

Welcome

Year 11 Information Evening

Welcome



Ms Lewis

Key Dates for Year 11 – Exam Countdown

Window 1 - 13th -24th November 2023

- Two and a Half Weeks to Half Term
- Two Weeks after Half Term

Window 2 - 26th February – 8th March

- Three weeks to Christmas
- Six and a half weeks until February Half Term

Scary Fact

- Approximately 25 school weeks till the Summer Exam Season (from now)

But...

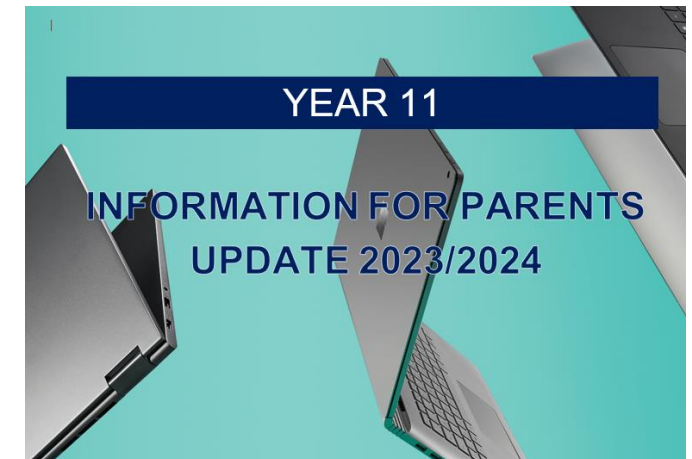
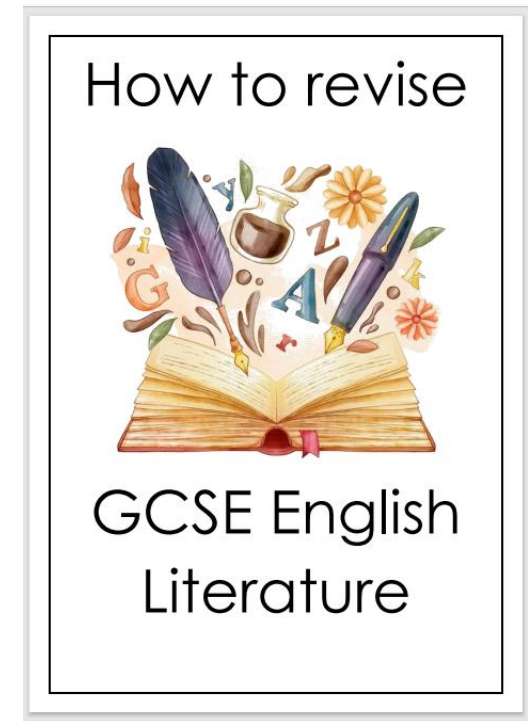
October half term, Christmas, February Half Term, Easter – 6 extra weeks

My English class – (9 lessons a fortnight) = approx. 100 lessons



What we offer:

- A coordinated series of published Revision Sessions throughout the year.
- More to follow!
- 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.
- Our Year 11 Subject Information Guide – given out today.
- More Revision Events for Parents – more guidance on how to revise later in the year.
- Year 11 – motivational assemblies, the results experience, Study Skills Focus Day.



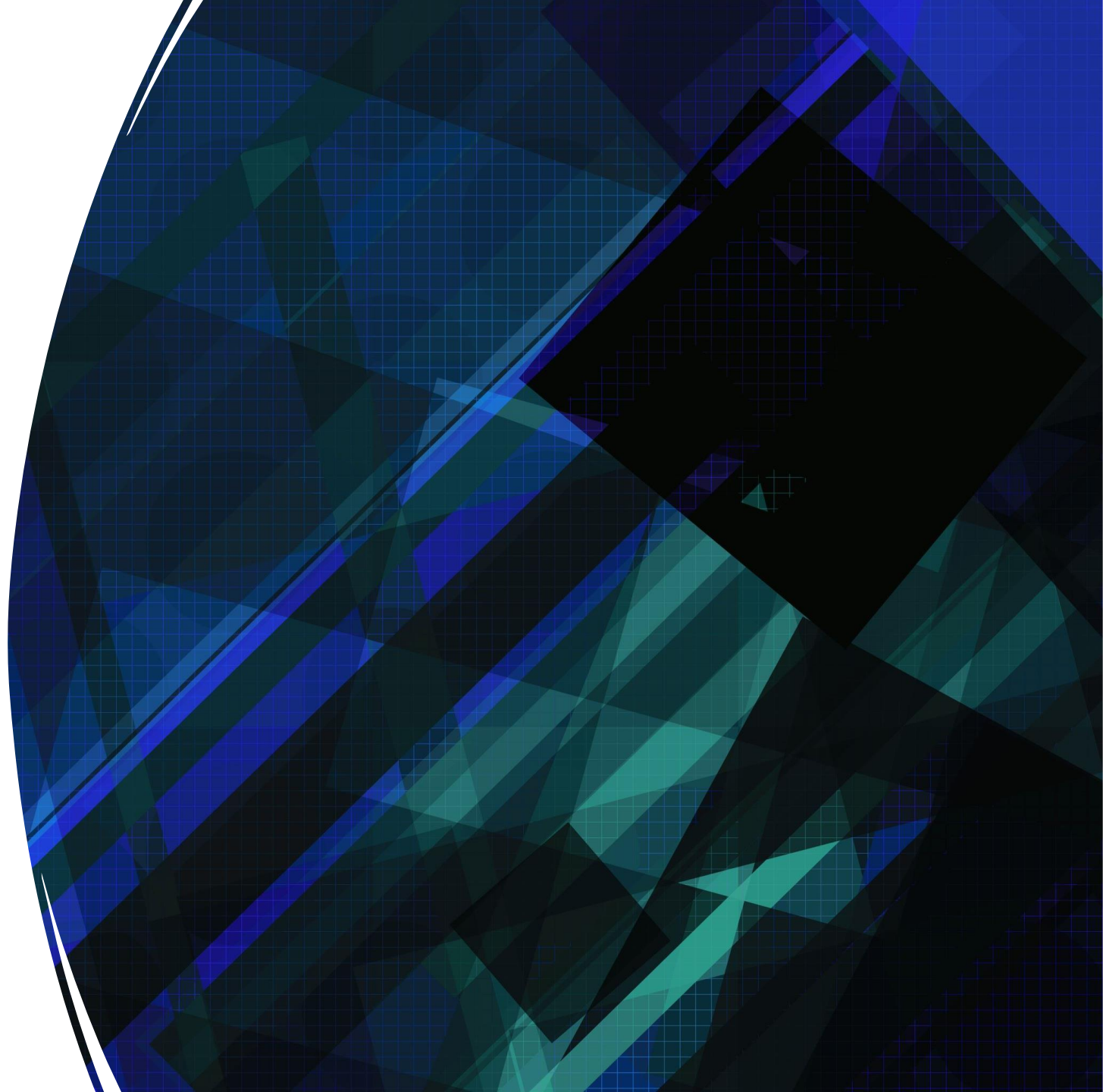


Subject Presentations Tonight

- Vocational Lead – Mr Zaidi
- English – Miss Jeffs
- Maths – Miss Marshall
- Science – Mrs Debbage
- Revision Strategies and Advice – Ms Lewis

