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KS4 Revision Evening

"The bad news is that from now onwards time flies, the good news is you're the pilot!"

Gareth Yassin – Headteacher

Presentations…

- Mr G Yassin – Headteacher
- Ms M Hollis – Head of KS4 English
- Mr B Robinson – Head of KS4 Maths
- Mr M Hart – Faculty Lead Science

Revision

- GCSE grades are important as they are the keys to unlock the next stage of your life.
- More than anything you want to go onto something that you **choose** to do.
- When you open your exam results in the summer you don't want to have any regrets – you know that you tried your very best.

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Reflection

- How do you currently feel about revision for your GCSEs?
  - Have you started or are you putting it off?
  - Do you know what to do?
  - Have you got a plan in place?

Why it's important to revise:

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Learning is hard work! But it's definitely possible!

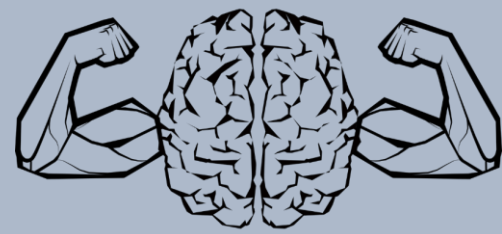
Think about the things you know off-by-heart; the lyrics to songs from a few years ago, the words to your favourite films.

You generally remember these things because

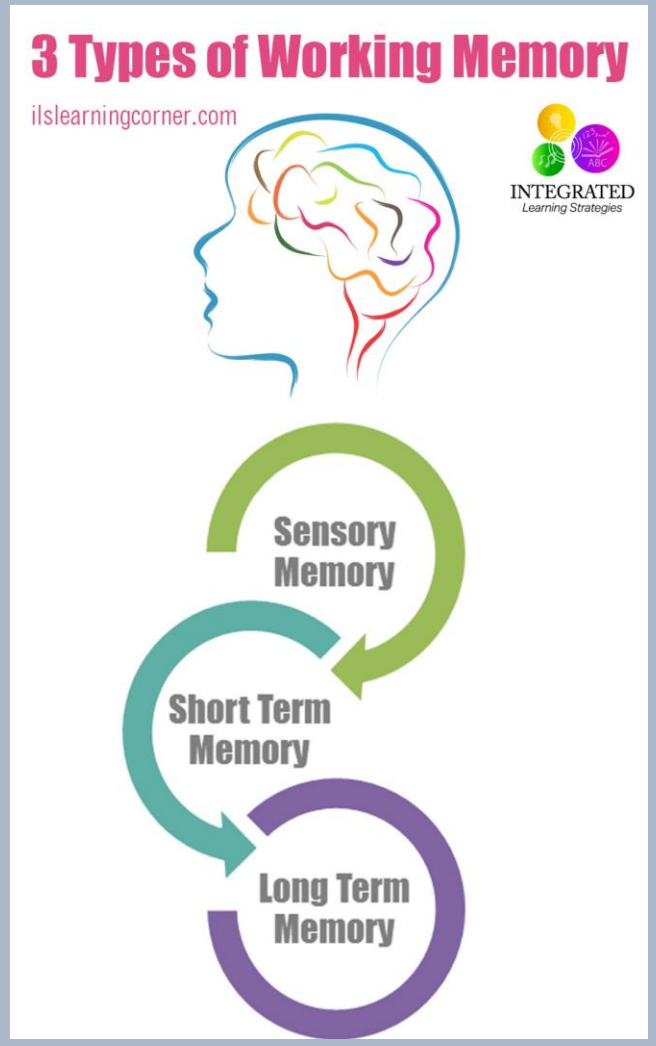
(a) you enjoyed them and

(b) you listened to or watched them lots of times.

But, since you were born, you have learned and understood millions of pieces of information that you will know for the rest of your life.



How the memory works:



Your sensory memory receives information all the time – things you hear, things you see, things you taste. If you ignore this information, it's lost forever.

If you **pay attention** to the information, it becomes stored in the short-term memory – but this doesn't last long and it can't store much information.

To move information from short to long term memory you have to **understand** the information and put **effort** into the process.

Even after this memories can be lost over time if they are not attended to **regularly**. The more you revisit things, the stronger the memories become.

THIS IS WHY LEARNING IS SO DIFFICULT - IT TAKES EFFORT!

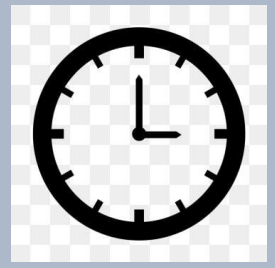
KEY POINTS:

- ‘little and often’.

- Revisiting things you find difficult or have got wrong in the past, at regular intervals, is vital. Over time, as you understand a little more, the work gets easier and you learn more. You start to make links between topics and ideas, and it becomes easier still.

- But beware – it’s tempting to spend time revising stuff you already know but **progress is made by revising things we don’t know!**

Planning your revision:



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To get the most out of your revision you must plan it! If not, it's too tempting to pick up something comfortable and easy and learn very little.

You need to plan:

- When you are going to revise? (what times are best for you? How long is reasonable? 20-30mins at a time is best)
- Where you are going to revise? (have you got a space of your own? **Are your phone and other distractions away from you while you're revising?**)
- What you are going to revise? (have you planned exactly what you want to learn in this chunk of time? Which question do you want to be able to answer?)
- When and how you're going to relax? (this is just as important. You need to eat and drink well and plan time with friends and family. **You won't work well if you don't relax well**).

Hr	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9:00 AM							
	BREAK	BREAK	BREAK	BREAK	BREAK	BREAK	BREAK
10:00 AM							
	BREAK	BREAK	BREAK	BREAK	BREAK	BREAK	BREAK
11:00 AM							
	BREAK	BREAK	BREAK	BREAK	BREAK	BREAK	BREAK
1:00 PM						FREE	FREE
	BREAK	BREAK	BREAK	BREAK	BREAK		
2:00 PM						FREE	FREE
	BREAK	BREAK	BREAK	BREAK	BREAK		
3:00 PM						FREE	FREE
4:00 PM	**Review**	**Review**	**Review**	**Review**	FREE	FREE	FREE

Use different colours for different topics . Remember to keep reviewing what you have revised and testing yourself at the end of the day, the next day and the end of the week - this will help you to recall the information in the exam.

Planning your revision

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Be open to feedback...

How effective are strategies?

- **Summarising** - writing summaries of texts - **LOW**
- **Highlighting/underlining** - **LOW**
- **Keyword mnemonics** - choosing a word to associate with information - **LOW**
- **Imagery -** forming mental pictures while reading or listening - **LOW**
- **Re-reading** - **LOW**

- **Interleaved practice -** switching between different kinds of problems - **MODERATE**
- **Elaborative interrogation** - being able to explain a point or fact - **MODERATE**
- **Self-explanation** - how a problem was solved - **MODERATE**

- **Practice testing** - Self-testing to check knowledge - especially using flash cards - **HIGH**
- **Distributed practice -** spreading out study over time - **HIGH**

Recommended techniques:

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Quizzing

Good old fashioned quizzing is an ideal vehicle to get students self-testing, which is proven to be a robust revision strategy, so that students can calibrate their knowledge and remembering. There are various types of quizzes, of course, such as short answer quizzing, multiple choice or a hybrid of the two, with different question types suiting different purposes.

