



Tudor Grange Academy  
Trust

Tudor Grange  
Academy Redditch

Starting Your  
GCSEs



## ***Message from our Principal***



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# The purpose of this evening





# Grading

Legacy GCSEs	New GCSE Grades	Vocational Qualifications
<b>A*</b>	<b>9</b>	Distinction * <b>8.5</b>
	<b>8</b>	
<b>A</b>	<b>7</b>	Distinction <b>7</b>
<b>B</b>	<b>6</b>	Merit <b>5.5</b>
	<b>5</b>	
<b>C</b>	<b>4</b>	Pass <b>4</b>
<b>D</b>	<b>3</b>	Distinction * <b>3</b>
<b>E</b>	<b>2</b>	Distinction <b>2</b>
<b>F</b>		Merit <b>1.5</b>
<b>G</b>	<b>1</b>	Pass <b>1</b>
<b>U</b>	<b>U</b>	Not Yet Achieved (NYA)

COMBINED SCIENCE
9-9
9-8
8-8
8-7
7-7
7-6
6-6
6-5
5-5
5-4
4-4
4-3
3-3
3-2
2-2
2-1
1-1
U



## Data we will share

**Projections:** The grade we predict students will get at the end of Year 11 based on their performance in assessments

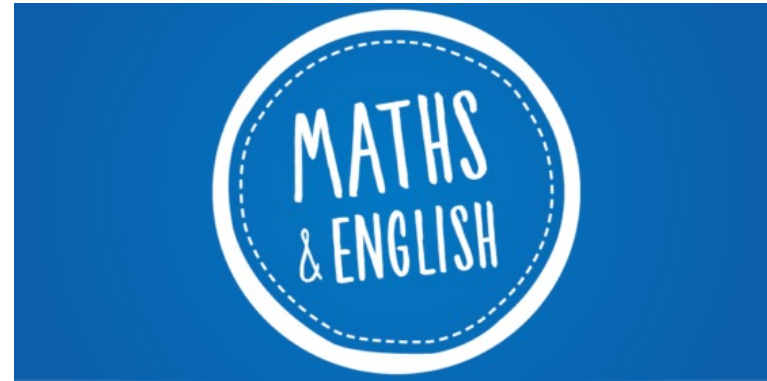
**Minimum Expected Outcome:** The minimum grade students should achieve

**Target Grade:** The grade students should aim for





# Leaving with the best currency



English: 4  
Maths: 4

English: 5  
Maths: 5

English: 4  
Maths: 3



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Know the exam  
boards



Pearson  
Edexcel



## Key Dates

<b>2022/2023</b>	
<b>HT1</b>	GCSE Studies Start
<b>HT2</b>	TA1 Assessments
<b>HT3</b>	Yr10 TA1 Projections released Yr10 Progress evening
<b>HT4</b>	
<b>HT5</b>	TA2 Assessments
<b>HT6</b>	Yr10 TA2 Projections released





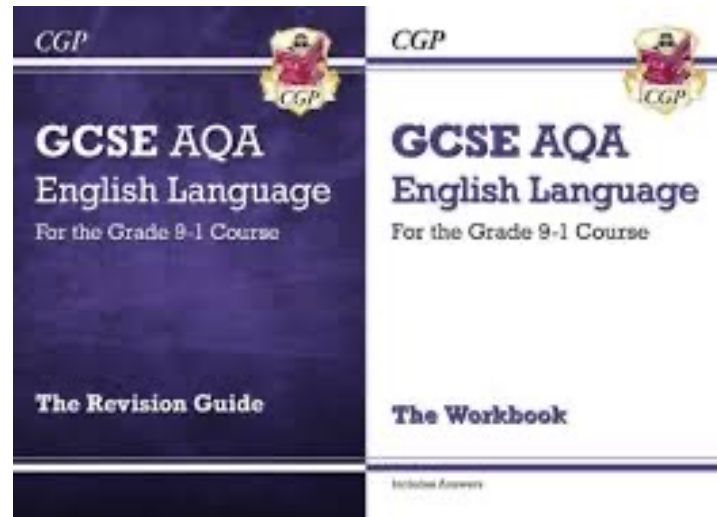
## Key Dates

2023/2024	
HT1	Elevate Information Evening
HT2	After school revision starts Elevate Yr11 Mock Examinations Yr11 Study Skills Evening Sixth Form open evening Yr11 Mock results released
HT3	Yr11 Progress Evening Elevate
HT4	Yr11 Mock Examinations Yr11 Mock Results Released
HT5	GCSE Exams Start
HT6	GCSE Exams End Leavers Assembly Prom



# Revision Guides

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ParentPay





# Homework

Microsoft Teams interface showing a chat conversation in the 'General' channel of the 'REDDITCH - Year 11 Sci...' team. The chat history includes a post from Matt Fleeman dated 16/05 09:17 regarding revision for practicals, and a post from Matt Fleeman dated 16/05 12:32 providing a list of exam questions for paper 1 physics.

**General** Posts Files +

16 May 2022

**MF** 16/05 09:17  
Revision for all the required practicals. I highly recommend you watch the videos required for each paper the day before the exam by following the link or QR code.