Vocational Subjects

Mr Zaidi



VOCATIONAL COURSES

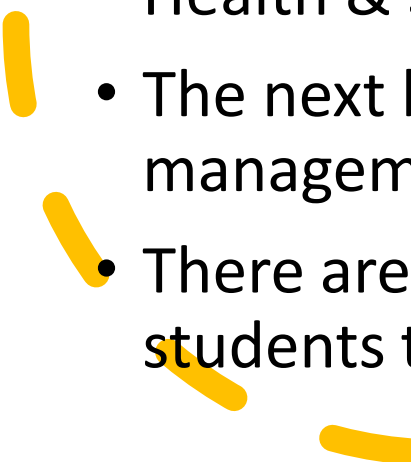
These are now highly regarded courses - on par with GCSEs
This means that expected standards of work are also higher

It is important for students and parents to be clear about the rules regarding:

- **Feedback** – on many courses, there is one opportunity mid-project for teachers to give very general feedback about how a project is going. There is a **teaching phase** and then an **exam phase** where students have to work independently
- **Use of AI** – basically, it's a NO
- **Referencing** – ALL work submitted must be the student's own work unless it is quoted and referenced, or re-written and sourced.

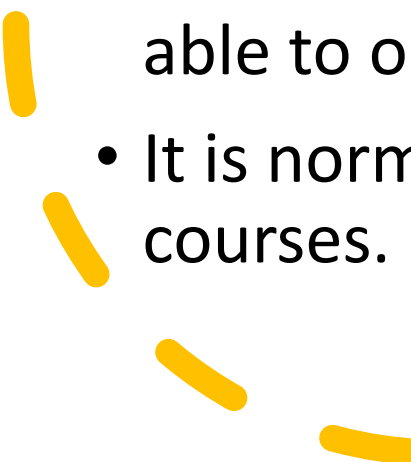


VOCATIONAL COURSES – PUSHING FOR SUCCESS

- Targets are challenging
 - About 20% of Year 11 students are resubmitting their work from Year 10 to push for a higher grade
 - Different subjects are doing this at different times – you need to check. Media is 13th October. Engineering has already happened. Travel and Health & Social Care are in the next couple of weeks
 - The next big **DEADLINE** is mid-December. Organisation and time management are essential
 - There are lunchtime sessions every day with vocational teachers to support students to catch up and meet deadlines
- 



MOVING FORWARDS

- The next 8 weeks are vital for success this Summer. About 20% of students are completing 2 modules before Christmas.
 - Post 16 Vocational courses are enjoying great success
 - They are highly regarded by employers and universities
 - Students do not need to have studied a subject at Key Stage 4 to be able to opt to take it as a post-16 course
 - It is normal for students to pick a mix of A Levels and vocational courses.
- 



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)



AQA: GCSE English Literature

'The specification takes a skills-based approach to the study of English literature that is consistent across the genres and gives students a grounding in a wide variety of literature that will stay with them for life'.

(AQA, 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 40% and Paper 2 is worth 60%

GCSE English Literature

Paper 1: 1hr 45 mins (64 marks)	Paper 2: 2 hrs 15 mins (96 marks)
Section A: Shakespeare <i>Macbeth or Romeo and Juliet</i> (34 marks) Section B: 19th century novel <i>A Christmas Carol or Jekyll and Hyde</i> (30 marks)	Section A: Modern drama <i>An Inspector Calls</i> (34 marks) Section B: poetry collection Power and conflict poetry (30 marks) Section C: two unseen poems (32 marks)

Section A: Shakespeare
Macbeth or Romeo and Juliet
(34 marks)

Section B: 19th century novel
A Christmas Carol or Jekyll and Hyde
(30 marks)

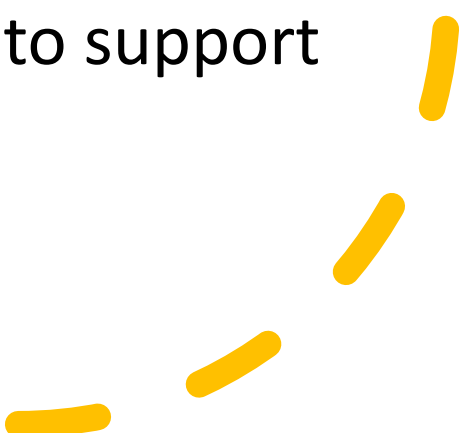
Section A: Modern drama
An Inspector Calls
(34 marks)

Section B: poetry collection
Power and conflict poetry
(30 marks)

Section C: two unseen poems
(32 marks)

A large orange circle on the left side of the slide, partially cut off by the edge.

Enhancing the curriculum

- Massolit
 - Digital Theatre +
 - English and Media Centre magazine
 - The Day (library)
 - Seneca
 - After-school revision sessions on Tuesdays
 - Parents are emailed with a 'How to support your Child' guide (Sway)
- 
- A series of four yellow curved dashes in the bottom right corner, forming a partial arc.

$y = g(x)$

Secant Lines

$$f'(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$$
$$f(x) = \lim_{h \rightarrow 0} \frac{x^2 + 2xh + h^2 - x^2}{h}$$
$$= \lim_{h \rightarrow 0} \frac{x^2 + 2xh + h^2 - x^2}{h}$$
$$= \lim_{h \rightarrow 0} \frac{2xh + h^2}{h}$$
$$= \lim_{h \rightarrow 0} h(2x + h)$$
$$= \lim_{h \rightarrow 0} h(2x + h)$$

$g(x+h) - g(x)$

$$= \lim_{h \rightarrow 0} h(2x + h)$$

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 16 May (Morning)

Paper 2 – Calculator

80 marks

90 mins

Monday 3 June (Morning)

Paper 3 – Calculator

80 marks

90 mins

Monday 10 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:

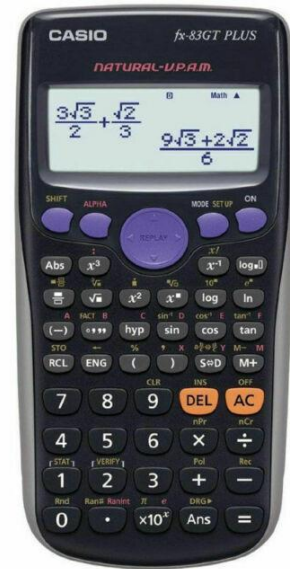
Constructions and Loci, Functions, Circle Geometry,
Simultaneous Equations, Vectors, Algebraic fractions, proof,
Probability, Similarity

Foundation Key Topics:

