# Welcome to Y11 Preparing for Success Evening



# Aims:

- Provide guidance on how to support your child in the lead up to exams.
- Give advice on key revision techniques students can use to support with revision.
- Provide materials to support revision.



# **Exam Dates**

GCSE examinations begin w/c 8th May, however, there are practical exams and some BTEC exams which take place earlier.

# **Exam Expectations**

To ensure that we adhere to strict exam regulations the following must be observed by all students taking assessments:

- Watches must be removed and are not permitted in the exam hall unless placed on the desk in front of them.
- Under no circumstances are phones or smart watches allowed in the exam hall.
- Students must take their equipment into the exam in a clear pencil case.
- Students may take a bottle of water into the exam, but the bottle must be clear with no labels on it.

If students do not adhere to these regulations, this can put both their exam results and other students exam results in jeopardy with all assessments linked to that exam board. The school has a duty to inform the exam board if any of these are not adhered to.

Students are required to provide their own equipment for the exam: 2 x black biros, sharp pencil, sharpener, eraser, ruler, scientific calculator, protractor, compass.

# Preparing for Success

#### **Additional Support for students**

- Weekend and holiday revision sessions
- Breakfast revision sessions
- Practice with formula sheets (Science & maths)
- Independent revision resources
- > Targeted tutor time support
- Additional learning and study club
- Workshops on effective revision techniques.

# How can you Support?

- Help them create a revision timetable and support them to stick to it.
- Little and often, encourage breaks.
- ▶ Know when their revision sessions are and support attendance.
- Support students to look after their mental health through:
  - Routine
  - Regular exercise
  - Healthy diet
  - Appropriate amount of sleep
  - Ask them about what is going well and what they are worried/concerned about
  - Reassurance doing their best so that they can be proud of their effort

How can students prepare for success in their core subjects?

# Practising Revising for the Mathematics Exams





Paper	Date	% of GCSE grade
Paper 1 Non-Calculator Foundation/Higher	Friday 19 <sup>th</sup> May (AM)	33.33%
Paper 2 Calculator Foundation/Higher	Wednesday 7 <sup>th</sup> June(AM)	33.33%
Paper 3 Calculator Foundation/Higher	Wednesday 14th June (AM)	33.33%

Revision sessions available prior to each examination.

# The Countdown

#### **GCSE Mathematics**

Paper 1

Friday 19th May

108 days, 20 hours, 44 minutes and 51 seconds.

#### **GCSE Mathematics**

Paper 2

Wednesday 7th June

127 days, 20 hours, 44 minutes and 51 seconds.

#### **GCSE Mathematics**

Paper 3

Wednesday 14th June

134 days, 20 hours, 44 minutes and 51 seconds.

# **Exam Content**

Foundation

Higher

# **Crossover Content**

Foundation
U 1 2 3 4 5

Crossover content Approximately 30 marks

# Formulae Sheet

#### **Foundation Tier Formulae Sheet**

#### Perimeter, area and volume

Where a and b are the lengths of the parallel sides and b is their perpendicular separation:

Area of a trapezium = 
$$\frac{1}{2} (a + b) h$$

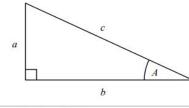
Volume of a prism = area of cross section × length

Where r is the radius and d is the diameter:

Circumference of a circle =  $2\pi r = \pi d$ 

Area of a circle =  $\pi r^2$ 

#### Pythagoras' Theorem and Trigonometry



In any right-angled triangle where a, b and c are the length of the sides and c is the hypotenuse:

$$a^2 + b^2 = c^2$$

In any right-angled triangle ABC where a, b and c are the length of the sides and c is the hypotenuse:

$$\sin A = \frac{a}{c} \quad \cos A = \frac{b}{c} \quad \tan A = \frac{a}{b}$$

#### **Compound Interest**

Where P is the principal amount, r is the interest rate over a given period and n is number of times that the interest is compounded:

Total accrued = 
$$P \left( 1 + \frac{r}{100} \right)^n$$

#### Probability

Where P(A) is the probability of outcome A and P(B) is the probability of outcome B:

$$P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$$

#### **END OF EXAM AID**

#### **Higher Tier Formulae Sheet**

#### Perimeter, area and volume

Where a and b are the lengths of the parallel sides and b is their perpendicular separation:

Area of a trapezium = 
$$\frac{1}{2} (a + b) h$$

Volume of a prism = area of cross section × length

Where r is the radius and d is the diameter:

Circumference of a circle =  $2\pi r = \pi d$ 

Area of a circle =  $\pi r^2$ 

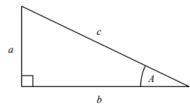
#### Quadratic formula

The solution of  $ax^2 + bx + c = 0$ 

where  $a \neq 0$ 

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

#### Pythagoras' Theorem and Trigonometry



In any right-angled triangle where a, b and c are the length of the sides and c is the hypotenuse:

$$a^2 + b^2 = c^2$$

In any right-angled triangle ABC where a, b and c are the length of the sides and c is the hypotenuse:

$$\sin A = \frac{a}{c} \quad \cos A = \frac{b}{c} \quad \tan A = \frac{a}{b}$$

In any triangle ABC where a, b and c are the length of the sides:

sine rule: 
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

cosine rule: 
$$a^2 = b^2 + c^2 - 2bc \cos A$$

Area of triangle = 
$$\frac{1}{2} a b \sin C$$

#### Compound Interest

Where P is the principal amount, r is the interest rate over a given period and n is number of times that the interest is compounded:

Total accrued = 
$$P\left(1 + \frac{r}{100}\right)^r$$

#### Probability

Where P(A) is the probability of outcome A and P(B) is the probability of outcome B:

$$P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$$

$$P(A \text{ and } B) = P(A \text{ given } B) P(B)$$

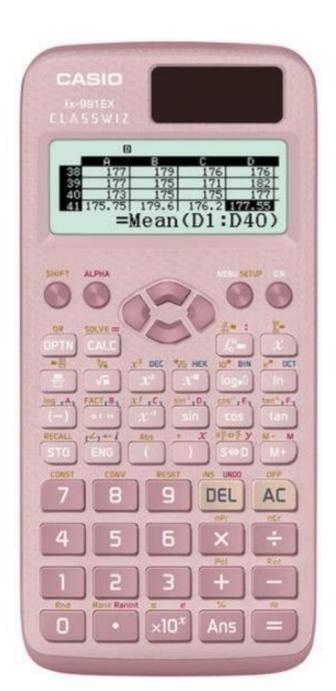
#### **END OF EXAM AID**

# Language of the papers

Coı	nmand words	What you need to know				
1	Calculate	A calculator and some working will be needed.				
2	Change  Usually convert from one unit to another; either using known metric unit conversions or the use of a conversion graph.					
		Fill in missing values.				
3	Complete	For example, on a probability tree diagram or a table of values.				
4 Describe		Write a sentence that gives the features of the situation.				
		For example, describing a transformation or trend in a graph.				
		Produce an accurate drawing (unless a sketch is being drawn).				
5	Draw	For example, draw a graph, draw an accurate elevation of a pyramid.				

Know how to use the calculator efficiently.

Casio Classwiz Fx991EX



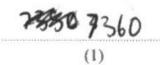
# Types of questions AO1

#### AO1 Use and apply standard techniques

#### Strands

#### **Elements**

20 (a) Write 7357 correct to 3 significant figures.



1/1

(b) Work out 
$$\frac{\sqrt{17+4^2}}{7.3^2}$$

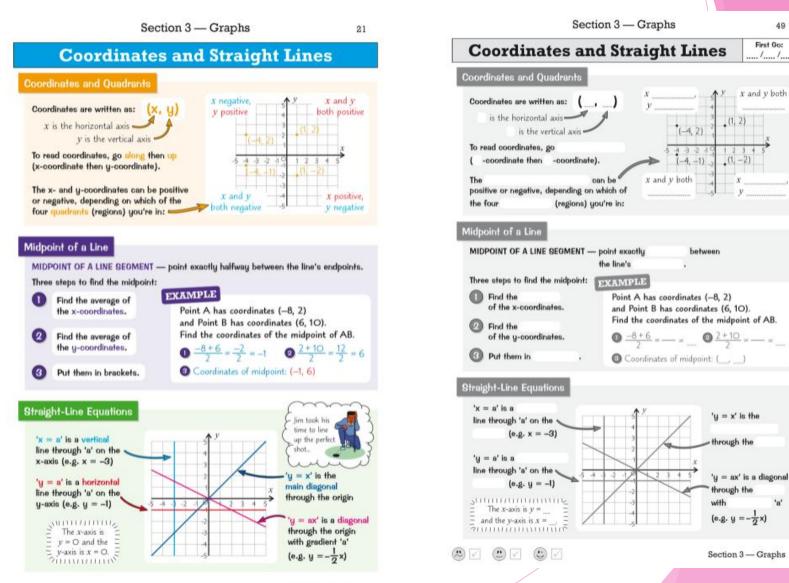
Write down all the figures on your calculator display.

$$17+4^2=33$$
  $\sqrt{33}=5.744562647$ 

- ✓ Create some Flashcards.
- ✓ Test yourself
- √ Knowledge Organiser practice
- ✓ Generate your own practice questions.

0.1077981356

# AO2 Knowledge Organisers



49

# Types of questions AO2

#### AO2 Reason, interpret and communicate mathematically

21 Last year Jo paid £245 for her car insurance.

This year she has to pay £883 for her car insurance.

Work out the percentage increase in the cost of her-car insurance.

Percentage = 
$$\frac{\text{charge}}{\text{original}} \times 100$$

$$\frac{(883 - 245)}{245} \times 100 = 260.408$$

- ✓ Practice the keywords and explain the processes.
- √ Fluency papers ( since Year 9!)

260

3/3

# Practice recalling and applying formula that doesn't appear on the paper

Speed (s) = 
$$\frac{\text{distance (d)}}{\text{time (t)}}$$

Density (d) = 
$$\frac{\text{mass (m)}}{\text{volume (V)}}$$

	0°	30°
sin	0	$\frac{1}{2}$
cos	1	$\frac{\sqrt{3}}{2}$
tan	0	$\frac{1}{\sqrt{3}}$

$45^{\circ}$	60°	90°
$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
1	$\sqrt{3}$	_

Sum of interior angles for a regular polygon  $= (\text{number of sides} - 2) \times 180$ 

$$\text{Interior angle of a regular polygon} = \frac{\left(\text{number of sides} - 2\right) \times 180}{\text{number of sides}}$$

Exterior angle of a regular polygon = 
$$\frac{360}{\text{number of sides}}$$

# Types of questions - A

\*7 Here is part of a field.

#### AO3 Solve problems within mathen

#### Strands

1 – Translate problems in mathematical or non-mathematical contexts into a process or a series of mathematical processes

- 2 Make and use connections between different parts of mathematics
- 3 Interpret results in the context of the given problem
- 4 Evaluate methods used and results obtained
- 5 Evaluate solutions to identify how they may have been affected by assumptions made

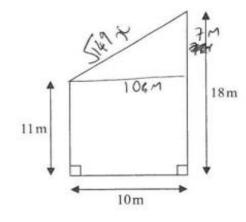


Diagram NOT accurately drawn

This part of the field is in the shape of a trapezium.

A farmer wants to put a fence all the way around the edge of this part of the field.