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Flashcards

Flashcards are a very familiar tool used by students. Crucially, however, too many students fail to use them for effective self-testing.

Write a question on the front of a card and the answer/s on the back and test yourself.

Students should beware dropping flashcards they think they know!

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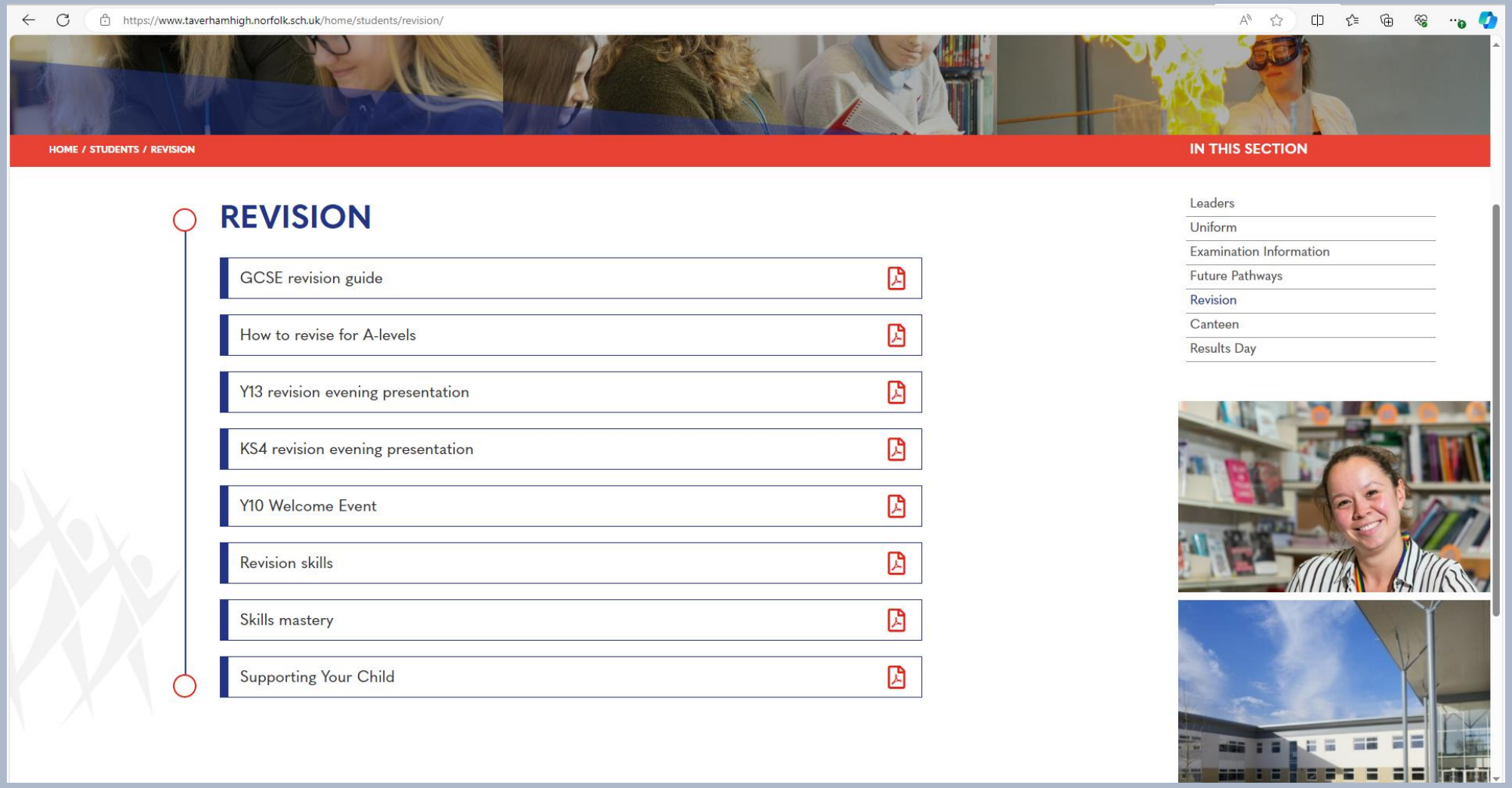
Past questions

Students need to practise examination questions over and over, well spaced over time. The effect of exploring worked examples or exam answers, as well as writing their own, helps students process and refine their revision to meet the parameters of exam success.

Resources:


https://www.taverhamhigh.norfolk.sch.uk/home/students/revision/
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IN THIS SECTION
REVISION
GCSE revision guide
How to revise for A-levels
Y13 revision evening presentation
KS4 revision evening presentation
Y10 Welcome Event
Revision skills
Skills mastery
Supporting Your Child
Leaders
Uniform
Examination Information
Future Pathways
Revision
Canteen
Results Day

English Department
Exam Timetable

AQA

English Literature		English Language	
Paper 1 40%	**Paper 2** 60%	**Paper 1**	**Paper 2**
Shakespeare & The 19th Century Novel - Macbeth - A Christmas Carol / Jekyll and Hyde	**Modern Texts & Poetry** - An Inspector Calls - Power & Conflict - Unseen Poetry	**Explorations in Creative Reading and Writing** Fiction Text	**Writers' Viewpoints and Perspectives** Non-Fiction Texts
1hr 45 mins	2hr 15 mins	1hr 45 mins	1hr 45 mins
12th May (AM)	20th May (AM)	23rd May (AM)	6th June(AM)

English Department
Year 11 Revision Evening

English Language

Paper 1

Explorations in Creative Reading and Writing

Fiction

1hr 45 mins

Section A	Reading
Q1	Comprehension
Q2	Language analysis
Q3	Structure analysis
Q4	Evaluation
Section B	**Writing**
Q5	**Description or Narrative**

Paper 2

Writers' Viewpoints and Perspectives

Non-Fiction

1hr 45 mins

Comparative paper with 2 sources to read

Section A	Reading
Q1	Comprehension
Q2	Comparative Summary
Q3	Language analysis
Q4	Comparing writers Viewpoints and Perspectives
Section B	**Writing**
Q5	**Opinion Writing**

English Department
Year 11 Revision Evening

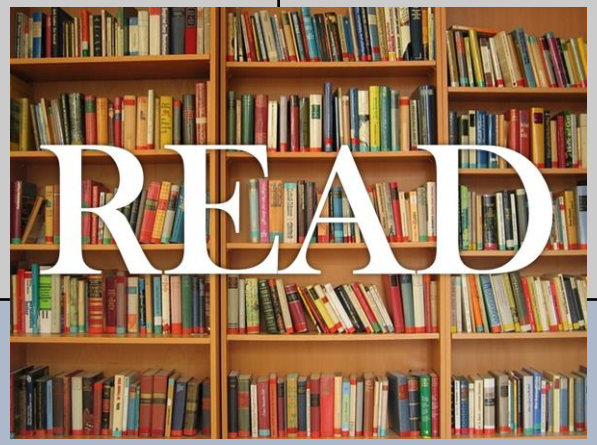
English Language – How can I revise?