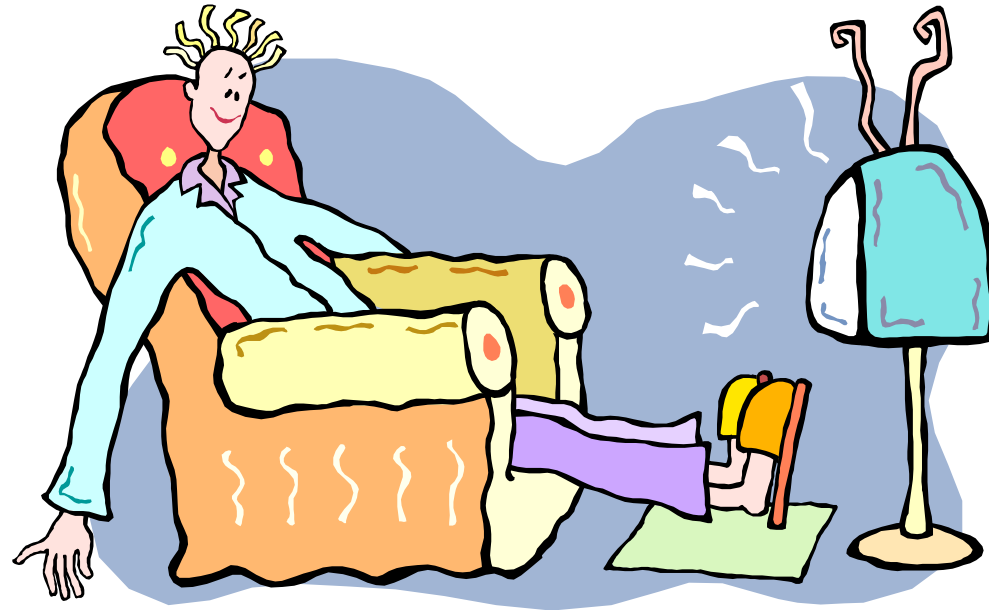
Proportion, Bearings, Quadratics, Similarity
Simultaneous Equations, Probability.

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 REVISE MATHS

- **PRACTICE, PRACTICE AND MORE PRACTICE...**
 - **Topic Specific Revision**
 - **Exam Practice**
- **Revision Sessions**
 - **Will run in the run up to the summer exams.**
 - **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)**
Mathsgenie.co.uk
- **Mathed Up (Exam Style Questions on Every Topic)**
mathedup.co.uk
- **Corbett Maths (A range of resources)**
Corbettmaths.com
- **Maths Watch VLE (Videos and practice questions)**
<https://vle.mathswatch.co.uk>

USEFUL WEBSITES

Maths Genie

[Home](#)

[GCSE Revision](#)

[A Level Revision](#)

[New Spec A Level](#)

[GCSE Exam Papers](#)

[A Level Exam Papers](#)

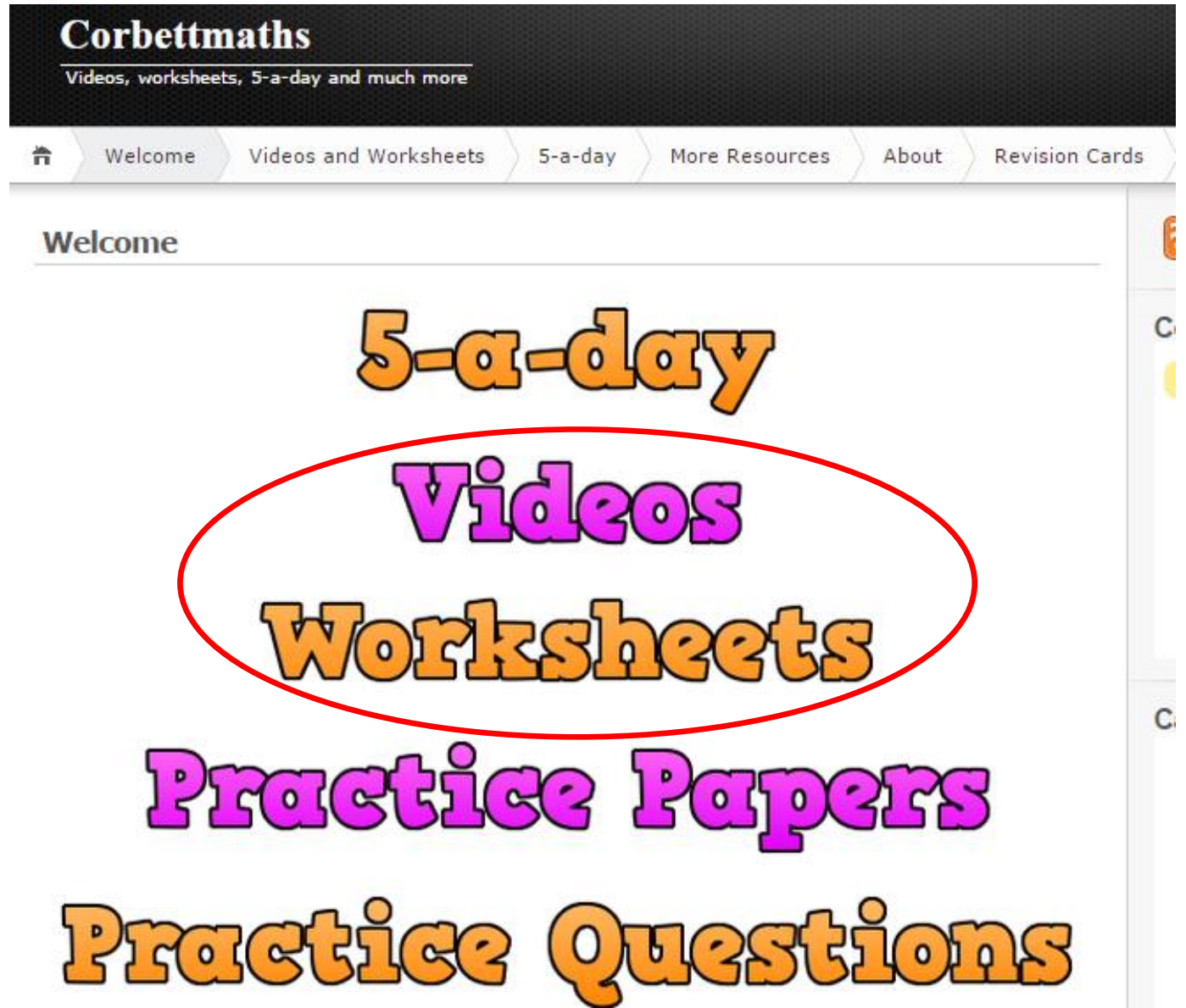
[Resources](#)

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



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](#)