The farmer has 50m of fence.

perineter

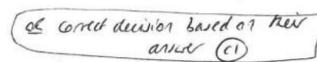
Does he have enough fence? You must show all your working.

$$\chi^{2} = 10^{2} + 7^{2}$$
 ①
$$\chi^{2} = 149$$

$$\chi = 5149$$
 ① (0e)

perimeter = 11 + 10 + 18 + "5149" ①
$$= 51.2065556...$$
 ①

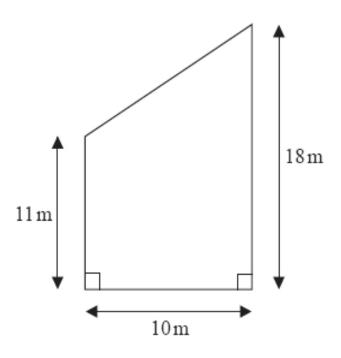
He does not have enough feace 51.2. ~>50m (1)

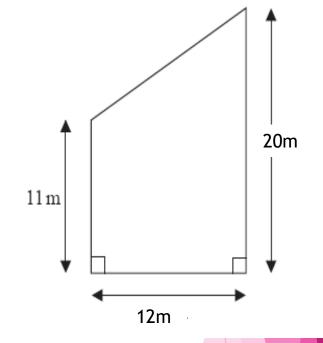


### **AO3 Practice Minimally different**

\* Here is part of a field.

\* Here is part of a field.





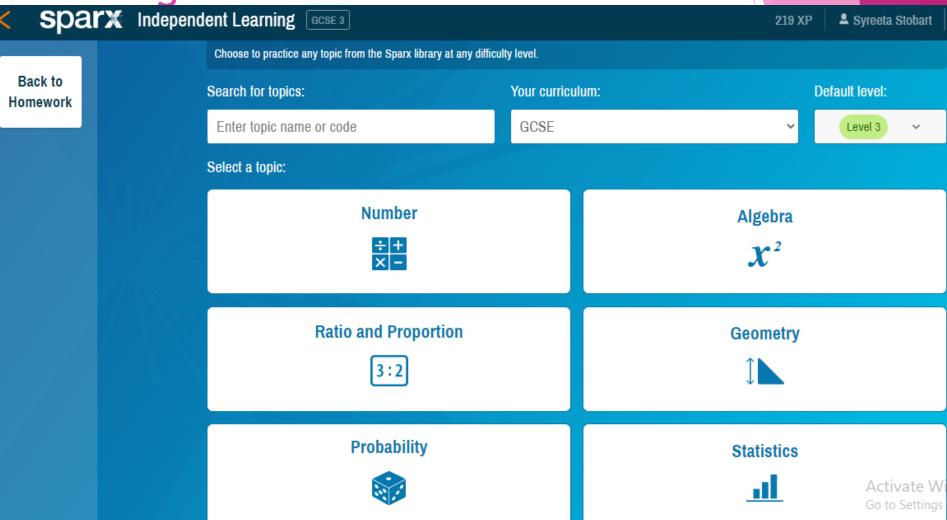
Past Paper practice- 4/5 mark questions

Change the numbers and practice the processes.