**Required Pracs 2022.docx**

Reply

**MF** 16/05 12:32  
A mix of exam questions needed for paper 1 physics

<b>Radiation Questions.doc</b>	<b>Particle Model Questions.doc</b>
<b>National Grid Questions (mainly for hig...</b>	<b>Electricity Questions (mainly for foundat...</b>
<b>Energy Resources Questions.doc</b>	<b>Energy Stores Questions.doc</b>

Reply

**New conversation**



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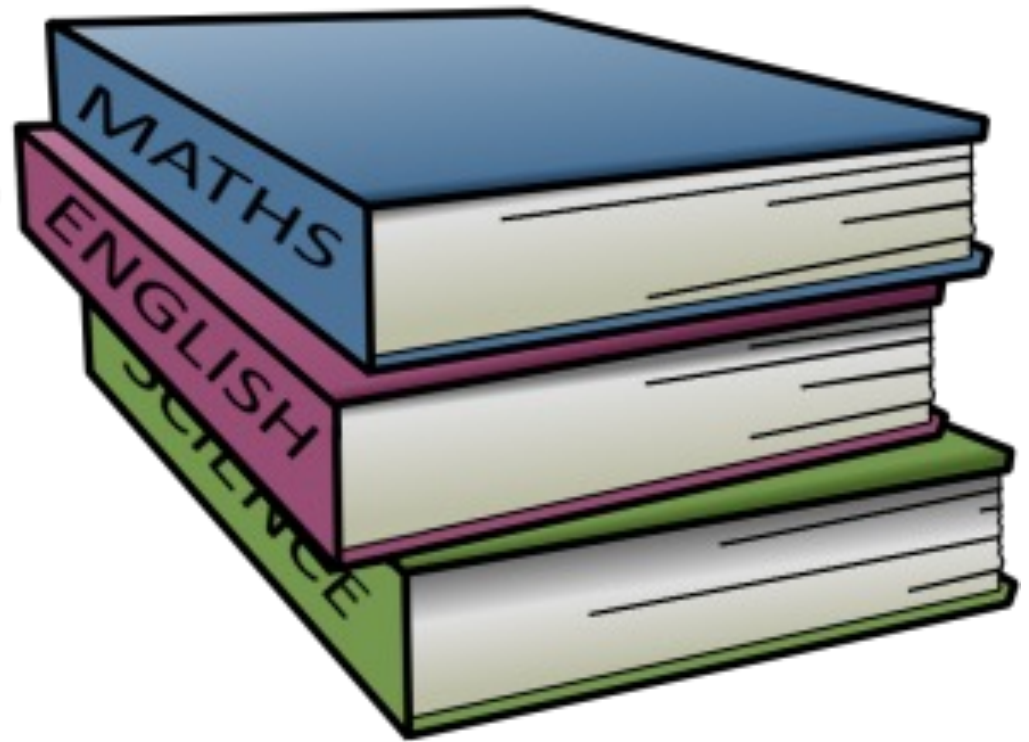
A message from  
the SENDCo



**Exam Access  
Arrangements:  
what are they &  
who gets them?**



# Delving deeper into our core subjects



# English at TGAR



**Mrs L Hyde – Associate College Leader Sixth Form, Learning & Teaching**

**Mrs C Nottingham – Lead English**

**Ms M Evans – Teacher of English and Media Studies**

**Mr L Fielding – Teacher of English**

**Ms M Kaur – Teacher of English**

# GCSE Examinations

**Study of two GCSE qualifications, English Language (8700) and English Literature (8702)**

**Exam Board: AQA**

<https://www.aqa.org.uk/subjects/english>

## **English Language**

- Students will sit two exams and each paper will be equally weighted at 50%
- English Language Paper 1 'Explorations in Creative Reading and Writing' (50%)
- English Language Paper 2 'Writers' Viewpoints and Perspectives (50%)
- Students will also complete a Spoken Language Endorsement – This endorsement is reported as a separate grade (Pass, Merit, Distinction or Not Classified) and will not contribute to the result of the GCSE English Language qualification.

# English Language Paper 1

## What's assessed

### **Section A: Reading**

one literature fiction text

### **Section B: Writing**

descriptive or narrative writing

## Assessed

written exam: 1 hour 45 minutes

80 marks

50% of GCSE

## Questions

### **Reading (40 marks) (25%)– one single text**

1 short form question (1 x 4 marks)

2 longer form questions (2 x 8 marks)

1 extended question (1 x 20 marks)

### **Writing (40 marks) (25%)**

1 extended writing question (24 marks for content, 16 marks for technical accuracy)

## **SECTION A: READING – Assessment Objectives**

AO1	<ul style="list-style-type: none"><li>• Identify and interpret explicit and implicit information and ideas.</li><li>• Select and synthesise evidence from different texts.</li></ul>
AO2	<ul style="list-style-type: none"><li>• Explain, comment on and analyse how writers use language and structure to achieve effects and influence readers, using relevant subject terminology to support their views.</li></ul>
AO3	<ul style="list-style-type: none"><li>• Compare writers' ideas and perspectives, as well as how these are conveyed, across two or more texts.</li></ul>
AO4	<ul style="list-style-type: none"><li>• Evaluate texts critically and support this with appropriate textual references.</li></ul>

## **SECTION B: WRITING – Assessment Objectives**

AO5	<ul style="list-style-type: none"><li>• Communicate clearly, effectively and imaginatively, selecting and adapting tone, style and register for different forms, purposes and audiences.</li><li>• Organise information and ideas, using structural and grammatical features to support coherence and cohesion of texts.</li></ul>
AO6	<ul style="list-style-type: none"><li>• Candidates must use a range of vocabulary and sentence structures for clarity, purpose and effect, with accurate spelling and punctuation. (This requirement must constitute 20% of the marks for each specification as a whole).</li></ul>



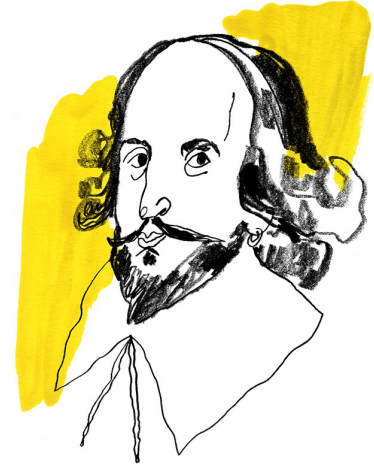




# GCSE Examinations

## English Literature

- Students will sit two exams and study a range of texts to prepare them for this qualification
- English Literature Paper 1 requires study of a Shakespeare play and a 19<sup>th</sup> Century Novel
- This paper is weighted at 40% of the overall grade and is 1 hour 45 minutes
- English Literature Paper 2 requires study of a modern prose or drama text, an anthology of poems, and unseen poetry
- This paper is weighted at 60% of the overall grade and is 2 hours 15 minutes