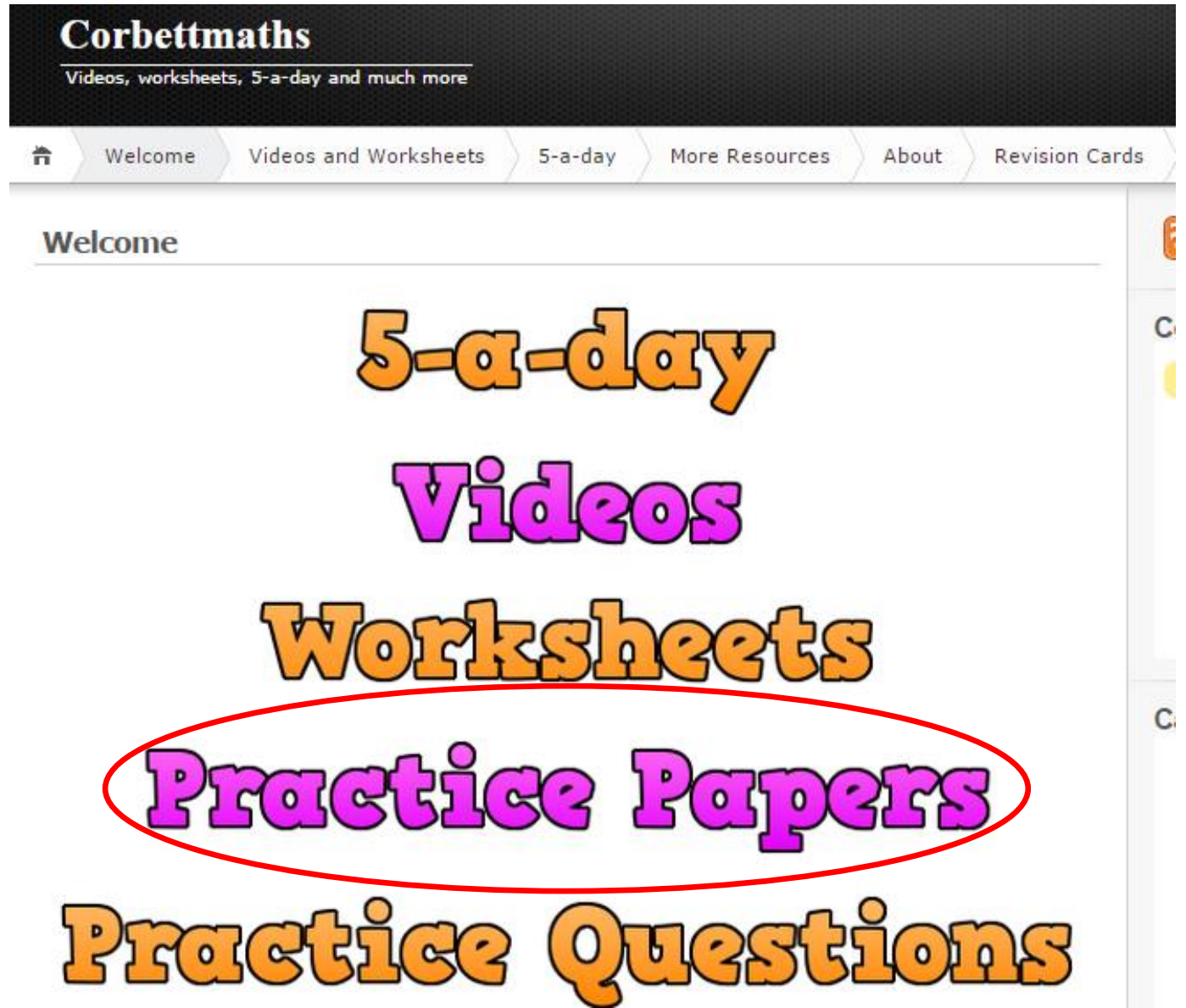
[Algebra: completing the square](#) [Video 10](#) [Practice Questions](#) [Textbook Exercise](#)

[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



USEFUL WEBSITES

Video



MathsWatch

Please choose a video in the menu opposite.

Find a Clip

Qualification GCSE ▼

Tier All ▼

Grade All ▼

Topic All ▼

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 Ta
7	Introduction to Algebraic Conventions

USEFUL WEBSITES

Clip 32 Rounding to Decimal places

One Minute Maths Interactive Questions Worksheet

Clip 32

ROUNDING TO DECIMAL PLACES

04:33

Find a Clip

Qualification GCSE ▼

Tier All ▼

Grade All ▼

Topic All ▼

Search 32

Choose Clip (2)

Clip	Title
32	Rounding to Decimal places
132	Introduction to Bounds

USEFUL WEBSITES

Clip 32 Rounding to Decimal places - Question 1 [← Return to Videos](#)

Standard Questions 1 2 3 Harder Questions 1 2 3

Question Progress

Round the following numbers to 1 decimal place.

a) 45.8642

b) 856.321

c) 2.93

d) 94.97


a) +

b) +

c) +

d) +

[Submit Answer](#)



USEFUL WEBSITES

Clip 32 Rounding to Decimal places - Question 4 [← Return to Videos](#)

Standard Questions 1 2 3 Harder Questions 1 2 3

Question Progress


Round the following numbers to 2 decimal places.

a) 89.8642

b) 473.3298

c) 0.64037

d) 5.999



a) +

b) +

c) +

d) +

[Submit Answer](#)

USEFUL WEBSITES

Clip 32 Rounding to Decimal places - Question 4

[← Return to Videos](#)

Standard Questions

1

2

3

Harder Questions

1

2

3

Question Progress

4 / 4 Marks



Round the following numbers to 2 decimal places.