Paper 1

C20th or C21st

- Novel extracts
- Short stories

Focus on openings, endings, descriptive parts, settings, and characters.



Paper 2

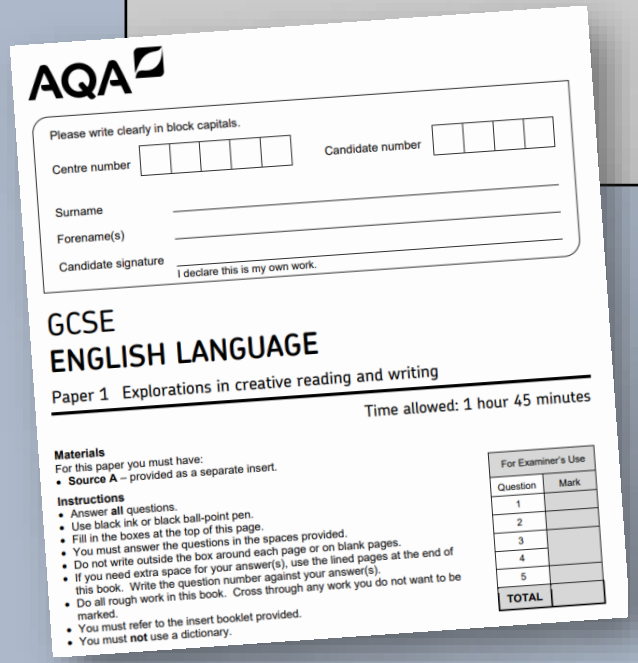
C19th + C20 or C21st

- Letters
- Journals
- Diary entries
- Speeches
- Articles
- Travel writing

English Department
Year 11 Revision Evening

English Language – How can I revise?

PAST PAPERS!


AQA

Please write clearly in block capitals.

Centre number | Candidate number

Surname

Forename(s)

Candidate signature

I declare this is my own work.

GCSE
ENGLISH LANGUAGE

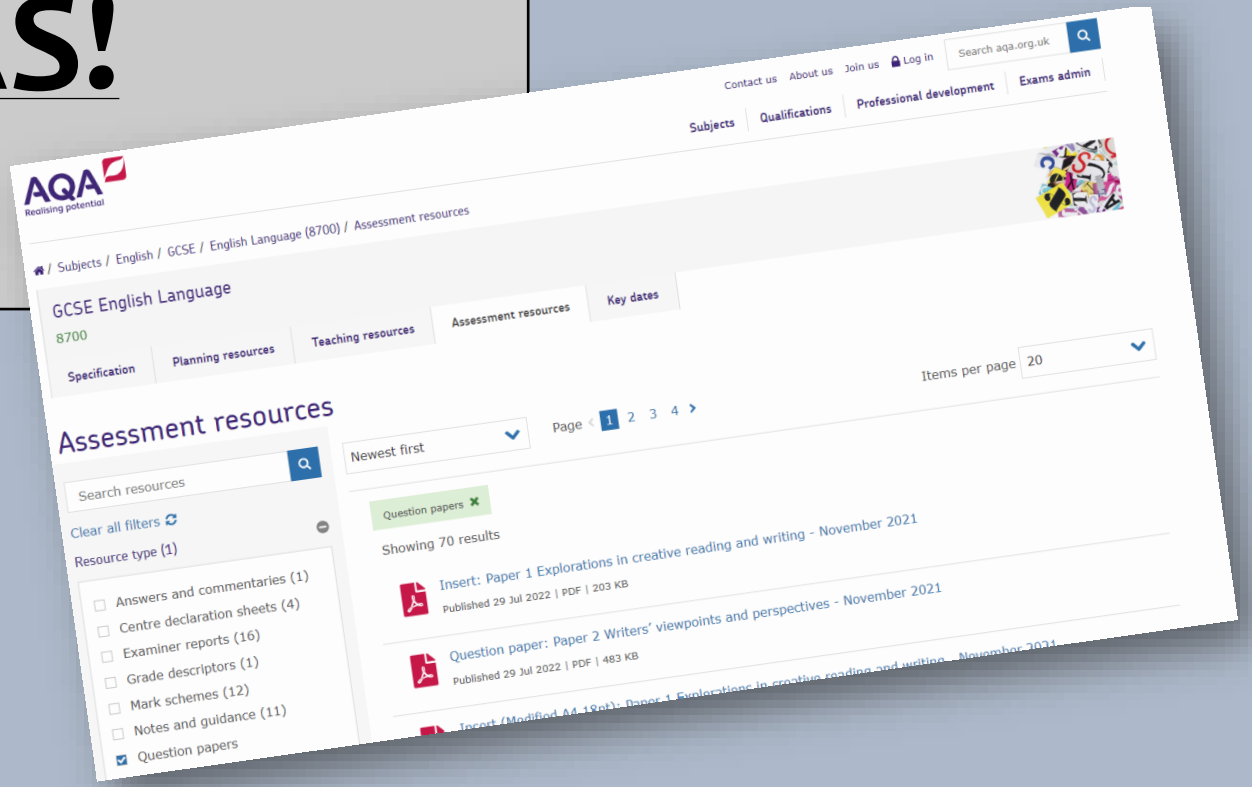
Paper 1 Explorations in creative reading and writing

Time allowed: 1 hour 45 minutes

Materials
For this paper you must have:
- **Source A** – provided as a separate insert.

Instructions
- Answer **all** questions.
- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- You must answer the questions in the spaces provided.
- You must answer the box around each page or on blank pages.
- Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.
- You must refer to the insert booklet provided.
- You must **not** use a dictionary.

For Examiner's Use	
Question	Mark
1	
2	
3	
4	
5	
TOTAL	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/ Subjects / English / GCSE / English Language (8700) / Assessment resources

GCSE English Language
8700

Specification | Planning resources | Teaching resources | Assessment resources | Key dates

Assessment resources

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- Answers and commentaries (1)
- Centre declaration sheets (4)
- Examiner reports (16)
- Grade descriptors (1)
- Mark schemes (12)
- Notes and guidance (11)
- Question papers

Question papers

Showing 70 results

Insert: Paper 1 Explorations in creative reading and writing - November 2021
Published 29 Jul 2022 | PDF | 203 KB

Question paper: Paper 2 Writers' viewpoints and perspectives - November 2021
Published 29 Jul 2022 | PDF | 483 KB

Available on the AQA website.

Pupils can ask their English teacher if unsure.