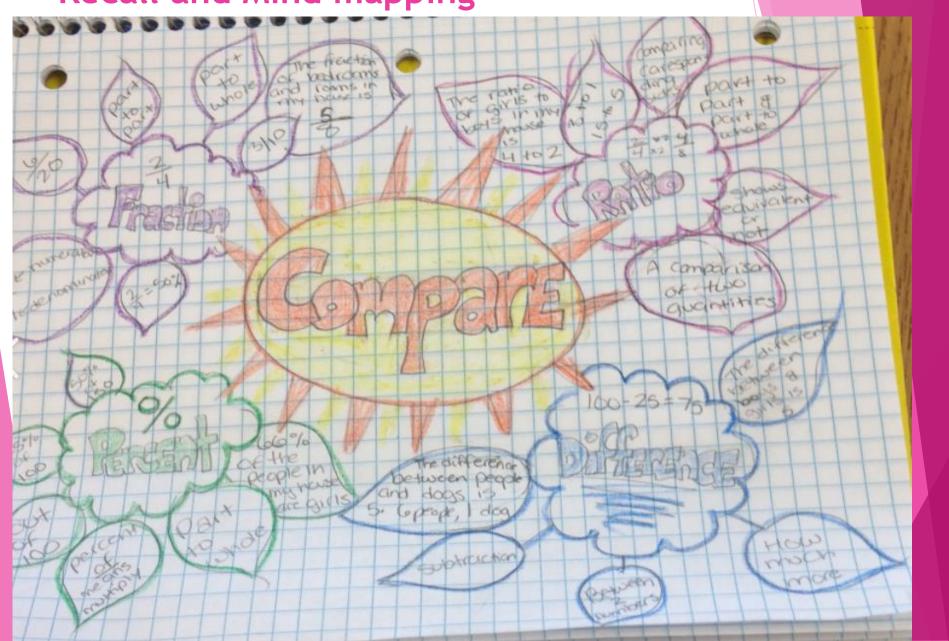
# Targeted revision topics

Paper	November 2020	Paper 3H		Н		sparx
Name T	N			Н		opui x
Teacher	Enter Teacher N	ame		Н		
	Questions	Topic	9	COI	re	Sparx Code
	1a	Simplifying expressions using index laws	1	7	1	U662
	1ь	Simplifying expressions using index laws	2	i	2	U662
	1c	Solve single inequalities	2	Ì	2	U759
	2	Calculating with speed	3	Ì	3	U151
	3	Finding error intervals	2	1	2	U657
	4a	Area and perimeter problems, Solving direct proportion word problems	4	1	4	U934,U721
	4Ь	Area and perimeter problems, Solving direct proportion word problems	1	1	1	U934,U721
	5a	Tree diagrams for independent events	2	1	2	U558
	5ь	Tree diagrams for independent events	2	1	2	U558
	6a	Solving simultaneous equations graphically	1	1	1	U836
	6Ь	Solving quadratic equations graphically	2	1	2	U601
	7	Calculating the mean	3	1	3	U291
	8	pabilities of mutually exclusive events, Expected results from repeated experim	1	1	3	U683,U166
	9	Finding unknown sides in right-angled triangles, Finding the volume of prisms	1	1	5	U283,U174
	10a	Multiplying and dividing numbers in standard form	2	1	2	U264
	10Ь	Multiplying and dividing numbers in standard form	0	1	2	U264
	11a	Combining transformations	1	1	3	U766
	11Ь	Combining transformations		1	1	U766
	12a	Adding and subtracting algebraic fractions	1	1	3	U685
	12Ь	Expanding triple brackets	2	1	3	U606
	13a	Drawing graphs of inequalities	0	1	4	U747
	13Ь	Drawing graphs of inequalities	1	1	1	U747
	14	Circle theorems	0	1	4	U251,U130,U808
	15	Converting recurring decimals to fractions	0	1	2	U689
	16a	Estimating areas under non-linear graphs	2	1	2	U882
	16Ь	Estimating areas under non-linear graphs	1	1	1	U882
	16c	Estimating gradients of non-linear graphs	0	1	1	U800
	17	Calculating averages from histograms	0	1	4	U267
	18	Using Pythagoras' theorem in 3D, Finding error intervals for calculations	1	1	4	U541,U587
	19	The area rule, Finding the perimeter and area of similar shapes	0	1	4	U592,U630
	20	nding the LCM using prime factor decomposition, Index rules with positive indic	0	1	1	U250,U235
	21a	Calculating with ratios and algebra	1	1	2	U676
	21Ь	Factorising quadratic expressions, Calculating with ratios and algebra	1	I	3	U858,U676

# Sparx Homework and Independent Learning



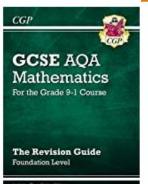
Recall and Mind mapping



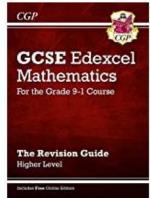
#### Ideas - Revision Session ideas 20-30 mins 4-5 times a week

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Use your QLA and watch 3-5 videos+ Quiz on Hegarty		Create a set of f formula for area volume and com	, perimeter and	Complete pages from the KO Work book		RAG rate the Advance Information
	Complete pages from the KO Work book	Maths Homework topic past paper questions + self assess	Complete a quiz from your revision guide	Complete the a maths paper- with a YouTube video		
	Use your QLA and watch 3-5 videos+ Quiz on Hegarty	List all the different ways you can solve an equation	Maths Homework topic past paper questions + self assess	Visit GCSE Bitesize to work through a topic		Create a set of flash cards for expressions, formulae and equations
Maths Homework past paper questions on trigonometry + self assess	Create a mind map on graphs	Use the mark scheme to assess some questions.		Complete past paper questions related to graphs		
	Maths Homework past paper question + self assess	Watch 4 videos on Corbett maths	Recreate the formula sheet from scratch		RAG rate the Advance Information	Complete 5 questions on an exam paper
Maths Homework past paper question + self assess		Maths Homework past paper question + self assess	Quiz yourself on the area, perimeter and volume and compound measures			

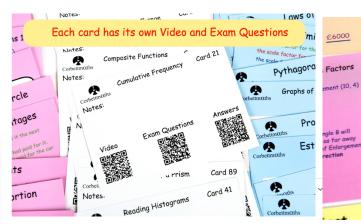
## Resources



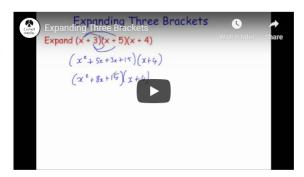
**GCSE Maths Edexcel** Revision Guide: Higher for the Grade 9-1 Course (with Online Edition) (CGP GCSE Maths 9-1 Revision)



GCSE Maths Edexcel Revision Guide: Foundation for the Grade 9-1 Course (with Online Edition) (CGP GCSE Maths 9-1 Revision)



**Expanding Three Brackets Video** 



Available for Higher or Foundation Tier

Speed, Distance and Time

A car travels 165 miles in 3 hours.

Calculate the average speed, in

Recurring Decimals to Fractions

miles per hour, of the car.

0

 $27^{\frac{1}{3}} = 9$ 



**EDEXCEL** resources Higher and Foundation revision guides and practice workbooks

WH Smiths Amazon.com **Waterstones** 

Revision for this topic

www.corbettmaths.com/contents

Video 15



# Other useful resources

- Sparx Videos on the topic
- Corbett Maths- Practice the skills with worksheets, Topic tests, predicted papers
- Maths Genie Practice the skills exam board past paper questions
- Onmaths- Predicted papers
- MME Making Maths Easy, Topic tests and worksheets
- ▶ BBC Bitesize Reviewing information and practice tests
- Youtube Past paper/ Predicted papers/ Advance information walk throughs

# Revising for English Language and English Literature

# **English Revision**

Date	Focus
Wednesday 17 <sup>th</sup> May	English Literature Paper 1 (am)
Wednesday 24 <sup>th</sup> May	English Literature Paper 2 (am)
Monday 5 <sup>th</sup> June	English Language Paper 1 (am)
Monday 12 <sup>th</sup> June	English Language Paper 2 (am)

# English Language exams AQA



Paper	Date	% of GCSE grade
Paper 1 Creative Reading & Writing	05.06.23 (AM) 1hr 45mins	50%
Paper 2 Writers' Viewpoints & Perspectives	12.06.2 (AM) 1hr 45 mins	50%