a) 89.8642

b) 473.3298

c) 0.64037

d) 5.999

a) 89.86



b) 473.33



c) 0.64



d) 6.00



Submit Answer

THINGS TO LOOK OUT FOR

Letters about 5 a day question practice

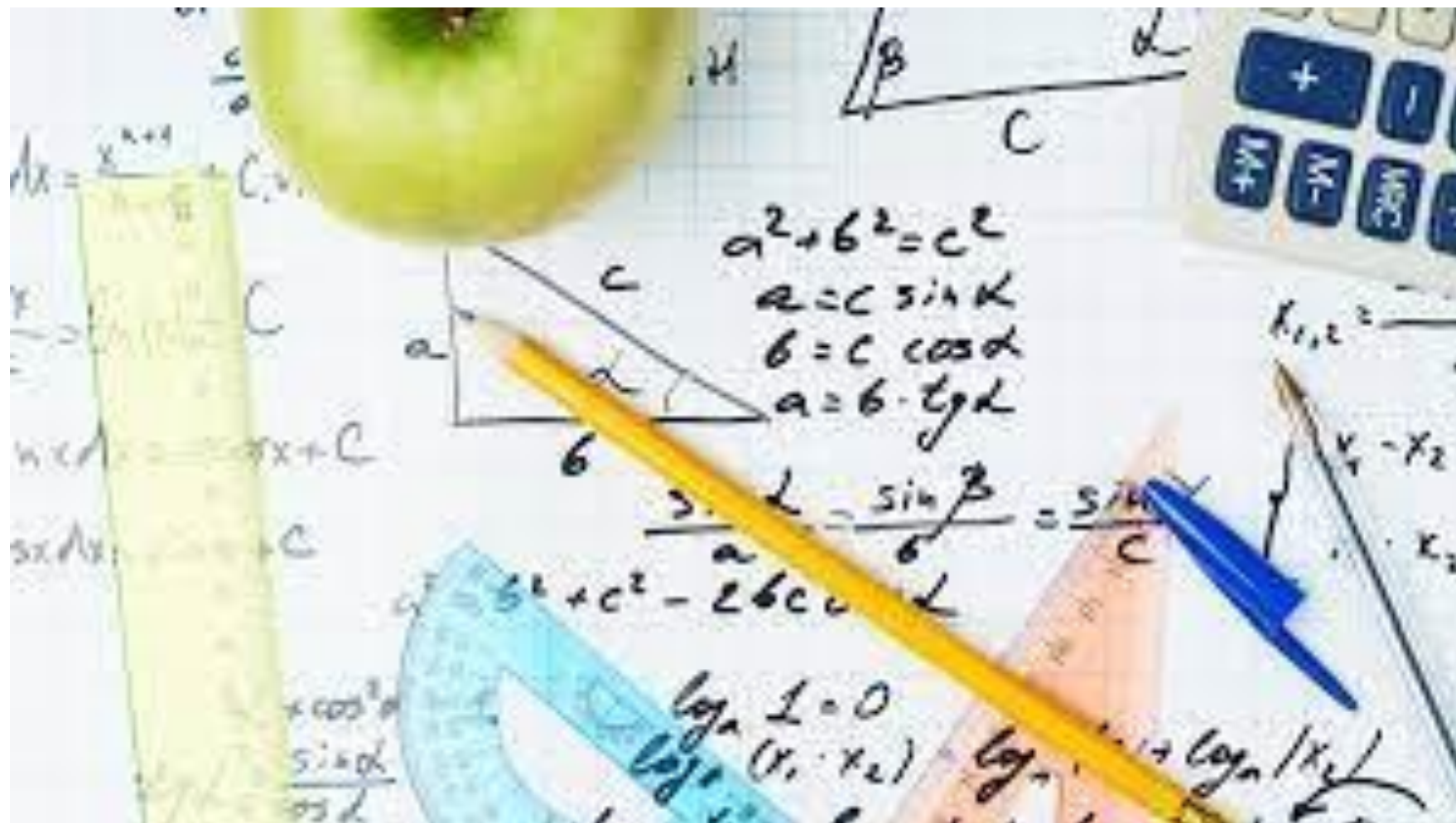
Letters about after school revision
(After February Half term)

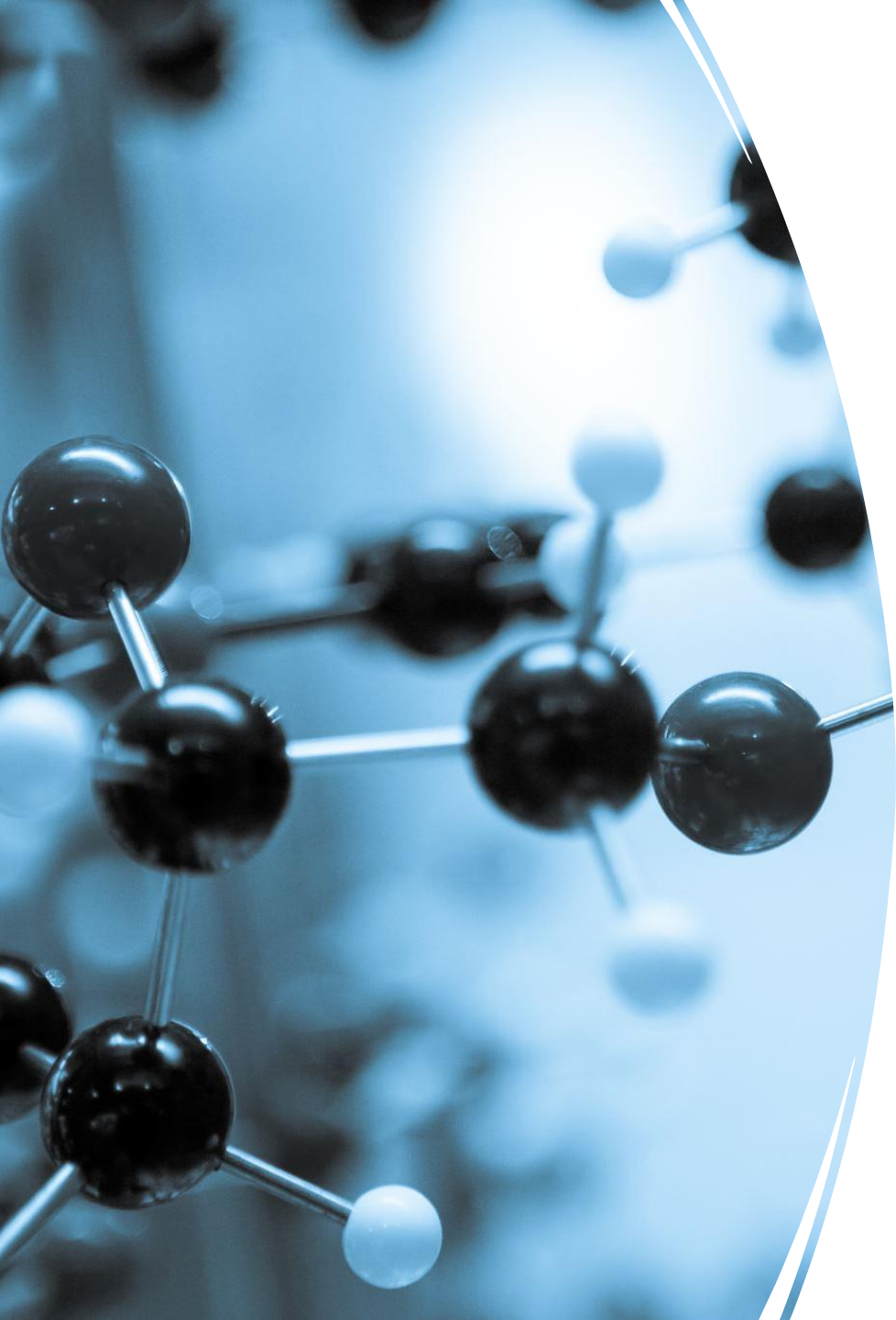
Letters about further revision opportunities later in the year