English Department
Year 11 Revision Evening

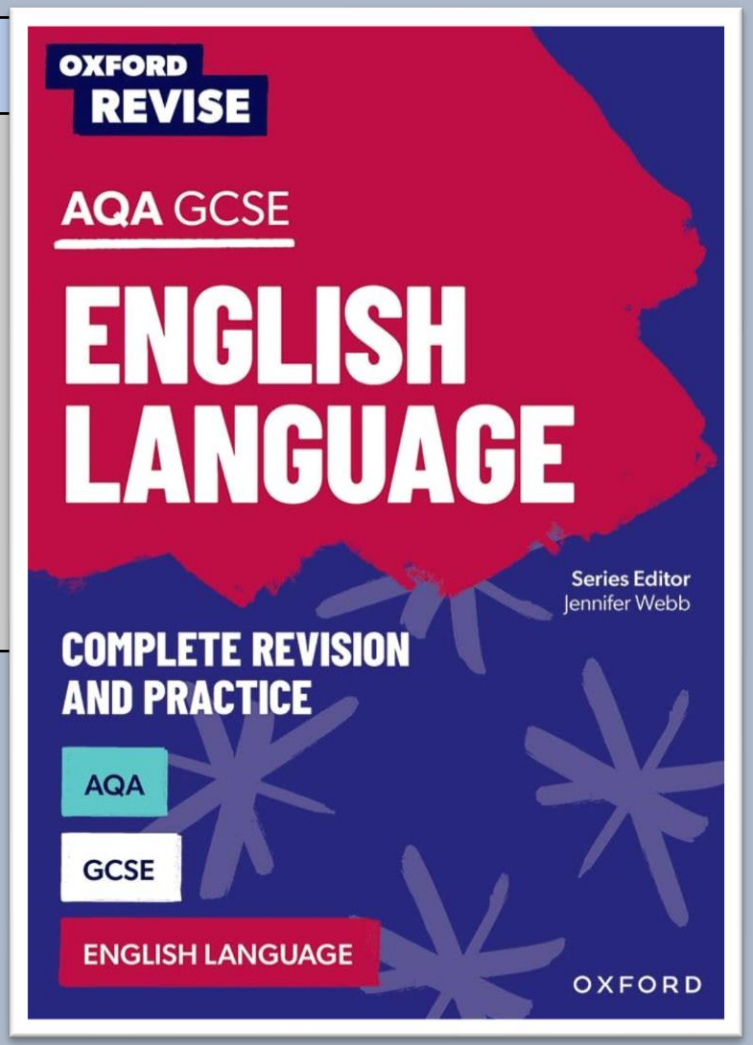
English Language – How can I revise?

Revision Guide

You can order a copy of this excellent publication – Oxford Revise AQA GCSE English Language – **via Wisepay**. Order by **14.02.25**

RRP £10.99

School-based price £5.50

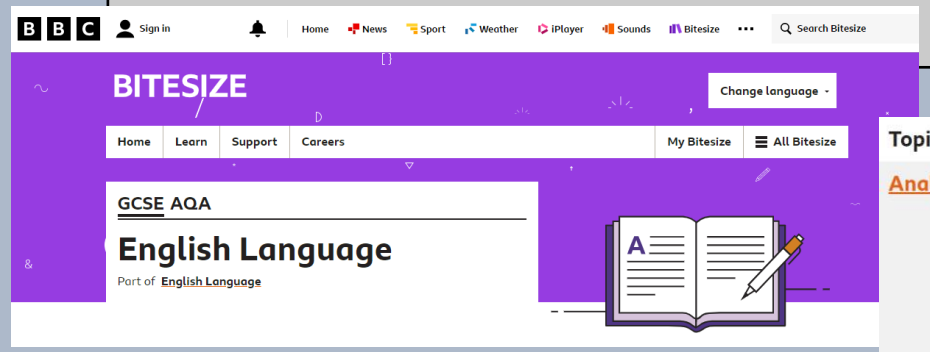


Click here for a look inside.

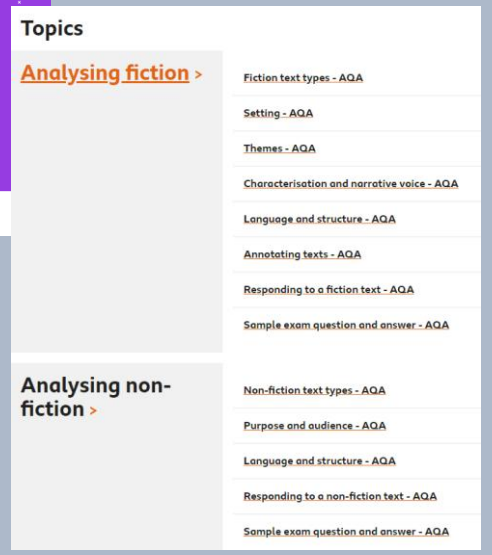
English Department
Year 11 Revision Evening

English Language – How can I revise?

Websites



Bitesize has a great range of reading, videos and quizzes on each language paper.



SENECA

Class teachers can allocate topics to pupils, or they can log in and search for relevant quizzes.

English Department
Year 11 Revision Evening

English Literature

Paper 1
Shakespeare & The 19th Century Novel

Section A	
Macbeth	Extract based essay question (closed book)
Section B	
A Christmas Carol / Jekyll & Hyde	Extract based essay question (closed book)

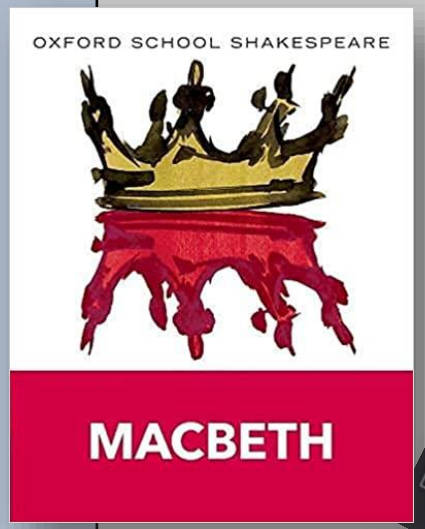
Paper 2
Modern Texts & Poetry

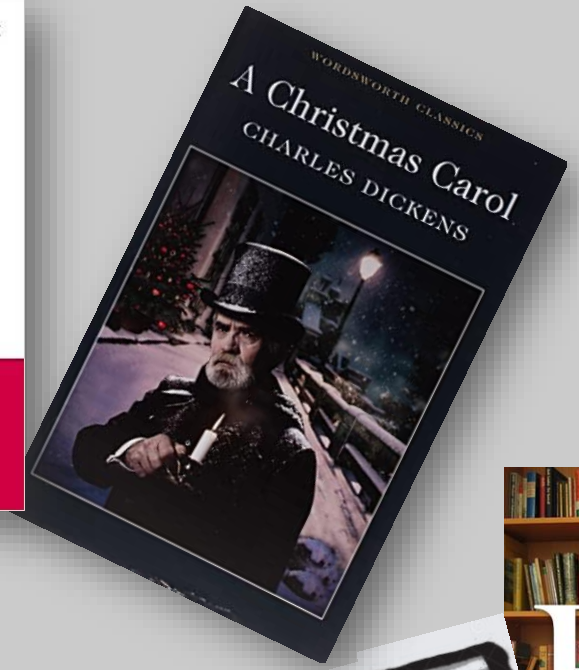
Section A	
An Inspector Calls	Essay question no extract (closed book)
Section B	
Power & Conflict Poetry	Comparative essay question exploring a theme in named poem (provided) and one other (not)
Section C	
Unseen poetry	Essay question on theme (poem provided)
Unseen comparison	Essay comparing 2 unseen poems