# Targeted Revision - QLAs

Language Paper 2					
Name:			Ī		
Class:			1		
Target grade:			1		
Mock grade:					
Topic Area		Progress	Mark		
Question 1 (Lis					
Question 2 (Co	ompare ideas)				
	nalyse language)				
	ompare viewpoints)				
	ent and Organisation)				
Writing (Techn					
Next steps:					

# **Practice Questions**



## **English Language**

#### **Revision Booklet**

Paper 1 and 2

#### Exam dates:

Language paper 1: 18th May 2022 Language paper 2: 10th June 2022

# **Practice Questions**

When suddenly I notice Peeta, he's about five tributes to my right, quite a fair distance, still I can tell he's looking at me and I think he might be shaking his head. But the sun's in my eyes, and while I'm puzzling over it the gong rings out.

And I've missed it! I've missed my chance! Because those extra couple of seconds I've lost by not being ready are enough to change my mind about going in. My feet shuffle for a moment, confused at the direction my brain wants to take and then I lunge forward, scoop up the sheet of plastic and a loaf of bread. The pickings are so small and I'm so angry with Peeta for distracting me that I sprint in twenty yards to retrieve a bright orange backpack that could hold anything because I can't stand leaving with virtually nothing.

A boy, I think from District 9, reaches the pack at the same time I do and for a brief time we grapple for it and then he coughs, splattering my face with blood. I stagger back, repulsed by the warm, sticky spray. Then the boy slips to the ground. That's when I see the knife in his back. Already other tributes have reached the Comucopia and are spreading out to attack. Yes, the girl from District 2, ten yards away, running toward me, one hand clutching a half-dozen knives. I've seen her throw in training. She never misses.

And I'm her next target. All the general fear I've been feeling condenses into an immediate fear of this girl, this predator who might kill me in seconds. Adrenaline shoots through me and I sling the pack over one shoulder and run full-speed for the woods. I can hear the blade whistling toward me and reflexively hike the pack up to protect my head. The blade lodges in the pack. Both straps on my shoulders now, I make for the trees. Somehow I know the girl will not pursue me. That she'll be drawn back into the Cornucopia before all the good stuff is gone. A grin crosses my face. Thanks for the knife, I think.

Question 1: Reread lines 1-10. List four things that we learn about the Cornucopia. (4 marks)

Question 2: Reread paragraph 5. How is language used to describe the activity? (8 marks)

Question 3: You now need to think about the whole of the source. How has the writer structured the text to interest you as a reader? (8 marks)

Question 4: Focus this part of your answer on the final two paragraphs. A student having read this said 'This is clearly a dramatic moment for the reader' to what extent do you agree? (20 marks)

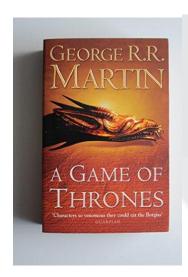
# **Practice Questions**

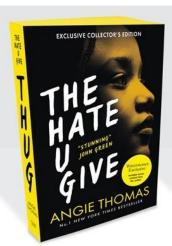
Q5. Either: Write a description suggested by this picture:

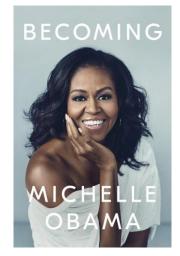


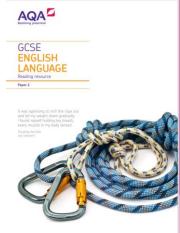
Or: Write the opening of a story with the title 'The Outsider'.

(24 marks for content and organisation 16 marks for technical accuracy) [40 marks]







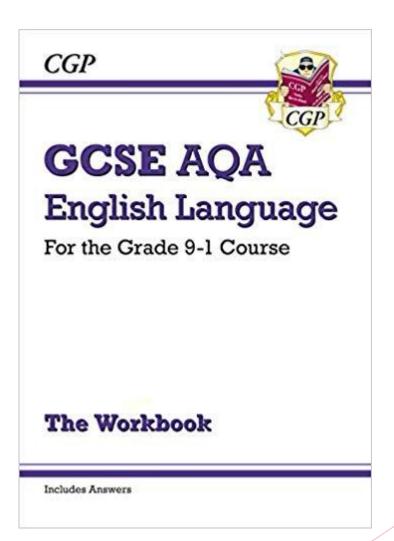


# Read





# English Language Workbook

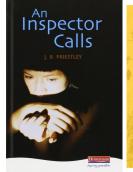


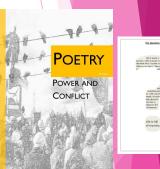
# English Literature exams AQA



Paper	Date	% of GCSE grade
Paper 1 Macbeth and Jekyll & Hyde	17.05.23 (AM) 1hr 45mins	40%
Paper 2 An Inspector Calls, Power & Conflict poetry and unseen poetry	24.05.23 (AM) 2hrs 15 mins	60%









# Targeted Revision - QLAs

# Name: Class:

Topic Area	Progress	Mark
Macbeth AO1: Question		
Macbeth AO1: Quotes		
Macbeth AO2: Terminology		
Macbeth AO2: Effect		
Macbeth AO3: Context		
Macbeth AO4: SPaG		
Unseen Poetry AO1: Question		
Unseen Poetry AO1: Quotes		
Unseen Poetry AO2: Terminology		
Unseen Poetry AO2: Effect		
Unseen Poetry AO4: SPaG		
Unseen Comparison		

Next steps:			

# **Practice Questions**

#### **An Inspector Calls Practice Questions**

You will have a choice of two questions and you must answer one of them.