# English Literature Paper 1

## Paper 1: Shakespeare and the 19th-century novel

### What's assessed

Shakespeare plays  
The 19th-century novel

### How it's assessed

written exam: 1 hour 45 minutes  
64 marks  
40% of GCSE

#### Assessment objectives (AOs)

<b>AO1</b>	Read, understand and respond to texts.  Students should be able to: <ul style="list-style-type: none"><li>• maintain a critical style and develop an informed personal response</li><li>• use textual references, including quotations, to support and illustrate interpretations.</li></ul>
<b>AO2</b>	Analyse the language, form and structure used by a writer to create meanings and effects, using relevant subject terminology where appropriate.
<b>AO3</b>	Show understanding of the relationships between texts and the contexts in which they were written.
<b>AO4</b>	Use a range of vocabulary and sentence structures for clarity, purpose and effect, with accurate spelling and punctuation.

### Questions

**Section A Shakespeare:** students will answer one question on their play of choice. They will be required to write in detail about an extract from the play and then to write about the play as a whole.

**Section B The 19th-century novel:** students will answer one question on their novel of choice. They will be required to write in detail about an extract from the novel and then to write about the novel as a whole

#### Year 11 (2023 examinations):

- Romeo and Juliet by William Shakespeare
- A Christmas Carol by Charles Dickens

#### Year 10 (2024 examinations):

- Macbeth by William Shakespeare
- A Christmas Carol **OR** The Strange Case of Dr Jekyll and Mr Hyde by Robert Louis Stevenson



# English Literature Paper 2

## Paper 2: Modern texts and poetry

### What's assessed

Modern prose or drama texts

The poetry anthology

Unseen poetry

### How it's assessed

written exam: 2 hour 15 minutes

96 marks

60% of GCSE

### Questions

**Section A Modern texts:** students will answer one essay question from a choice of two on their studied modern prose or drama text.

**Section B Poetry:** students will answer one comparative question on one named poem printed on the paper and one other poem from their chosen anthology cluster.

**Section C Unseen poetry:** Students will answer one question on one unseen poem and one question comparing this poem with a second unseen poem

Modern Drama: An Inspector Calls  
by J.B. Priestley  
Poetry Anthology: Power and  
Conflict



### Assessment objectives (AOs)

<b>AO1</b>	Read, understand and respond to texts. Students should be able to: <ul style="list-style-type: none"><li>• maintain a critical style and develop an informed personal response</li><li>• use textual references, including quotations, to support and illustrate interpretations.</li></ul>
<b>AO2</b>	Analyse the language, form and structure used by a writer to create meanings and effects, using relevant subject terminology where appropriate.
<b>AO3</b>	Show understanding of the relationships between texts and the contexts in which they were written.
<b>AO4</b>	Use a range of vocabulary and sentence structures for clarity, purpose and effect, with accurate spelling and punctuation.

# An Inspector Calls Grade 5 Response

Page 1 A

An Inspector Calls by J.B. Priestley and The Rise and Fall of Little Voice by Tim Cartwright

In both "An Inspector Calls" by J.B. Priestley, and "The Rise and Fall of Little Voice" by Tim Cartwright, there is a conflict in viewpoint between the older generation and the younger generation as a result of age difference.

In 'An Inspector Calls', Priestley uses the two younger characters, Sheila and Eric, to act as the responsible and more conscientious generation. In response to Birling trying to forget that anything had ever happened that night, Sheila replies "(passionately) You're pretending everything's just as it was before." The adverb "passionately" contrasts the way that Sheila was presented initially in the book - she was a timid girl who followed orders of her mother and father. The events of the night have clearly changed her perception on how people should be treated, which was one of Priestley's intentions. Priestley demonstrates, through his use of the adverb "passionately", that young people don't have to be passive or accept the political that their parents have indoctrinated them with. He also shows that young people can be more enthusiastic about standing up for what they believe in and that they have the courage to oppose their parents' political views. The verb 'pretending' also hints at the upper class family façade that the Birlings have adopted throughout the play. Sheila and Eric, the two younger characters, are the first to recognise the ridiculous act that their family have put on; they appear to be wise to the audience, who can tell from the beginning that the

integrity and warmth of the family was just a façade. Priestley uses Sheila as a mouthpiece, by using the word 'pretending' to expose the upper class as fake. Furthermore, Sheila says "to Mr Birling that he is 'pretending everything's just as before. The word 'before' could refer to the beginning of the novel, before the inspector came. However, it could also imply that Sheila is actually referring to Mr and Mrs Birling's political viewpoint. Here, she could be questioning their capitalist ideology and adopting a socialistic ideology. By acting on the negativity from the night, Sheila is becoming more pro-active on supporting equality for people of all classes, one of Priestley's messages.

Mr Birling however chooses to ignore the messages that the Inspector has given and continues to go back to the façade that they were previously living in. This shows Mr Birling, the older generation and also capitalist viewpoints as unsympathetic, unchanging and immoral.

In 'The Rise and Fall of Little Voice', the younger generation (Little Voice), also acts as the more responsible, sensible and moral generation. The repetition of 'your nights, your nights, your nights, your nights, your nights of neglect' also, like Sheila, could suggest the Little Voice is so passionate about what she is saying that she cannot get her words to come out. This is backed up by the words in brackets ('words rush out'), showing that rather than speaking calmly, Little Voice is shouting uncontrollably as a stream of consciousness. It could also imply that the character is repeating the words 'your nights' to add emphasis to the amount of nights that her mother was away for. The pronoun "your" also suggests that the nights were exclusive to her

The candidate **directly addresses the question**, immediately citing 'a conflict in viewpoint between the older generation and the younger generation as a result of age difference'. **Well-selected quotations are used** throughout the response to support the points made.