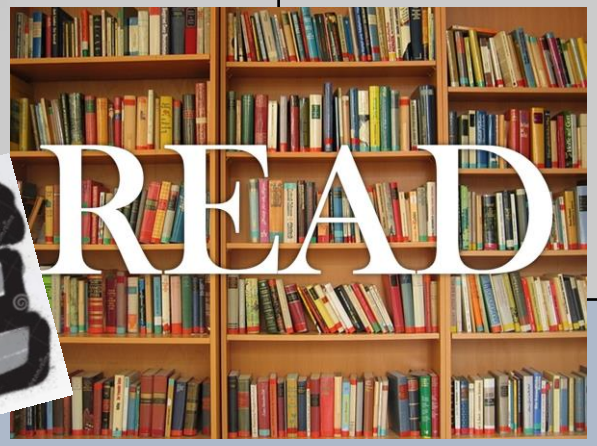
English Department
Year 11 Revision Evening

English Literature – How can I revise?

Paper 1

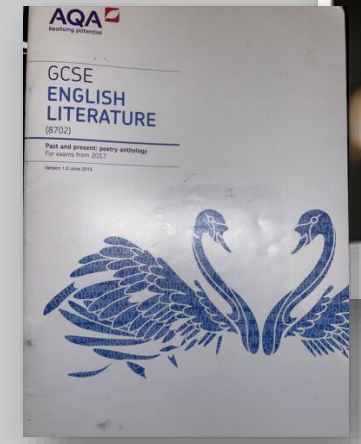


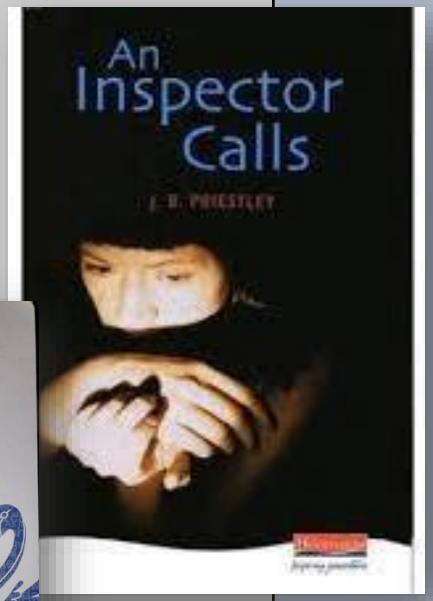




Paper 2

- Unseen poems

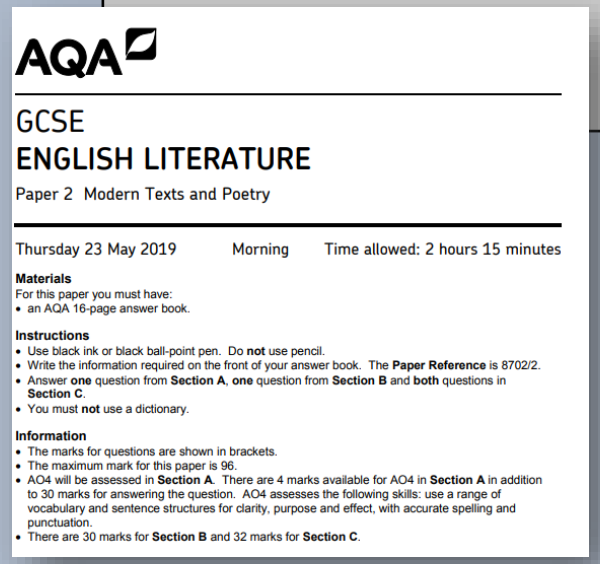




English Department
Year 11 Revision Evening

English Literature – How can I revise?

PAST PAPERS!



AQA

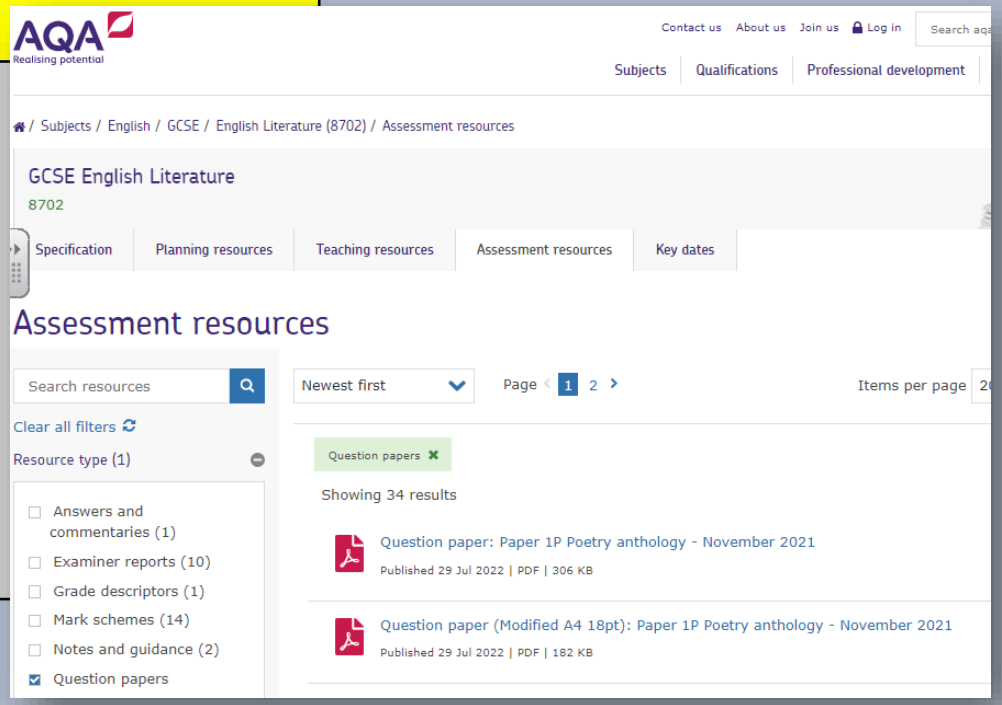
GCSE
ENGLISH LITERATURE
Paper 2 Modern Texts and Poetry

Thursday 23 May 2019 Morning Time allowed: 2 hours 15 minutes

Materials
For this paper you must have:
- an AQA 16-page answer book.

Instructions
- Use black ink or black ball-point pen. Do **not** use pencil.
- Write the information required on the front of your answer book. The **Paper Reference** is 8702/2.
- Answer **one** question from **Section A**, **one** question from **Section B** and **both** questions in **Section C**.
- You must **not** use a dictionary.

Information
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 96.
- AO4 will be assessed in **Section A**. There are 4 marks available for AO4 in **Section A** in addition to 30 marks for answering the question. AO4 assesses the following skills: use a range of vocabulary and sentence structures for clarity, purpose and effect, with accurate spelling and punctuation.
- There are 30 marks for **Section B** and 32 marks for **Section C**.