You could be asked about any of the characters or themes below. Sometimes you might be asked about more than one character and the theme might be worded differently eg. instead of 'generations' they might ask you about older and younger people.

Characters		Themes
G Mr Birling	G	Social class
A Mrs Birling	Α	Responsibility
G Sheila Birling	R	Gender
A Eric Birling		Generations
A Gerald Croft	R	Guilt
G Eva Smith		
R Inspector Goole		
Example:		
EITHER		
01. How does Priestley use the character of Mr Birling to highlight	issue	s within society?
Write about:		
<ul> <li>How Priestley presents Mr Birling</li> <li>Priestley's ideas about society</li> </ul>		
OR:		
02. How does Priestley explore gender inequality in An Inspector C	alls?	

. How Priestley presents these ideas through his characters and the way he writes

Write about:

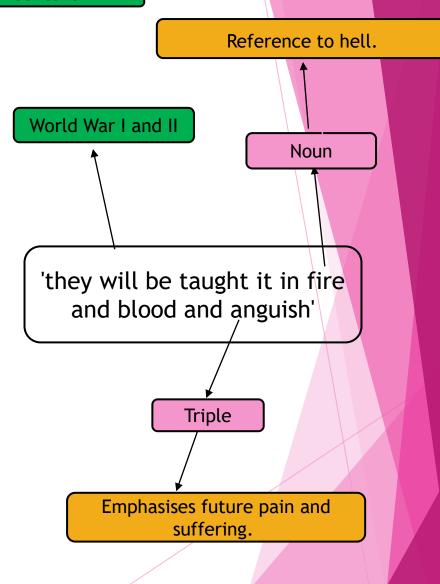
· Priestley's ideas about gender

[30 marks]

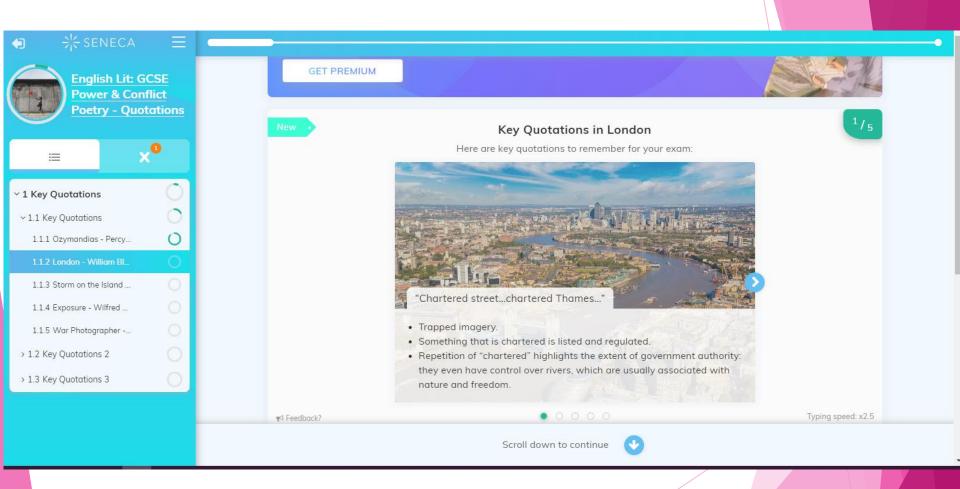
# Subject terminology Effect Context

# Learning quotes

Nu	mber	Quotation:	Number	Quotation:
1	Ŷ	Stage direction: 'heavy-looking, rather portentous man with fairly easy manners but rather provincial in his speech.' (Mr B)	22 + +	Gerald: 'Young and fresh and charming'
2	**	Stage direction: 'a rather cold woman and her husband's social superior.' (Mrs B)	23	Gerald: 'I didn't feel about her as she felt about me.'
3	$\odot$	Stage direction: 'pretty girl in her early twenties, very pleased with life and rather excited.' (Sheila)	24	Sheila: 'You were the wonderful fairy prince.'
4	ă L	Stage direction: 'well-bred young man- about-town.' (Gerald)	25	Inspector: 'Public men have responsibilities as well as privileges.'
5	® ⊕	Stage direction: 'half shy, half assertive.' (Eric)	26	Mrs B: 'Naturally that was one of the things that prejudiced me against her case.'
6	- <u>`</u> Ö	Stage direction: 'Pink and intimate brighter and harder.' (Inspector's arrival)	27	Mrs B: 'she only had herself to blame.'
7	<b>↓↑</b>	Mr B: 'Lower costs and higher prices.'	28	Mrs B: 'I did nothing I'm ashamed of. You have no power to make me change my mind.'
8	Ŏ	'Sheila: 'Oh – it's wonderful! Look – Mummy – isn't it a beauty?'	29	Mrs B: 'Go and look for the father of the child. It's his responsibility.'
9		Mr B: 'I speak as a hard-headed businessman.'	<sup>30</sup> ×	Mrs B: 'I don't believe it. I won't believe it.'
10		Mr B: 'The Germans don't want war.'	31	Eric: 'I was in that state when a chap easily turns nasty.'
11		'Mr B: 'Unsinkable, absolutely unsinkable.'	32	Eric: Eva 'was pretty and a good sport.'
12	*	Mr B: 'as if we were all mixed up together like bees in a hive – community and all that nonsense.'	33 <b>1</b>	Eric: 'You're not the kind of father a chap could go to when he's in trouble.'
13		Mr B: 'If we were all responsible for everything that happened to everybody we'd had anything to do with, it would be very awkward.'	34 ◊•••	Eric to Mrs B: You killed them both - damn you, damn you.'
14	0	Inspector: 'A chain of events.'	35	Insp: 'used her for the end of a stupid drunken evening, as if she was an animal, a thing, not a person.'
15	Î	Eric: 'Why shouldn't they try for higher wages?'	36 <b>M</b>	Mr B: 'There'll be a public scandal.'
16		Sheila: 'But these girls aren't cheap labour – they're people!'	37	Insp: 'There are millions and millions and millions of Eva Smiths and John Smiths still left with us.'
17	6°	Gerald: 'We're respectable citizens and not criminals.'	38	Insp: 'We are members of one body.'
18	(3)	Sheila: 'I'll never, never do it again.'	39	Insp: 'If men will not learn that lesson, they will be taught it in fire and blood and anguish.'
19	<b>③</b>	Gerald: 'I've suddenly realised – taken it in properly – that she's dead-'	40	Eric: 'The money's not the important thing, it's what happened to the girl.'
20	***	Mrs B: 'Girls of that class.'	41	Sheila: 'It frightens me the way you talk.'
21	<b>i</b> ⊞	Sheila to Mrs B: "You mustn't try to build up a kind of wall between us and that girl."	<sup>42</sup> <b>Č</b>	Gerald: 'Everything's all right now, Sheila. What about this ring?'