In response to the first bullet point the response shows **understanding of the differing political views** of the older and younger generations. The candidate shows **good contextual understanding** of the taught text, recognising the significance of the upper class family façade that the Birlings have adopted throughout the play'. An **informed personal response** is evident in some of the assertions made.

# Section B: Question Paper and Mark Scheme

## The poems you have studied are:

- Ozymandias
- London
- Extract from The Prelude
- My Last Duchess
- The Charge of the Light Brigade
- Exposure
- Storm on the Island
- Bayonet Charge
- Remains
- Poppies
- War Photographer
- Tissue
- The Emigree
- Checking Out Me History
- Kamikaze



Compare how poets present ideas about power in 'Ozymandias' and in one other poem from 'Power and conflict'.

5 I met a traveller from an antique land  
 Who said: Two vast and trunkless legs of stone  
 Stand in the desert. Near them on the sand,  
 Half sunk, a shattered visage lies, whose frown  
 And wrinkled lip, and sneer of cold command  
 Tell that its sculptor well those passions read  
 Which yet survive, stamped on these lifeless things,  
 The hand that mocked them and the heart that fed;  
 And on the pedestal these words appear:  
 10 'My name is Ozymandias, king of kings:  
 Look on my works, ye Mighty, and despair!  
 Nothing beside remains. Round the decay  
 Of that colossal wreck, boundless and bare,  
 The lone and level sands stretch far away.

Percy Bysshe Shelley

[30 marks]

Level 4 <i>Clear understanding</i>  16–20 marks	AO1	<ul style="list-style-type: none"> <li>• Clear comparison</li> <li>• Effective use of references to support explanation</li> </ul>
	AO2	<ul style="list-style-type: none"> <li>• Clear explanation of writer's methods with appropriate use of relevant subject terminology</li> <li>• Understanding of effects of writer's methods to create meanings</li> </ul>
	AO3	<ul style="list-style-type: none"> <li>• Clear understanding of ideas/perspectives/ contextual factors shown by specific links between context/text/task</li> </ul>
Level 3 <i>Explained, structured comments</i>  11–15 marks	AO1	<ul style="list-style-type: none"> <li>• Some explained comparison</li> <li>• References used to support a range of relevant comments</li> </ul>
	AO2	<ul style="list-style-type: none"> <li>• Explained/relevant comments on writer's methods with some relevant use of subject terminology</li> <li>• Identification of effects of writer's methods to create meanings</li> </ul>
	AO3	<ul style="list-style-type: none"> <li>• Some understanding of implicit ideas/perspectives/contextual factors shown by links between context/text/task</li> </ul>

# Year 10 Overview

Year 10	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>KS4 GCSE</b>	<b>Macbeth</b> Shakespeare	<b>Macbeth &amp; Language Paper 1</b> Shakespeare	<b>A Christmas Carol &amp; Language Paper 2</b> <b>Set 1: Jekyll &amp; Hyde *</b> 19 <sup>th</sup> Century Novel	<b>A Christmas Carol &amp; Language Paper 2</b> <b>Set 1: Jekyll &amp; Hyde *</b> 19 <sup>th</sup> Century Novel	<b>Power &amp; Conflict Poetry</b> Poetry Anthology	<b>Unseen Poetry</b>
<b>Fundamentals</b>	<ol style="list-style-type: none"> <li>To understand the plot and organisational structure of the play, evaluating key moments</li> <li>To explore how characters, themes and wider ideas are presented to convey meaning</li> <li>To make connections between the text and relevant contexts</li> <li>To evaluate Shakespearean conventions and understand the tragic form</li> <li>To engage with writer's methods, specifically dramatic techniques, and analyse the effect of language, structure and word choice</li> <li>Knowledge of exam requirements / assessment objectives and develop skill of essay writing (Lit Paper 1)</li> </ol>	<ol style="list-style-type: none"> <li>To understand the requirements of the exam (Lang Paper 1)</li> <li>To identify language and analyse the effect of a range of methods</li> <li>To identify structural features and analyse the effect of a range of methods</li> <li>To evaluate the effectiveness of writer's methods, engaging critically with unseen texts (20<sup>th</sup> century)</li> <li>Practise writing in timed conditions</li> </ol>	<ol style="list-style-type: none"> <li>To understand plot and key moments of the novella, engaging with organisational structure</li> <li>To explore how characters, themes and wider ideas are presented to convey meaning</li> <li>To make connections between the text and relevant contexts</li> <li>To engage with writer's methods and analyse the effect of language, structure and word choice</li> <li>To engage with wider reading materials and develop knowledge of literary texts from the 19<sup>th</sup> Century</li> <li>Knowledge of exam requirements / assessment objectives and develop skill of essay writing (Lit Paper 1)</li> </ol>	<ol style="list-style-type: none"> <li>To understand the requirements of the exam (Lang Paper 2)</li> <li>Read, summarise, analyse and compare non-fiction texts</li> <li>Understand different perspectives and engage with evidence</li> <li>Consider the form and style of texts and compare how meaning is conveyed</li> <li>Explore societal themes of poverty, class, gender, religion and morality, discovery, family etc.</li> </ol>	<ol style="list-style-type: none"> <li>To understand how each poem in the anthology thematically links to power and conflict</li> <li>To have a clear understanding of the relationship between a text and its context</li> <li>To engage with key quotations, identifying poetic devices</li> <li>To explore the use and effect of a range of devices</li> <li>To comparatively analyse poems from the anthology in relation to assessment objectives</li> </ol>	<ol style="list-style-type: none"> <li>Read a selection of unseen poems for understanding, establishing main ideas and themes</li> <li>Engage with evidence to establish writer's attitudes and intentions</li> <li>Identify poetic devices and explain effect of form, structure, language and word choice</li> <li>Write analytically and practise responding to exam-style questions, in timed conditions</li> <li>Compare ideas conveyed in two poems through close analysis of methods</li> </ol>

Homework will be set once a week and will relate to the fundamental learning and teaching of that week. Students will revisit and retain key information through these activities and be expected to complete exam-style responses at home (30 minutes).