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GCSE English Literature
8702

Specification | Planning resources | Teaching resources | Assessment resources | Key dates

Assessment resources

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- Mark schemes (14)
- Notes and guidance (2)
- Question papers

Question papers

Showing 34 results

Question paper: Paper 1P Poetry anthology - November 2021
Published 29 Jul 2022 | PDF | 306 KB

Question paper (Modified A4 18pt): Paper 1P Poetry anthology - November 2021
Published 29 Jul 2022 | PDF | 182 KB

Available on the AQA website.

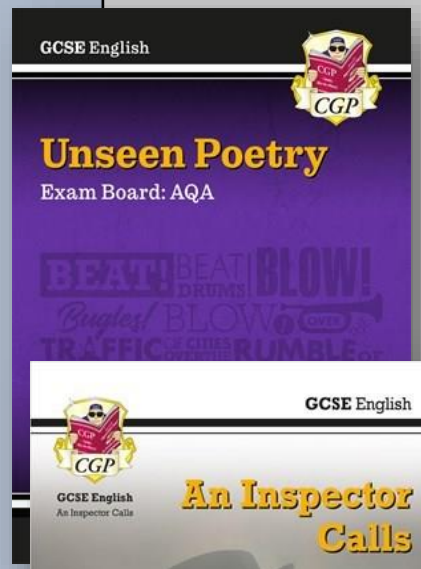
Pupils can ask their English teacher if unsure.

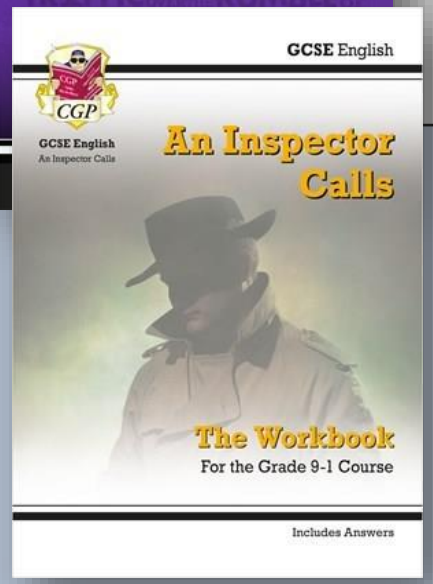
CAUTION!
The 2022 papers were structured differently due to COVID.

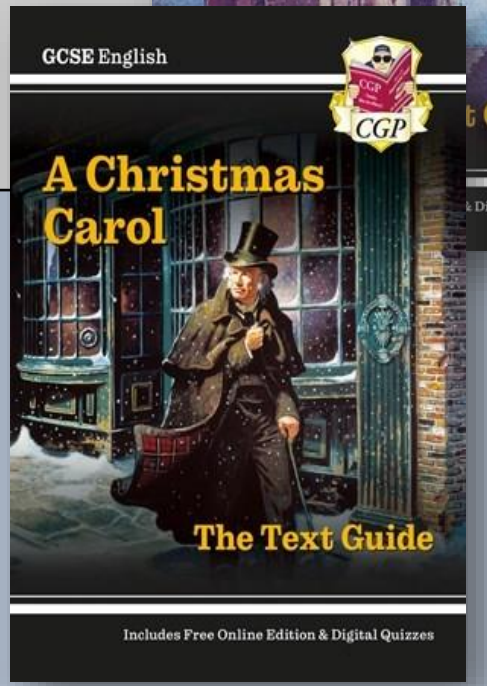
English Department
Year 11 Revision Evening

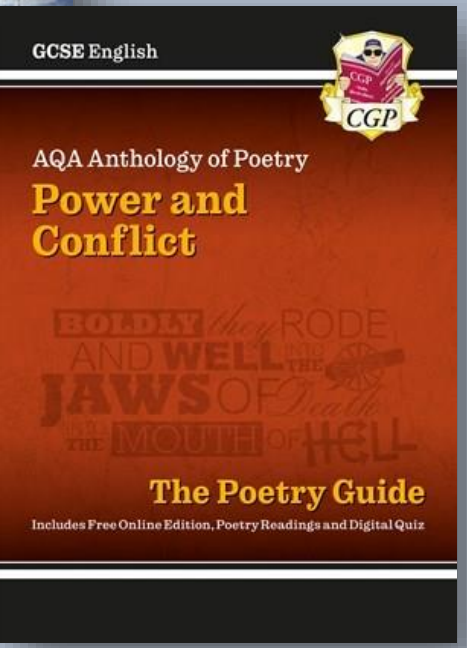
English Literature – How can I revise?

Revision Guides









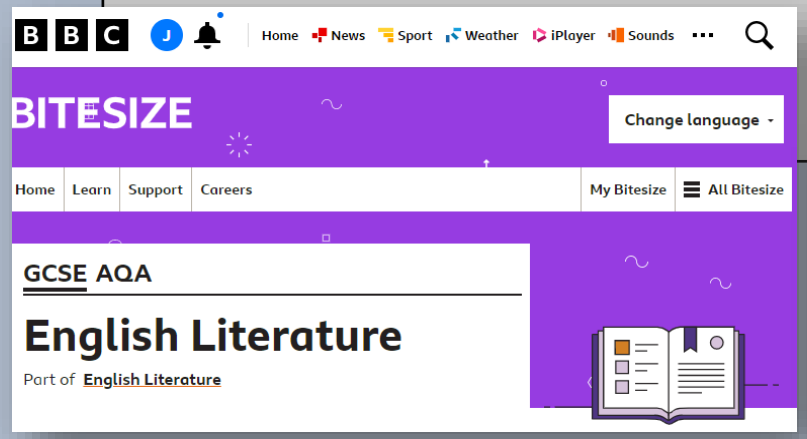
CGP have a great range at excellent value.

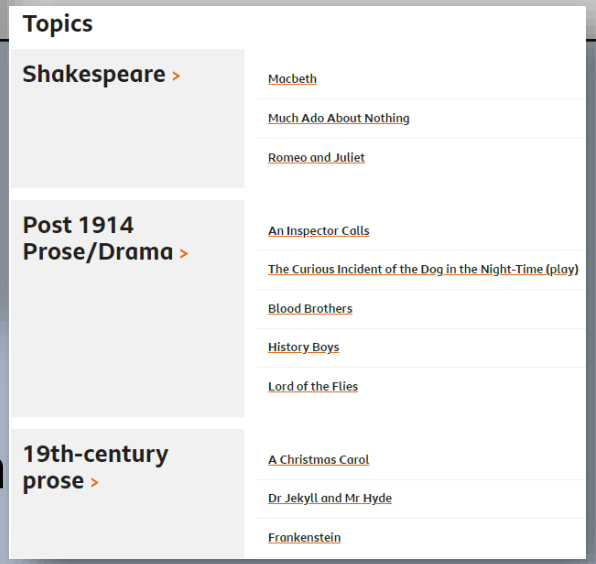
Average cost £5-7 per book.