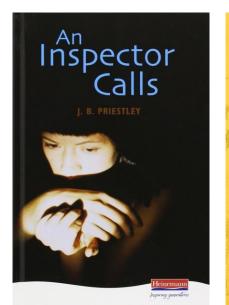
# Seneca Learning

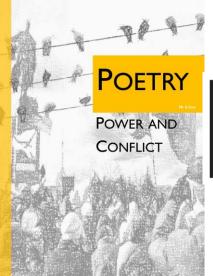


# Read, watch and discuss





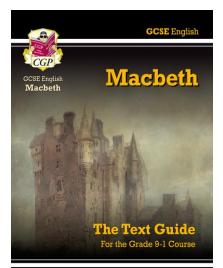


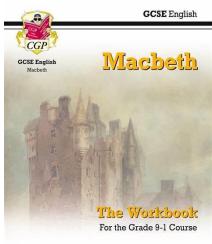


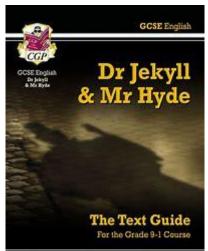


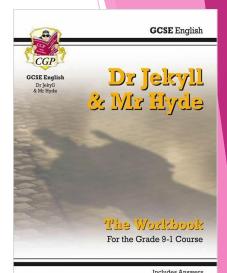


# CGP revision guides



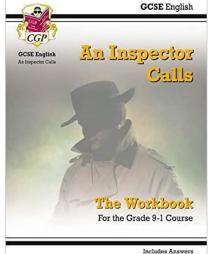


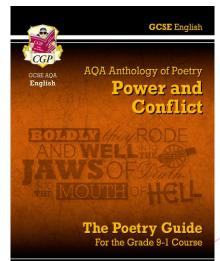


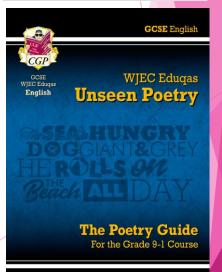


Includes Answers









# Science Exam Preparation

**Key Strategies** 

# **SCIENCE**

EXAM	DATE	TIME	TOPICS
Biology Paper 1	Tuesday 16th May	9 am	B1, B2, B3, B4
Chemistry Paper 1	Friday 22nd May	9 am	C1, C2, C3, C4, C5
Physics Paper 1	Thursday 25th May	9 am	P1, P2, P3, P4
Biology Paper 2	Wednesday 9th June	1 pm	B5, B6, B7
Chemistry Paper 2	Monday 13th June	9 am	C6, C7, C8, C9, C10
Physics Paper 2	Thursday 26th June	9 am	P5, P6, P7

### **EXTRA REVISION SESSIONS**

- We will be running revision sessions for all three sciences. They are always well attended.
- We concentrate on key areas that come up in the exams each year.
- We will send out the dates to your parents and carers closer to the time. Your teachers will all remind you as well.

#### (1) Weekly Revision Bundle

- Each week your teachers post revision work and questions on SMH.
- There are multiple questions to answer so that you have lots and lots of practice.
- ► Go back and answer questions on the topics you don't like! Again, this will build your confidence.

#### (2) Know your data sheet!

- You have the data sheet in the exam which will have all the equations you need to know.
- Practice looking for equations on the data sheet.
- Example:

'Which equation links charge flow, current and time?'

Pick **one term** and look for that first. This will save you time.

#### Physics Equations Sheet

#### GCSE Combined Science: Trilogy (8464) and GCSE Combined Science: Synergy (8465)

#### FOR USE IN JUNE 2023 ONLY

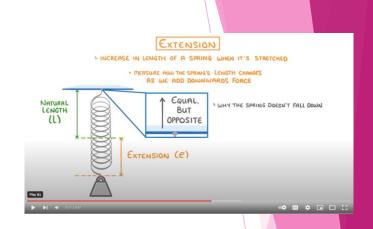
#### HT = Higher Tier only equations

kinetic energy = 0.5 × mass × (speed) <sup>2</sup>	$E_k = \frac{1}{2} m v^2$ $E_e = \frac{1}{2} k e^2$
elastic potential energy = 0.5 × spring constant × (extension) <sup>2</sup>	$E_e = \frac{1}{2} k e^2$
gravitational potential energy = mass × gravitational field strength × height	$E_p = m g h$
change in thermal energy = mass × specific heat capacity × temperature change	$\Delta E = m c \Delta \theta$
power = energy transferred time	$P = \frac{E}{t}$
power = work done time	$P = \frac{W}{t}$
efficiency = useful output energy transfer total input energy transfer	
efficiency = useful power output total power input	
charge flow = current × time	Q = It
potential difference = current × resistance	V = IR
power = potential difference × current	P = VI
power = (current) <sup>2</sup> × resistance	$P = I^2 R$
energy transferred = power × time	E = P t

#### (3) Use your Cognito account

Watch the Cognito videos and then answer exam questions based on the videos you watched.