# Websites and Revision Guides

## Websites:

- AQA
- BBC Bitesize
- Oak Academy
- Revision World
- SparkNotes
- York Notes
- YouTube

## Revision Guides:

CGP 'The Text Guide'

CGP 'GCSE AQA English Literature / Language Complete Revision and Practice'

Snap Revision





# GCSE Combined Science- Trilogy



Mr A. Grubb (Head of  
Science)

Mr B Lumley

Mr B Wilkes

Miss L Lane

Miss J Bates

Mr M Fleeman

Mr M Winkworth  
(Technician)

# Subject Content:

## Biology

1. Cell biology
2. Organisation
3. Infection and response
4. Bioenergetics
5. Homeostasis and response
6. Inheritance, variation and evolution
7. Ecology

## Chemistry

8. Atomic structure and the periodic table
9. Bonding, structure, and the properties of matter
10. Quantitative chemistry
11. Chemical changes
12. Energy changes
13. The rate and extent of chemical change
14. Organic chemistry
15. Chemical analysis
16. Chemistry of the atmosphere
17. Using resources

## Physics

18. Energy
19. Electricity
20. Particle model of matter
21. Atomic structure
22. Forces
23. Waves
24. Magnetism and electromagnetism

# Assessments

## Biology

Paper 1: Biology topics 1–4

Paper 2: Biology topics 5–7

Multiple choice, structured, closed short answer, and open response

## Chemistry

Paper 1: Chemistry topics 8-12

Paper 2: Chemistry topics 13-17

Multiple choice, structured, closed short answer, and open response

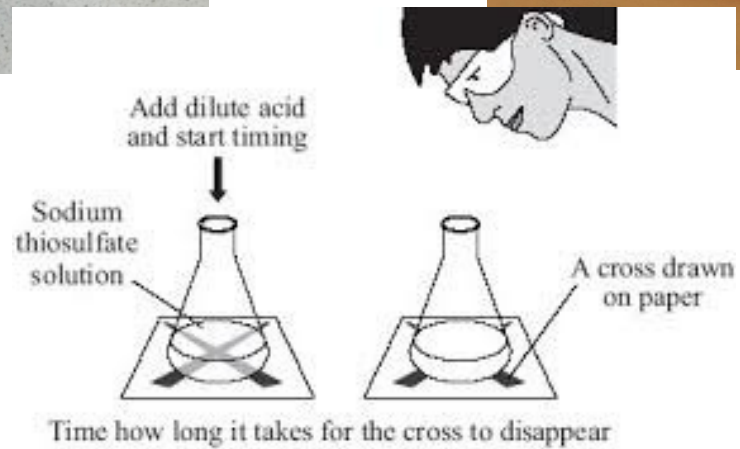
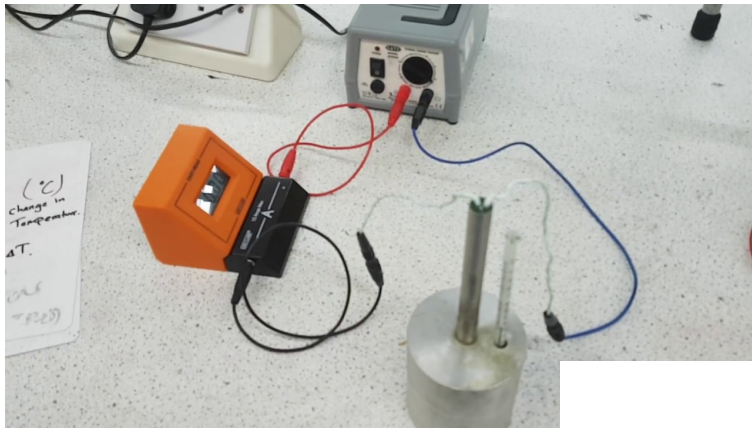
## Physics

