1
	<u>until</u> it reaches boiling point <u>dependent</u> on first BC mark	1

Keep Reassessing Your Knowledge

- At the start of the next 'science session' go back over the checklist and see how much has improved.



Personalised Learning Checklist P2 Electricity

Topic	Student Checklist	R	A	G
4.2.1 Current, potential difference and resistance	Draw and interpret circuit diagrams, including all common circuit symbols			Green
	Define electric current as the rate of flow of electrical charge around a closed circuit			Green
	Calculate charge and current by recalling and applying the formula: $[Q = It]$		Yellow	Green
	Explain that current is caused by a source of potential difference and it has the same value at any point in a single closed loop of a circuit	Red	Yellow	
	Describe and apply the idea that the greater the resistance of a component, the smaller the current for a given potential difference (p.d.) across the component	Red		
	Calculate current, potential difference or resistance by recalling and applying the equation: $[V = IR]$		Yellow	Green
	<i>Required practical 3: Use circuit diagrams to set up and check circuits to investigate the factors affecting the resistance of electrical circuits</i>	Red	Yellow	
	Define an ohmic conductor	Red	Yellow	Green
	Explain the resistance of components such as lamps, diodes, thermistors and LDRs and sketch/interpret IV graphs of their characteristic electrical behaviour	Red	Yellow	
	Explain how to measure the resistance of a component by drawing an appropriate circuit diagram using correct circuit symbols		Yellow	Green
4.2.2 Series and parallel circuits	<i>Required practical 4: use circuit diagrams to construct appropriate circuits to investigate the I-V characteristics of a variety of circuit elements</i>		Yellow	Green
	Show by calculation and explanation that components in series have the same current passing through them			Green
	Show by calculation and explanation that components connected in parallel have the same the potential difference across each of them			Green
	Calculate the total resistance of two components in series as the sum of the resistance of each component using the equation: $[R_{total} = R_1 + R_2]$		Yellow	Green
	Explain qualitatively why adding resistors in series increases the total resistance whilst adding resistors in parallel decreases the total resistance			Green
	Solve problems for circuits which include resistors in series using the concept of equivalent resistance	Red		

Other Key Areas to Revise

- Equations
- Equations
- Equations!!!!
- There is a total of 21.
- Put them up on your walls, use flash cards, go over them regularly and test yourself/your child.

GCSE Physics: Forces & Interactions Topic Equations

Equations you need to Recall (These are NOT given to you in the exam)

Weight = Mass × Gravitational Field Strength	$W = m g$	W in Newtons, N m in kg g in N/kg
Work Done by a Force = Force × Distance moved	$W = F s$	W in Joules, J F in Newtons, N s in metres, m
Force applied to a Spring = Spring Constant × Extension	$F = k e$	F in Newtons, N k in N/m e in metres, m
Moment of a Force = Force × Distance (normal to direction of force)	$M = F d$	M in Nm F in Newtons, N d in metres, m
Pressure = <u>Force Normal on the Surface</u> Area of the Surface	$p = \frac{F}{A}$	p in Pascals, Pa F in Newtons, N A in m ²

(*Normal' means at Right Angles to)

Equations you need to Use (These are given to you in the exam)

	Elastic Potential Energy = $\frac{1}{2} \times \text{spring constant} \times \text{extension}^2$	$E_e = \frac{1}{2} k e^2$	E_e in Joules, J k in N/m e in metres, m
HT	Pressure due to a Column of liquid = Height of Column × Density of Liquid × Gravitational Field Strength	$p = h \rho g$	P in Pascal, Pa h in metres, m g in N/kg P in kg/m ³

Other Key Areas to Revise

REQUIRED PRACTICAL

Chromatography

Method

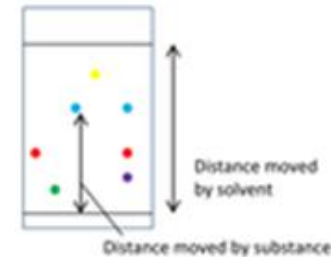
1. Draw a horizontal pencil line 2cm up from the bottom of some chromatography paper.
2. Mark five spots at equal distances along the line with a pencil.
3. Using glass capillary tubing put a small spot of each of the known colours onto four of the pencil dots. Put the unknown mixture onto the 5th spot.
4. Add water to a beaker to a depth of 1cm.
5. Tape the top of the chromatography paper to a glass rod, so that when the rod is rested on top of the beaker the bottom edge of the paper dips into the water but:
 - a. The pencil line is not in the water
 - b. The sides of the paper do not touch the beaker
6. Remove the chromatography paper when the solvent has travelled three quarters of the way up the paper.
7. With a pencil mark where the solvent has finished.
8. Allow to dry.
9. Measure the distance from the baseline to each spot of colour (substance) and the distance the solvent travelled.
10. Calculate R_f .

$$R_f = \frac{\text{Distance moved by substance}}{\text{Distance moved by solvent}}$$

The Science

Any markings need to be drawn in pencil as pencil is insoluble. If drawn in ink the ink may dissolve in the water and move up the paper.