English Department
Year 11 Revision Evening

English Literature – How can I revise?

Websites





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Class teachers can allocate topics to pupils, or they can log in and search for relevant quizzes.

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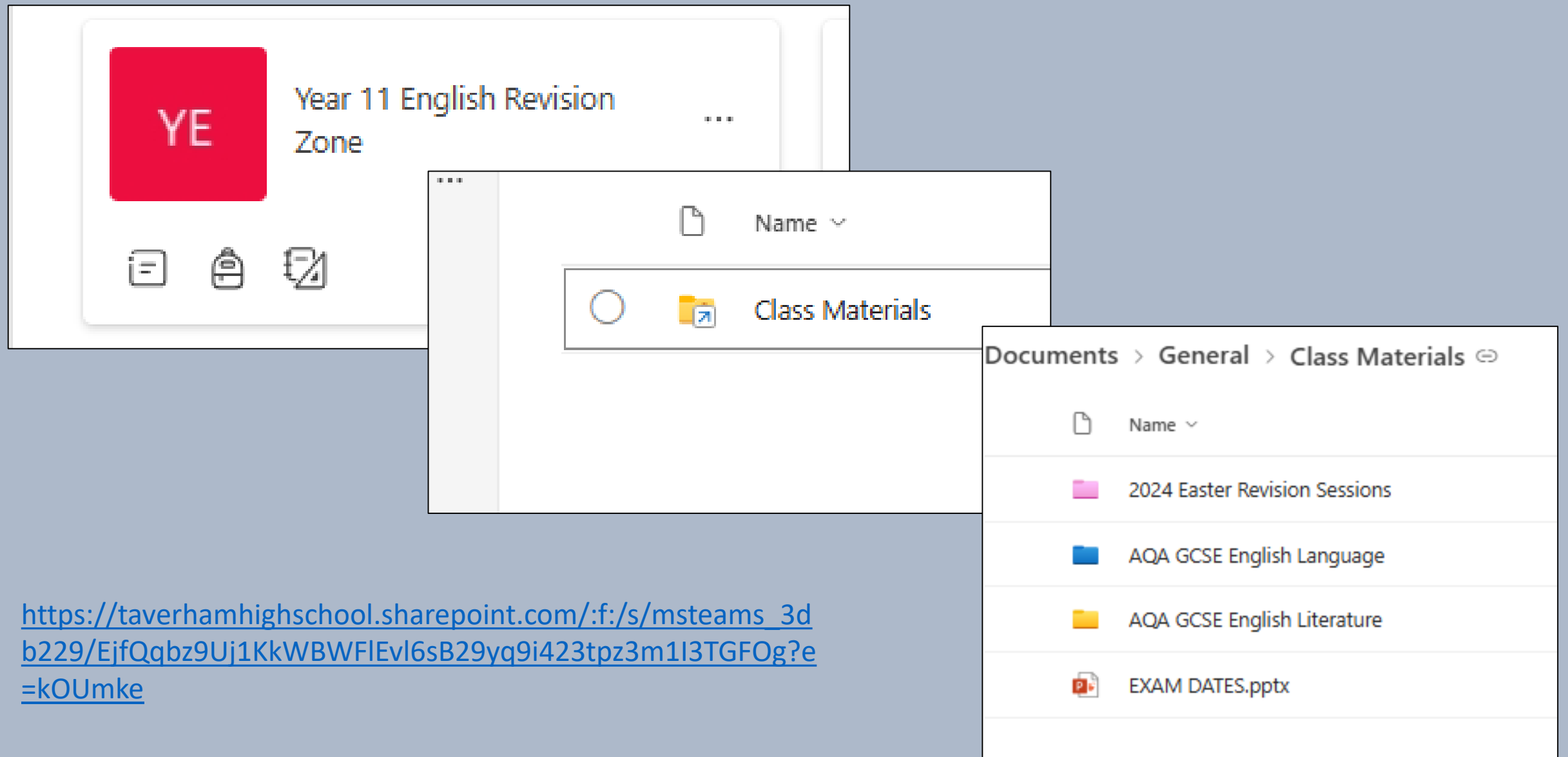
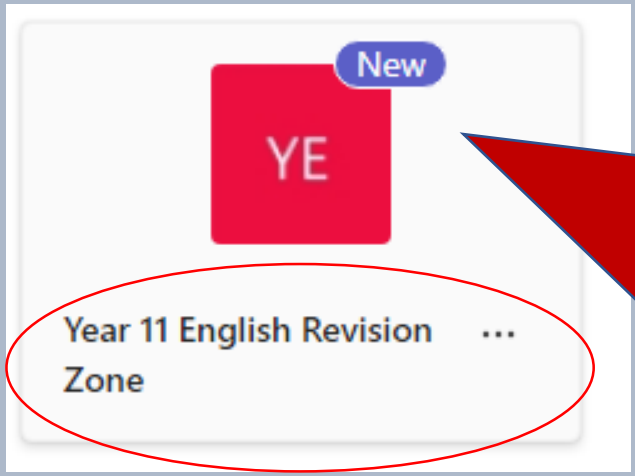
Year 11 Revision Evening



https://taverhamhighschool.sharepoint.com/:f:/s/msteams_3db229/EjfQqbz9Uj1KkWBWFlEvl6sB29yq9i423tpz3m1I3TGFOg?e=kOUmke

English Department
Year 11 Revision Evening



New TEAMS area specifically for English Revision!

Any further questions, please get in touch:

c.greenacre@taverhamhigh.org
m.hollis@taverhamhigh.org

YouTube:

Mr Bruff -
https://www.youtube.com/channel/UCM2vdqz-7e4HAuzhpFuRY8w

Famous Speeches -
– watch and analyse Barack Obama, Emma Watson, Maya Angelou, Greta Thunberg, Martin Luther King etc.