This is much more active than just watching videos.



Topic 1 - Energy

	Not viewed	Started	Completed	
Changes in Energy 1	•	0	0	Paper Mark Scheme
Changes in Energy 2	•	0	$\circ$	Paper Mark Scheme
Efficiency 1	•	0	0	Paper Mark Scheme
Efficiency 2	<b>O</b>	0	0	Paper Mark Scheme
Efficiency 3	<b>O</b>	0	0	Paper Mark Scheme
Energy Change in a System	<b>O</b>	0	0	Paper Mark Scheme
Energy Transfers in a System	<b>O</b>	0	0	Paper Mark Scheme
National & Global Energy Resources 1	<b>O</b>	0	0	Paper Mark Scheme
National & Global Energy Resources 2	•	0	0	Paper Mark Scheme

- (4) Facts to Learn Sheet
- Learn the definitions on your 'Facts to Learn' sheets.
- These are all worth one to two marks in an exam and they build up quickly.

#### Facts to Learn – Electricity in the Home

•	•
Give the frequency and potential difference of the mains electricity supply.	1. 50 Hz and 230 V.
2. State the difference between AC and DC/	AC (alternating current) – the current changes direction. DC (direct current) – the current flows in the same direction.
3. State the colours of the live, neutral and earth wires.	Live wire – brown, neutral wire – blue, earth wire – green and yellow stripes.
state the function of the live, earth and neutral wires.	4. Live wire carries the AC, neutral wire completes the circuit, earth wire is a safety wire.
5. Describe what happens to a fuse if the current is too high.	5.The fuse will melt, which breaks the circuit and stops current from flowing.
Which equation links power, current and potential difference?	6. Power = Current x Voltage (P = I x V)
7. Which equation links current, power, and resistance? (HINT It is found on the data sheet).	7. Power = Current <sup>2</sup> x Resistance (P = I <sup>2</sup> x R)
8. Which equation links energy, power, and time?	8. Energy = Power x time (E = P x t)
Which equation links Energy, charge, and potential difference?	9. Energy = Charge x voltage (E = Q x V)
10. What is the function of the national grid?	10. A network of cables and transformers linking power stations to consumers.
11. What is the function of a step-up transformer?	11. It increases the potential difference but decreases the current to reduce heat loss in cables.
12. What is the function of a step-down transformer?	12. It decreases the potential difference to a safe level for consumers.

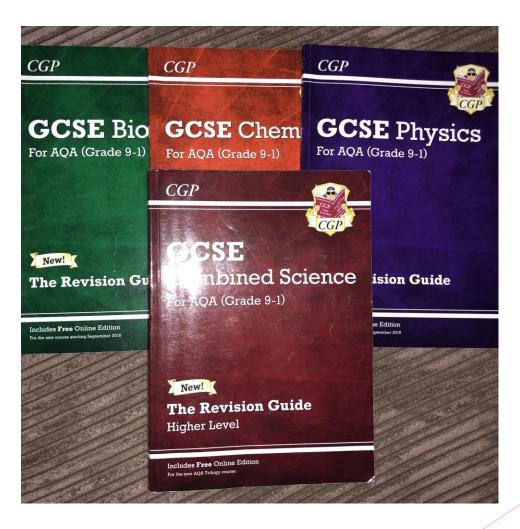
- ▶ (5) Exam questions
- Do lots and lots and lots of exam questions and check your answer carefully to the mark scheme.
- Add whatever you need to and always try and use as few words as possible to save time.

Describe how a sample from a fatberg could be tested for fat and for protein.	
Test for fat	-
	-
Positive result for fat	
Test for protein	
	-
Positive result for protein	(4
Some fats in fatbergs come from undigested food in faeces.	(-
Most fat that humans eat is digested.	
Give the <b>two</b> products of fat digestion.	
1	-
2	_

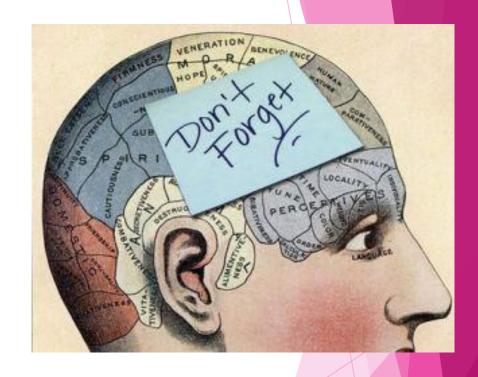
(2)

The chemical composition of fatbergs can be tested

# Promote <u>Active Home Study</u> CGP Revision Guides



- Revision Guides
  - ► Flashcards
  - Repeating end of chapter questions over, and over, and over again!
  - Drawing mind maps
  - NOT "reading"
  - I would caution against just copying notes
- ► GCSE Bitesize



# AS PARENTS, YOU CAN HELP MORE THAN YOU KNOW

- Additional Learning Attendance.
- Push your child to complete Science revision at home.
- Revision Weekend Session attendance.
- Monitor your son/daughter's revision timetable to make sure they are revising on a regular basis.
- Test your child on the Facts to Learn sheets every day.
- Let us know if you need help.

# AWARENESS Be aware of the exam timetable.

- Students will often show a very strong preference for one of the three Science subjects.
- ▶ **Be aware** of when each exam is coming up. Your child should not be revising Biology if they have a Physics exam the next day.

### COMMUNICATE

- It will very likely have been some time since you yourselves studied Science.
- Contact us at school if you have any questions or if you need clarification on a specific topic.