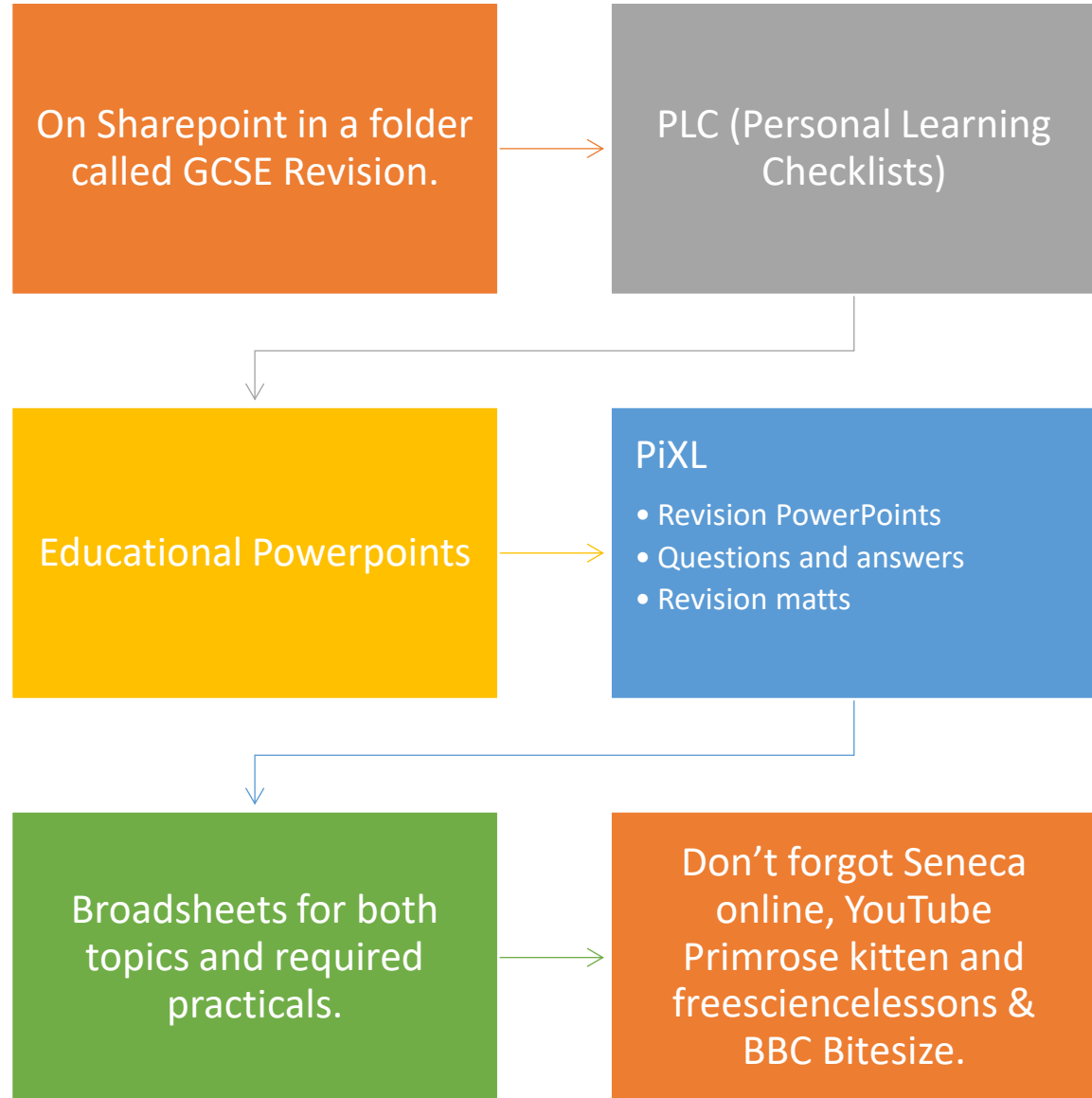
If this happens the ink spots will dissolve into the water.



In this example a visual comparison shows that the unknown mixture contained samples 1, 3 (moved the same distance) and something else.

Calculating the R_f would confirm matches to 1 and 3, although the method should be repeated in different solvents. If the R_f values for the mixture matched the same known samples in all solvents then a match is confirmed.

What resources do you have access to?





In School and After School Revision Sessions

- Currently every Monday lunchtime until the mocks finish.
- Rotates through Biology, Chemistry, Physics.
- We aim to send a positive sent home for all those who attend.
- After the 2nd set of mocks they will be every Monday and Thursday after school.

Wellbeing during Year 11



Thank
you

Good Luck