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

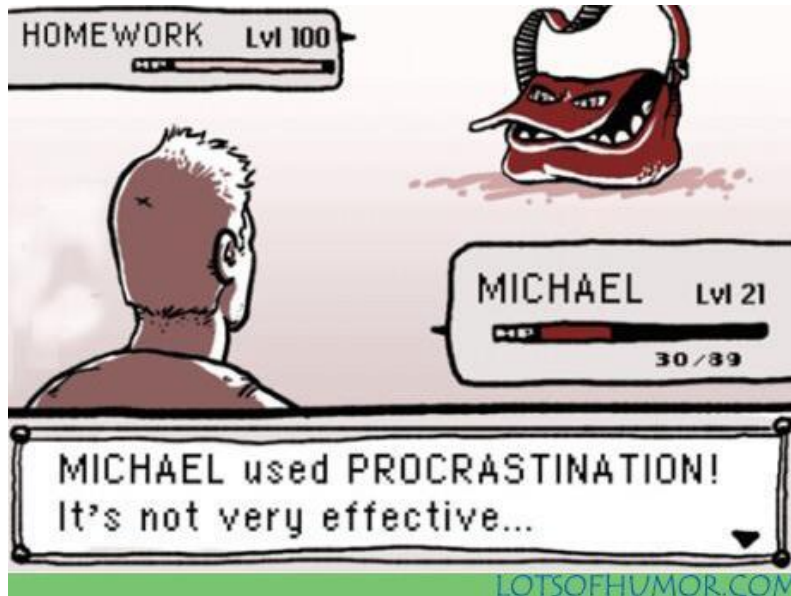




Science

Mrs Debbage

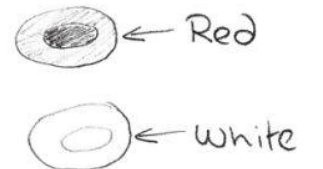
How to Prepare for Science



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's:

Biology – Friday 10th May PM

Chemistry – Friday 17th May AM

Physics – Wednesday 22nd May PM

Paper 2's:

Biology – Friday 7th June PM

Chemistry – Tuesday 11th June AM

Physics – Friday 14th June AM



Exam Content – Paper 1s (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 2s (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



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's 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: $[V = IR]$			
	Required practical 3: Use circuit diagrams to set up and check circuits to investigate the factors affecting the resistance of electrical circuits			
	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	Required practical 4: use circuit diagrams to construct appropriate circuits to investigate the I-V characteristics of a variety of circuit elements			
	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			
	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			
	<i>Required practical 4: use circuit diagrams to construct appropriate circuits to investigate the I-V characteristics of a variety of circuit elements</i>			
4.2.2 Series and parallel circuits	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			
	Solve problems for circuits which include resistors in series using the concept of equivalent resistance			
Domestic and safety	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)			

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

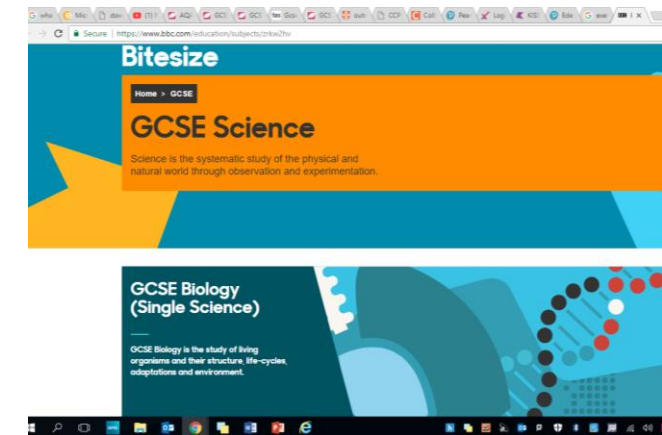
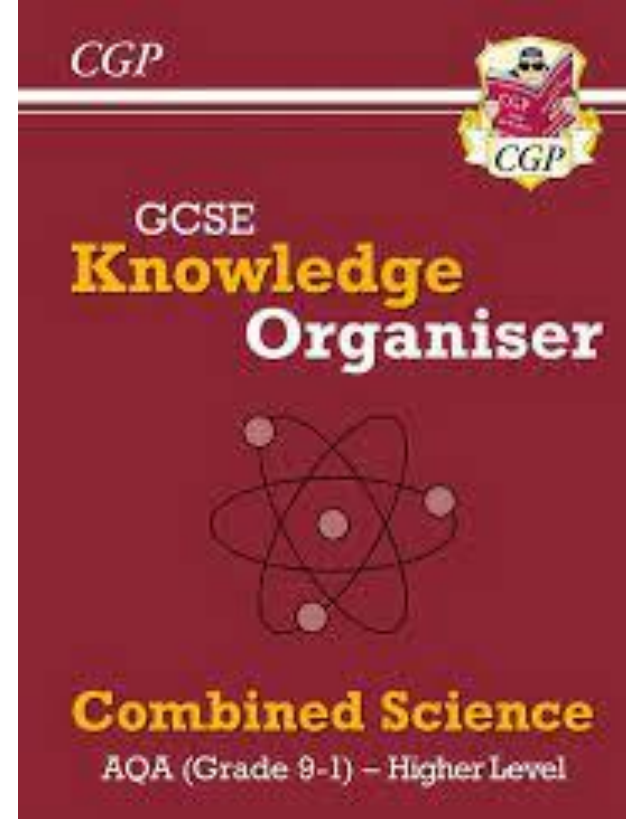
Contents			Contents		
	Revise	Practice	Revise	Practice	Review
Chemistry Paper 1			Chemistry Paper 2		
The pH Scale and Salts	p. 116	p. 112	The Earth's Atmosphere	p. 162	p. 175
The pH Scale			The Earth's Atmosphere		
Neutralisation of Acids			The Atmosphere Today		
Indicating Salts from Insoluble Bases			Increase of Oxygen Levels		
Strong and Weak Acids			Decrease of Carbon Dioxide Levels		
Electrolysis	p. 118	p. 110	Greenhouse Gases	p. 164	p. 175
Electrolysis			Greenhouse Gases		
Oxidation and Reduction			The Impact of Human Activities		
Reactions of Metals			Global Climate Change		
Electrodes of Aqueous Solutions			Carbon Footprints		
Chemistry Paper 3			Chemistry Paper 4		
Energy Changes			Using Resources		
Exothermic and Endothermic Reactions	p. 120	p. 114	Earth's Resources	p. 166	p. 177
Energy Transfer			Sustainable Development		
Energy Level Diagrams			Drinking Water		
Measuring Energy Changes	p. 122	p. 114	Waste Water Treatment		
Measuring Energy Changes			Alternative Methods of Extracting Metals		
Energy Change of Reactions			Using Resources	p. 168	p. 177
Energy Calculations			Life Cycle Assessment (LCA)		
Chemistry Paper 5			Reducing the Use of Resources		
The Rate and Extent of Chemical Change			Physics		
Rate of Reaction	p. 124	p. 115	Physics Paper 1		
Calculating the Rate of Reaction			Forces		
Collision Theory			Forces – An Introduction	p. 158	p. 178
Plotting Reaction Rate			Scalar and Vector Quantities		
Reversible Reactions	p. 126	p. 115	Contact and Non-Contact Forces		
Equilibrium			Gravity		
Reversible Reactions			Resultant Forces		
Closed Systems			Vector Diagrams		
Changing Reaction Conditions			Forces in Action	p. 160	p. 178
Chemistry Paper 6			Work Done and Energy Transfer		
Organic Chemistry	p. 136	p. 134	Forces and Motion	p. 162	p. 179
Alkanes			Distance and Displacement		
Crude Oil and Hydrocarbons			Speed		
Fractional Distillation			Newton's First Law		
Alkanes			Distance-Time Graphs		
Burning Fuels			Forces and Acceleration	p. 164	p. 179
Cracking Hydrocarbons	p. 138	p. 134	Acceleration		
Cracking Hydrocarbons			Velocity-Time Graphs		
Branched Alkanes			Newton's Second Law		
Chemistry Paper 7					
Chemical Analysis	p. 140	p. 135			
Chemical Analysis					
Qualitative Analysis					
Quantitative Analysis					
Chromatography					
Gas Tests					