Paper 1: Physics topics 18–21

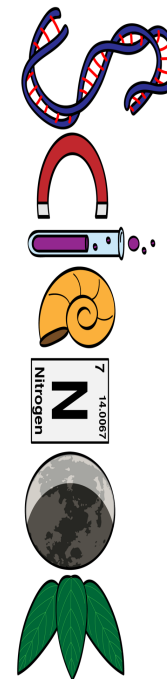
Paper 2: Physics topics 22–24

Multiple choice, structured, closed short answer, and open response

# Required Practicals



Timeline		Biology	Chemistry	Physics
Year 9	Term 3	<ul style="list-style-type: none"> <li>Cells</li> </ul>	<ul style="list-style-type: none"> <li>Atomic Structure Part 1</li> <li>The Periodic Table Part 1</li> <li>Structure and bonding Part 1</li> </ul>	<ul style="list-style-type: none"> <li>Energy Crisis</li> </ul>
Year 10	Term 1	<ul style="list-style-type: none"> <li>Organisation, Breathing and Digestion</li> <li>The Cardiovascular System</li> </ul>	<ul style="list-style-type: none"> <li>Atomic structure Part 2</li> <li>The Periodic Table part 2</li> <li>Structure and Bonding Part 2</li> <li>Energy Changes</li> </ul>	<ul style="list-style-type: none"> <li>Energy Crisis</li> <li>Molecules and Matter</li> </ul>
	Term 2	<ul style="list-style-type: none"> <li>Non –Communicable Diseases</li> <li>Health and Disease</li> </ul>	<ul style="list-style-type: none"> <li>Quantitative Chemistry 1</li> <li>Chemical Reactions</li> </ul>	<ul style="list-style-type: none"> <li>Radioactivity</li> <li>Energy and problem Solving</li> <li>Electrical Circuits</li> </ul>
	Term 3	<ul style="list-style-type: none"> <li>Plants</li> <li>Humans and The Environment</li> </ul>	<ul style="list-style-type: none"> <li>Electrolysis</li> <li>Rates</li> </ul>	<ul style="list-style-type: none"> <li>Electricity In The Home</li> <li>Laws Of Forces and Motion</li> </ul>
Year 11	Term 1	<ul style="list-style-type: none"> <li>The Nervous System</li> <li>Hormones</li> <li>Reproduction</li> <li>DNA and Genetics</li> </ul>	<ul style="list-style-type: none"> <li>Quantitative Chemistry/acids 2</li> <li>Reversible Reactions</li> </ul>	<ul style="list-style-type: none"> <li>Motion Graphs and Acceleration</li> <li>Waves</li> <li>Electromagnetic Spectrum</li> </ul>
	Term 2	<ul style="list-style-type: none"> <li>Organisms and their environment</li> <li>Evolution and Extinction</li> <li>Genetic Technology</li> </ul>	<ul style="list-style-type: none"> <li>Organic Chemistry</li> <li>The Atmosphere</li> <li>Using Resources</li> </ul>	<ul style="list-style-type: none"> <li>Electromagnetism</li> </ul>
	Term 3	<ul style="list-style-type: none"> <li>Revision and Exams</li> </ul>	<ul style="list-style-type: none"> <li>Revision and Exams</li> </ul>	<ul style="list-style-type: none"> <li>Revision and Exams</li> </ul>



# 6 Mark Questions

- 6 mark questions may require explanations, examples to illustrate a specified concept, judgements of advantages and disadvantages, a description of a process or an experimental method.
- Marks are awarded for scientific content and the quality of the writing.
- This means key ideas must be clear and the explanation must make sense, the points in a logical order.
- Most students lose marks because their answers lack sufficient detail eg scientific vocabulary or because their answer is rambling or confused.
- Markschemes will usually include graded answers (low=1-2 marks, 3-4, 5-6) and examiners will decide which description fits best, then award the higher or lower score depending on the quality of writing.
- Aim for between 4 and 6 scientific points or steps in a process; if opposing viewpoints are needed include points for *and* against, or examples of plants *and* animals etc.

# Question



In the back of the chemical store the technician finds four bottles of white solids. Their labels have faded but the list of stock chemicals suggests they may contain the following substances:

- aluminium chloride
- magnesium chloride
- potassium carbonate
- potassium sulfate
- copper sulfate

Describe how you would analyse the solids to determine their identity. You can use standard laboratory reagents and you may also use flame tests. There is more than one way to carry out this analysis but you should try to minimise the number of different tests being used.

Give the results of any tests you would carry out.

# Answer- Written

Your written answer should be in coherent and logical sentences.

If you need to, cross off bits of the exam question once you have covered them so you know what you have left to cover.

This is an example of a 6 mark answer.

Firstly, add water to all the samples. If one is a blue solution then this is copper sulfate. All the others give colourless solutions.

Then add barium chloride solution to the samples. This is the test for the sulfate ion so if a white solid is formed then the sample would be potassium sulfate. All other substances would show no change.

Then you can test for the carbonate ion using acid. Bubbles of  $\text{CO}_2$  would be seen if the sample is potassium carbonate. The others would stay the same.

This leaves us with 2 substances to distinguish between, aluminium chloride and magnesium chloride. These give the same flame test result so you should use dilute sodium hydroxide. Both give white solids but if a sample has aluminium in it then the solid would redissolve when an excess is added. So if the white solid remains then the sample is magnesium chloride.



# Homework Plan

Year 9

20 recall questions per fortnight

Year 10

20 recall questions per fortnight- minimum

Additional exam questions from each Science- teacher choice

Year 11

20 recall questions per fortnight

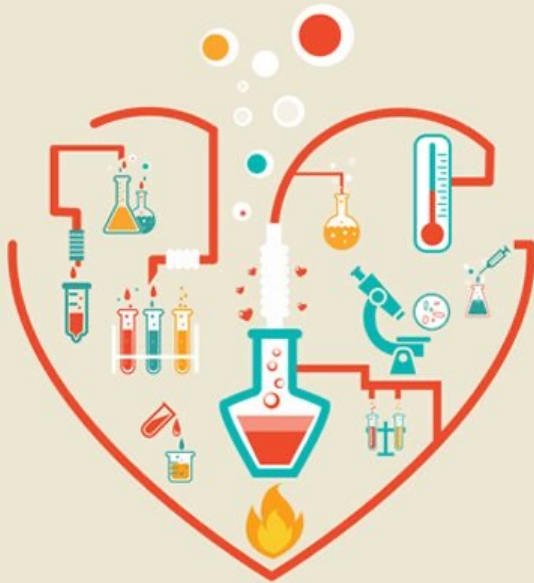
Additional exam questions from each Science- teacher choice

Past papers to complete over half terms

# Useful Websites

- BBC Bitesize (AQA- Combined Science):  
<https://www.bbc.co.uk/bitesize/examspecs/z8r997h>
- Seneca Learning: [Seneca - Learn 2x Faster \(senecalearning.com\)](https://www.senecalearning.com)
- Fuseschool: <https://www.fuseschool.org/>
- Khan Academy: <https://www.khanacademy.org/>
- Crash course: <https://thecrashcourse.com/>
- Science Shorts:  
<https://www.youtube.com/user/ScienceShorts/videos>
- Save my exams: <https://www.savemyexams.co.uk/>
- Primrose Kitten:  
<https://www.youtube.com/channel/UCBgvml8AR4QIK2e0EfJwaA>

# GCSE Maths



Mr Hampton (Head of Maths)

10X-Ma1 - Mr Feiven

10X-Ma2 - Miss Pace

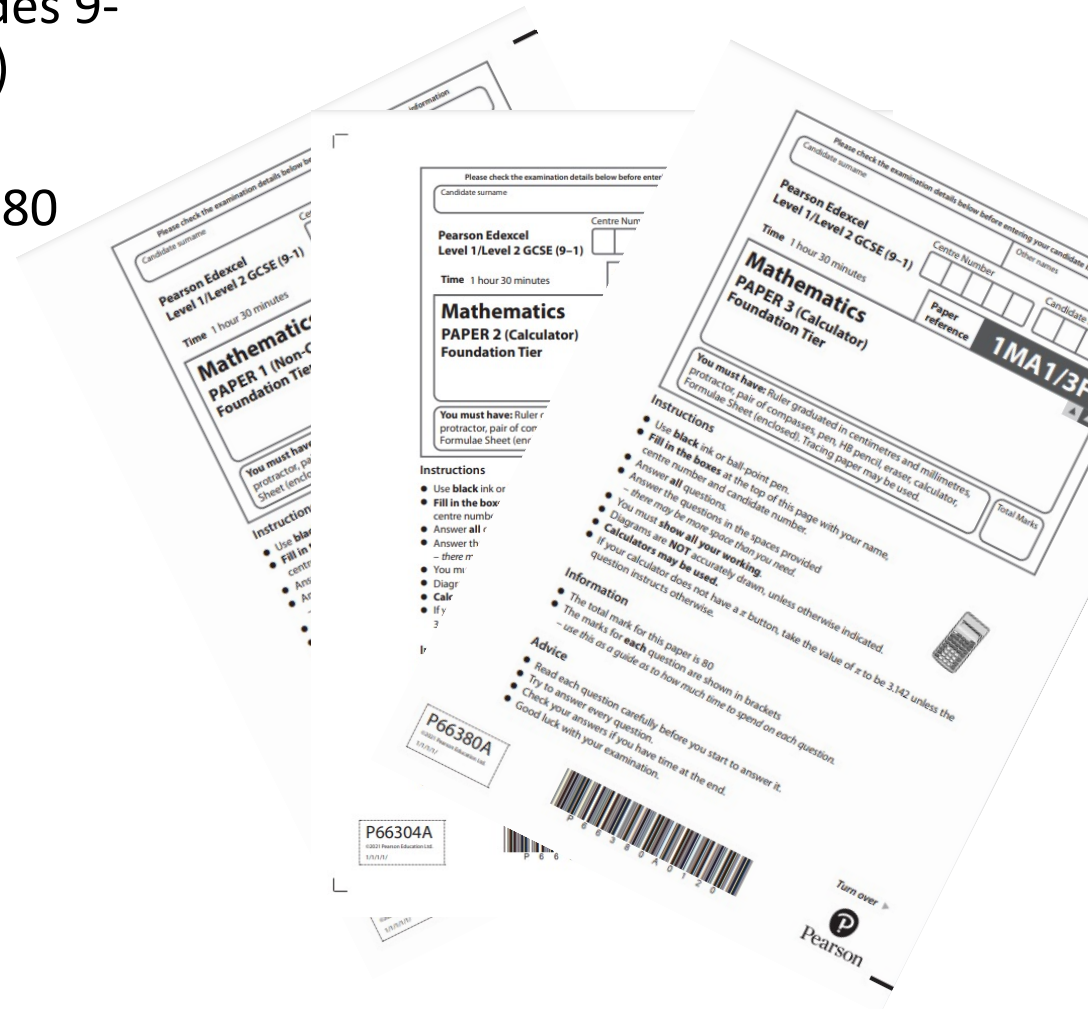
10Y-Ma1 - Mr Feiven

10Y-Ma2 - Miss Pace

Mr Davies

# GCSE Maths

- Maths is split into higher (grades 9-3) and foundation (grades 5-1)
- In each tier there are three 90minute papers, each worth 80 marks
- Paper 1 on both tiers is non-calculator, papers 2 and 3 are calculator



The assessments will cover the following content headings:

1. Number
2. Algebra
3. Ratio, proportion and rates of change
4. Geometry and measures
5. Probability
6. Statistics

The table below illustrates the topic areas covered in this qualification and the topic area weightings for the assessment of the Foundation

tier and the assessment of the Higher

Tier	Topic area	Weighting
Foundation	Number	22 - 28%
	Algebra	17 - 23%
	Ratio, Proportion and Rates of change	22 - 28%
	Geometry and Measures	12 - 18%
	Statistics & Probability	12 - 18%
Higher	Number	12 - 18%
	Algebra	27 - 33%
	Ratio, Proportion and Rates of change	17 - 23%
	Geometry and Measures	17 - 23%
	Statistics & Probability	12 - 18%

		% Foundation	% Higher
<b>AO1</b>	<p><b>Use and apply standard techniques</b></p> <p>Students should be able to:</p> <ul style="list-style-type: none"> <li>accurately recall facts, terminology and definitions</li> <li>use and interpret notation correctly</li> <li>accurately carry out routine procedures or set tasks requiring multi-step solutions.</li> </ul>	50	40
<b>AO2</b>	<p><b>Reason, interpret and communicate mathematically</b></p> <p>Students should be able to:</p> <ul style="list-style-type: none"> <li>make deductions, inferences and draw conclusions from mathematical information</li> <li>construct chains of reasoning to achieve a given result</li> <li>interpret and communicate information accurately</li> <li>present arguments and proofs</li> <li>assess the validity of an argument and critically evaluate a given way of presenting information.</li> </ul> <p>Where problems require students to 'use and apply standard techniques' or to independently 'solve problems' a proportion of those marks should be attributed to the corresponding Assessment Objective.</p>	25	30