Simplify your notes

With reference to the particle model explain why solids are usually denser than liquids.	Draw a particle model of a solid, liquid and a gas Label the changes of state 	What is meant by the term 'internal energy'?
Explain why changes of state are referred to as physical changes		How does heating change the energy stored within a system?
When a system is heated what does the temperature change depend on? (3 things)	What is the specific latent heat of fusion?	3.1 – Particle model of matter Describe the movement of molecules in a gas.
What is the specific heat capacity of a material?		What is the difference between heat and temperature? Complete the units • SHC = • SLH = • Energy = • Mass = • Volume = • Pressure = • Thermal energy = • Temperature =
What is 'latent heat'?	What is the specific latent heat of vaporisation?	What happens to the pressure of a gas if it is heated and the volume remains the same? EQUATIONS YOU MUST KNOW (and units) Density () = Equations to use: Change in thermal energy = mass x SHC x temp change Thermal energy for change of state = mass x SLH For gases: pressure x volume = constant

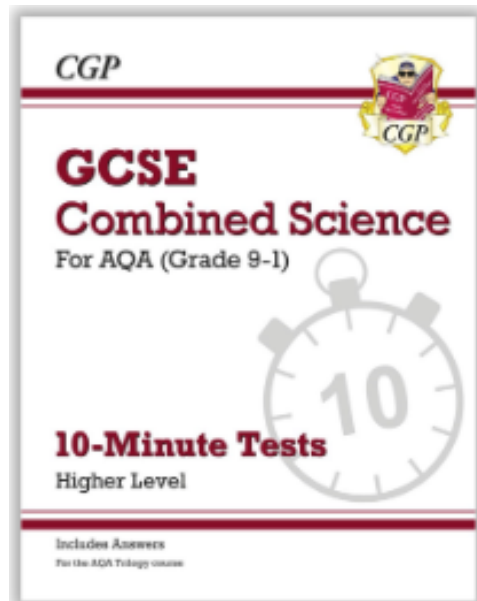
Filling in the gaps

- 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



**KEEP
CALM
AND ANSWER
THE
QUESTION**

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 apart</u>	1
(b)	<u>amount</u> of energy required to change the state of a substance from liquid to gas (<u>vanour</u>)	1
	<u>unit mass</u> / 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			
	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: $[V = IR]$			
	Required practical 3: Use circuit diagrams to set up and check circuits to investigate the factors affecting the resistance of electrical circuits			
	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			
	Required practical 4: use circuit diagrams to construct appropriate circuits to investigate the I-V characteristics of a variety of circuit elements			
4.2.2 Series and parallel circuits	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			
	Solve problems for circuits which include resistors in series using the concept of equivalent resistance			

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.

Totally Physics Educational Products ©

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 = $\frac{\text{Force Normal on the Surface}}{\text{Area of the Surface}}$	$p = \frac{F}{A}$	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

See our homework and revision app at www.totallyphysics.co.uk

Other Key Areas to Revise

REQUIRED PRACTICAL

Chromatography

Method

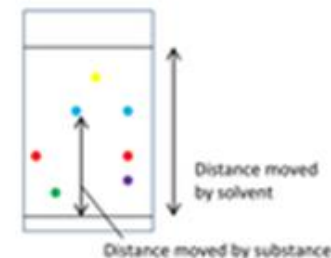
1. Draw a horizontal pencil line 2cm up from the bottom of some chromatography paper.
2. Mark five spots at equal distances along the line with a pencil.
3. Using glass capillary tubing put a small spot of each of the known colours onto four of the pencil dots. Put the unknown mixture onto the 5th spot.
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.

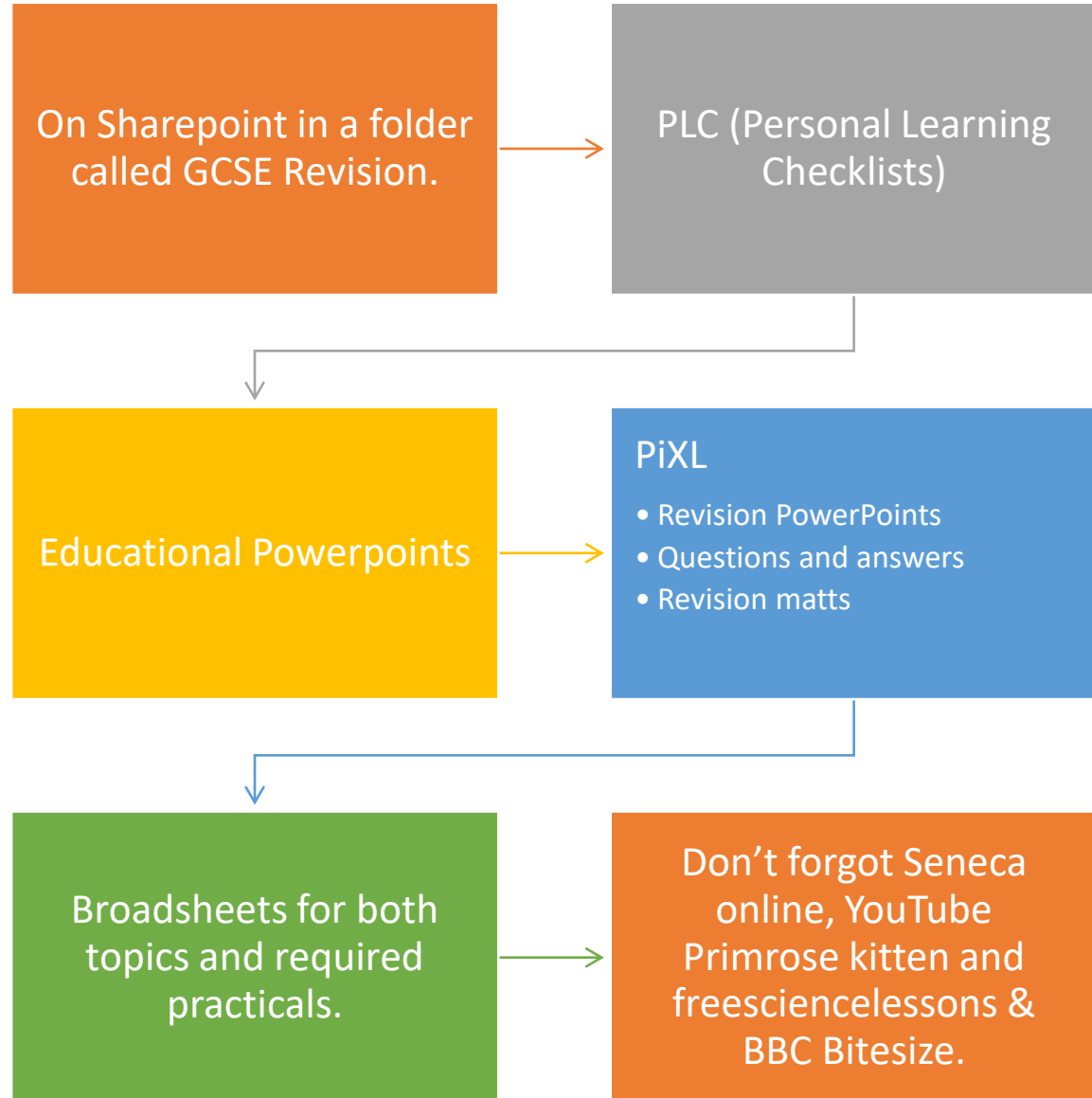
If this happens the ink spots will dissolve into the water.



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.
- Positive marks sent home for all those who attend.
- After the 2nd set of mocks they will be every Monday and Friday after school.

Learn



Revise



Test



How to Prepare for Examinations
Ms Lewis

Your lessons are vital:

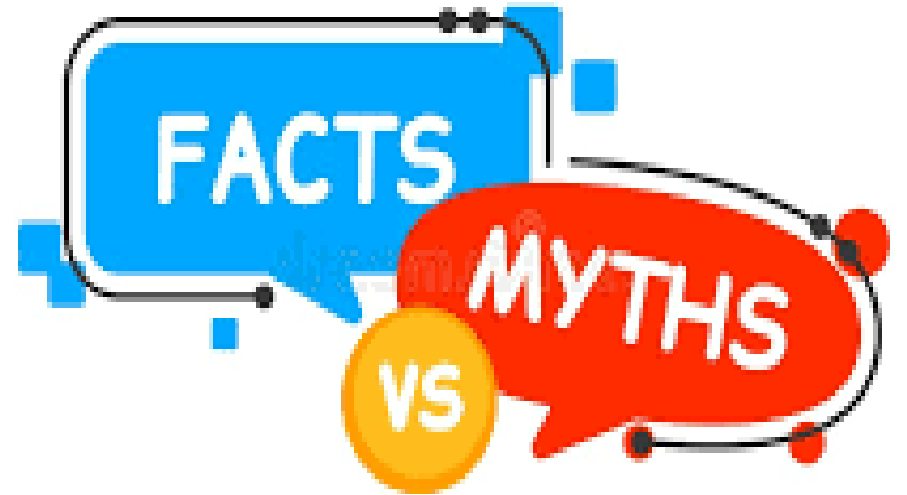
Learn



- 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.

Revision Myth Busters!

- *'I don't need to revise – I know it already.'*
- *'I have a photographic memory – I'll be fine.'*
- *'It is an unseen extract/text – I can't revise for it.'*
- *'I just need to do some past papers.'*
- *'I MUST memorise loads of quotes/facts for this.'*
- *'I'll just do some the night before or get up early on the day.'*



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 (Half Term onwards)

Revise



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

Stage Three – Confidence Building (After Half Term)

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.
- Say it out loud – record your self
- Revise with others – tell someone about your topic, prompt each other
- Mnemonics – BECAUSE!
- 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
- Command Words – describe, outline, discuss
- Practise Academic Style Writing
- Repetition – get good at what you need to do



Making a Revision Timetable

- Map your subjects – break down into topics
 - Organise your books/notes into subjects. Collect all the stationery you might need
 - Create a timetable:
 - Aim to revise a little every day
 - Build in some unallocated study time because you may get a bit behind
 - 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	17:00 – 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

Coping with stress



- You are not alone
- Some stress can be good for you – motivation and resilience
- Look for signs of stress that can be negative – loss of appetite, anxiety, difficulty sleeping, emotional, difficulty concentrating
- Make time for important things – social time, exercise, fresh air, hobbies and interests, eating and sleeping
- Making it worse – last minute late night revision, not taking breaks, unrealistic targets and putting pressure on yourself



Sleep and Lifestyle

Healthy Diet – slow releasing energy food, Protein, fruit and veg, lots of water.

Don't skip meals.

Relax before bed – avoid caffeine, screen time, working too late, tidy away your revision and work.

Exercise regularly

Try one of those Yoga/Meditation Apps – Calm, Headspace.

Take Away Tips

- You are already doing the work – but start planning ahead.
- Know your exam requirements.
- Set aside time for fun stuff.
- Use the resources we give you and your support network.
- Work on yourself – be calm, be organised, be informed, be confident.

Learn



Revise



Test



Thank you

Good Luck



Making a Study Zone

Space to work

- ✓ a comfortable chair
- ✓ a clear desk
- ✓ good light
- ✓ comfortable temperature
- ✓ pens
- ✓ paper



Ask yourself but also ask for help:

- If the place where you do most of your school work is not easy to work in, what can you do to make it better?
- What distracts you when you are trying to settle down to revision?
- Can you do something to remove that distraction (eg place your phone in a different room)?
- If you find it difficult to study at home, arrange to stay longer in school – book in at the Library.

The Night Before –



1. Positive Imagery –Thinking positively
2. Remember Your Previous Best
3. Remind Yourself Of Your Preparation – confidence is key. You know this
4. Focus on Yourself and Don't Compare to Others
5. How You Have Overcome Setbacks
6. See the Exam as a Challenge, not a Threat
7. Sort out your equipment (and your water)
8. Get a Good Night's Sleep

The morning of your exam –

1. Wake up at a sensible time.
2. Eat a good breakfast – slow releasing energy.
Porridge, Water, Fruit.
3. Arrive the next day in plenty of time
4. Don't attempt anything new – just remind yourself of the paper, type of questions and timings.
5. Stay away from Panicking People.





During an exam -

- Organise your desk space – water, check the clock, sort equipment.
- Deep breaths, be Zen!
- Don't look around, get in your own zone.
- Listen to the instructions
- If it helps – write down/plan your timings at the start so you can keep track.
- Read everything carefully.



After an exam -

- Let it go. (In time you will get feedback and can act later.)
- Ignore those Panicking People
- Relax (Or Rest, Revise, Repeat)
- Tick them off your list
- Celebrate when done!