		% Foundation	% Higher
<b>AO3</b>	<p><b>Solve problems within mathematics and in other contexts</b></p> <p>Students should be able to:</p> <ul style="list-style-type: none"> <li>translate problems in mathematical or non-mathematical contexts into a process or a series of mathematical processes</li> <li>make and use connections between different parts of mathematics</li> <li>interpret results in the context of the given problem</li> <li>evaluate methods used and results obtained</li> <li>evaluate solutions to identify how they may have been affected by assumptions made.</li> </ul> <p>Where problems require students to 'use and apply standard techniques' or to 'reason, interpret and communicate mathematically' a proportion of those marks should be attributed to the corresponding Assessment Objective.</p>	25	30
<b>Total</b>		<b>100%</b>	<b>100%</b>

# AO1

1 Change 40 centimetres into millimetres.

..... millimetres

(Total for Question 1 is 1 mark)

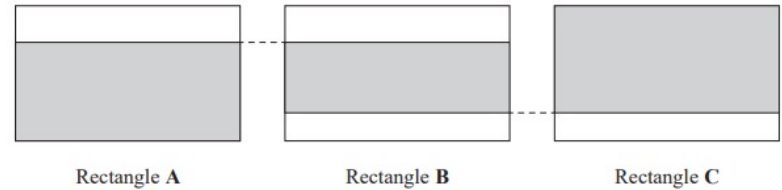
2 Simplify  $e + e + e + e$

.....

(Total for Question 2 is 1 mark)

# AO2

20 The diagram shows three identical rectangles A, B and C.



$\frac{5}{8}$  of rectangle A is shaded.

$\frac{9}{11}$  of rectangle C is shaded.

Work out the fraction of rectangle B that is shaded.

11 At the end of October, Fiona's electricity meter reads 88 738 kWh.  
At the end of November, her electricity meter reads 89 198 kWh.

Each kWh of electricity Fiona uses costs 16p

Work out how much Fiona had to pay for the electricity she used in November.

# Homework

Empowering learners and teachers in mathematics

Question 1 ✕ Round 428250.3 to the nearest 1000.

KS3/4 → Number → Rounding & Estimation  
**K38a: Round a number to the nearest whole, ten, hundred or thousand.**

[Watch Worked Example](#)

Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 COMPLETION 0%

Round 428250.3 to the nearest 1000.

[Submit Answer](#)

Support is available for all students between 15:20 and 16:20 every Monday in the IT rooms

Question 3 ✓ Round 46371.9 to the nearest 100.  
11 secs

K38a Round a number to the nearest whole, ten, hundred or thousand. [Review](#) [See full markscheme](#)

CORRECT ANSWER:  
46400

STUDENT ANSWER:  
46400



# Year 10 – Half Term 1



## Maths Learning Journey

### Year 10 Higher: Half Term 1 – Ratio & Proportion



Ratio is used for comparing two quantities of the same kind. The ratio formula for two numbers,  $a$  and  $b$  is expressed as  $a:b$ . The concept of ratio and proportion is based on fractions, which was taught in Year 9. Ratio and proportion are the key foundations for various other concepts in Mathematics, as they are an excellent way to scale quantities up or down. They have their applications in solving many day-to-day problems, like when we compare heights, weights, distance or time or while adding ingredients in cooking, and so on.

#### Fundamentals for Checkpoint 1:

- The notation of ratio
- Find Equivalent Ratios / Simplify Ratios
- Write a relationship as a ratio
- Find equivalent unit ratios ( $1:n$  or  $n:1$ )
- Find missing parts in ratios
- Share in a ratio
- Work with ratios, when given the difference between parts
- Work with ratios – combining pairs of ratios
- Work with ratios on a line

#### Fundamentals for Checkpoint 2:

- Use a unitary method
- Use proportion to answer a "recipes question"
- Find the best value
- Calculations involving exchange rates
- Work with conversion graphs
- Solve ratio problems in context
- Solve algebraic direct proportion question
- Solve algebraic indirect proportion question
- Use similarity to find missing lengths

#### Fundamentals for Checkpoint 3:

- Multiply & divide surds / Expanding brackets involving surds
- Simplify surds
- Add & subtract surds
- Expand brackets involving surds & simplify the result
- Completing the square involving surds
- Rationalise the denominators of fractions involving surds



## Maths Learning Journey

### Year 10 Foundation: Half Term 1 – Ratio & Proportion



Ratio is used for comparing two quantities of the same kind. The ratio formula for two numbers,  $a$  and  $b$  is expressed as  $a:b$ . The concept of ratio and proportion is based on fractions, which was taught in Year 9. Ratio and proportion are the key foundations for various other concepts in Mathematics, as they are an excellent way to scale quantities up or down. They have their applications in solving many day-to-day problems, like when we compare heights, weights, distance or time or while adding ingredients in cooking, and so on.

#### Fundamentals for Checkpoint 1:

- The notation of ratio
- Find Equivalent Ratios / Simplify Ratios
- Write a relationship as a ratio
- Find equivalent unit ratios ( $1:n$  or  $n:1$ )
- Find missing parts in ratios
- Share in a ratio
- Work with Ratios, when given the difference between parts

#### Fundamentals for Checkpoint 2:

- Use a unitary method
- Use proportion to answer a "recipes question"
- Find the best value
- Calculations involving exchange rates
- Work with conversion graphs
- Solve ratio problems in context
- Use similarity to find missing lengths



# Aspire Attend Achieve

## EVERY SCHOOL DAY COUNTS



## EVERY MINUTE COUNTS

### LATENESS = LOST LEARNING

(Figures below are calculated over a school year)

5 minutes late each day	<b>3 days lost!</b>
10 minutes late each day	<b>6.5 days lost!</b>
15 minutes late each day	<b>10 days lost!</b>
20 minutes late each day	<b>13 days lost!</b>
30 minutes late each day	<b>19 days lost!</b>

**BE AT THE  
CLASSROOM  
ON TIME  
AND READY  
TO LEARN!**