Mr Sallis -
https://www.youtube.com/@MrSallesTeachesEnglish

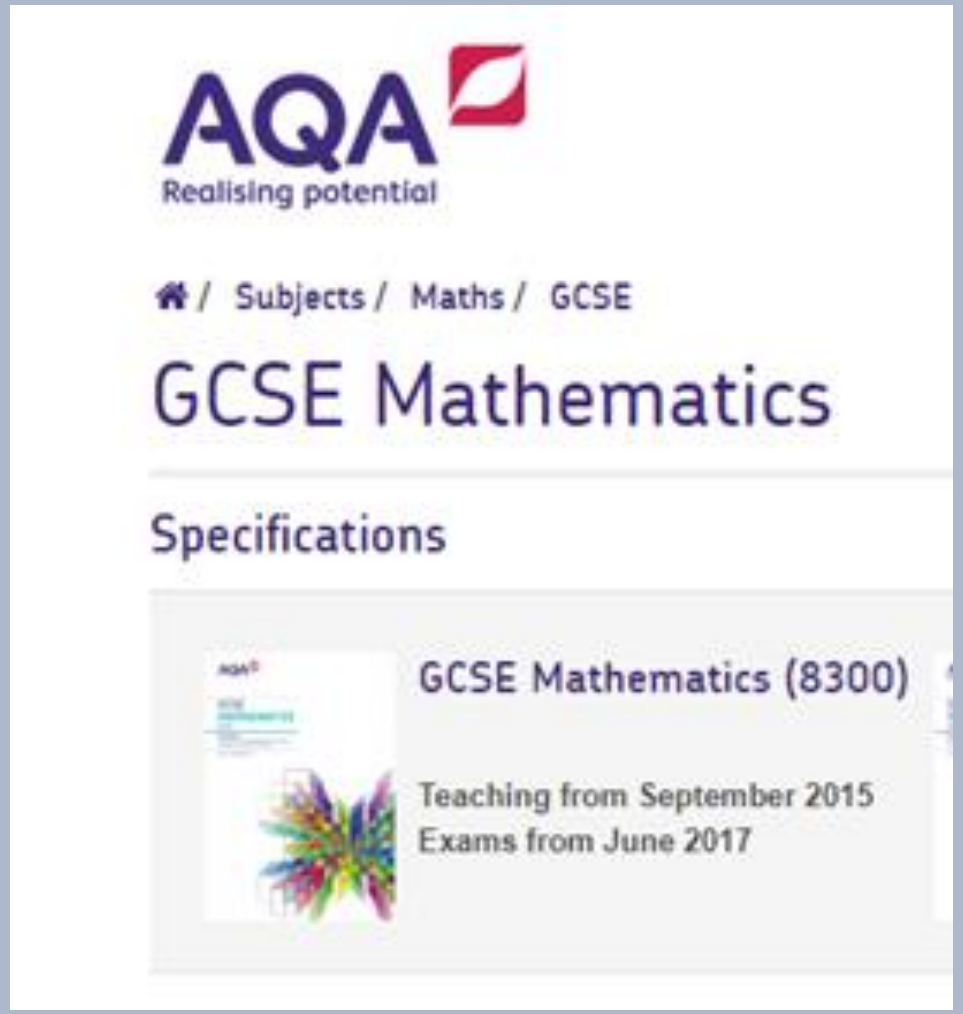
Royal Shakespeare Company -
https://www.youtube.com/watch?v=jPa2rKXDQP0&list=PLolOYEpIfPsloAacNeATvlaQKlk7Q2lyf

Maths GCSE

Mr Robinson, Head of KS4 Maths

GCSE - Mathematics

- Exam board AQA
- Foundation Grades 1 – 5
- Higher Grades 4 – 9
- 3 papers each 1 hour 30mins
- Paper 1 Non calculator
- Papers 2 & 3 Calculator allowed



Changes from Summer 2023.

- There will be between 0 and 4 multiple choice questions in each paper (there used to be 8). They are only worth 1 mark each.

- There will be a formula sheet issued with every exam paper. Familiarise yourself with this before the exam.

- More focus on fewer words and ease of reading. AQA will make sure that they use the minimum words that convey the necessary meaning across all our questions.

AQA

GCSE
MATHEMATICS HIGHER TIER

Formulae Sheet

Insert

Perimeter, area and volume

Where a and b are the lengths of the parallel sides and h 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 $= 2\pi r = \pi d$

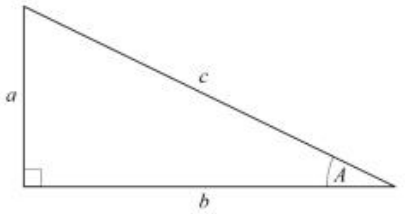
Area of a circle $= \pi r^2$

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

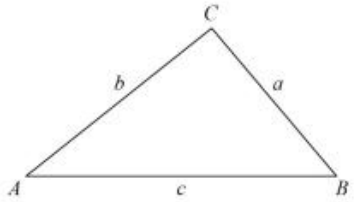


In any right-angled triangle where a, b and c are the length of the sides and c is the hypotenuse:

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

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

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



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 $= \frac{1}{2}ab\sin C$

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:

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

Probability

Where $\mathrm{P}(A)$ is the probability of outcome A and $\mathrm{P}(B)$ is the probability of outcome B:

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

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

AQA

GCSE
MATHEMATICS FOUNDATION TIER

Formulae Sheet

Insert

Perimeter, area and volume

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

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

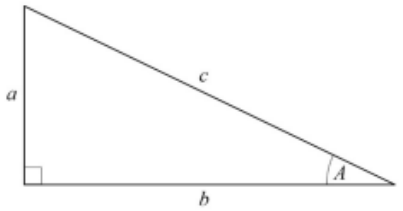
Volume of a prism = area of cross section × length

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:

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

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

Additional formulae

- These formulae are provided within a question where it's required to answer the question:

- Curved surface area of a cone = $\pi \times r \times l$,
  where r is the radius and l is the slant height
- Volume of a cone = $\frac{1}{3} \times \pi \times r^2 \times h$,
  where r is the radius and h is the perpendicular height
- Volume of a pyramid = $\frac{1}{3} \times area\ of\ base \times h$,
  where h is the perpendicular height
- Surface area of a sphere = $4 \times \pi \times r^2$,
  where r is the radius
- Volume of a sphere = $\frac{4}{3} \times \pi \times r^3$,
  where r is the radius
- Final velocity: $v = u + a \times t$, $v^2 = u^2 + 2 \times a \times s$
  Displacement: $s = u \times t + \frac{1}{2} \times a \times t^2$,
  where a is constant acceleration, u is initial velocity, v is final velocity, s is displacement, and t is time.

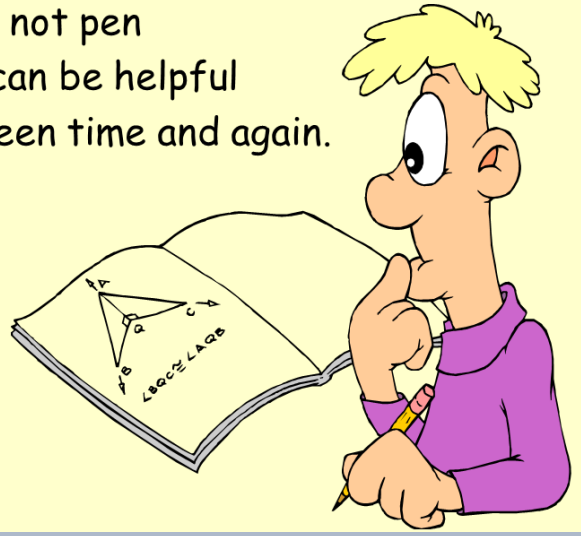
Additional formulae

- These formulae aren't provided within an exam paper, and it's expected that you know them:

- Area of a rectangle = $l \times w$,
  where l is the length and w is the width
- Area of a triangle = $\frac{1}{2} \times b \times h$,
  where b is the base and h is the perpendicular height
- Area of a parallelogram = $b \times h$,
  where b is the base and h is the perpendicular height
- Volume of a cuboid = $l \times w \times h$,
  where l is the length, w is the width and h is the height
- Volume of a prism = $area\ of\ cross\ section \times l$,
  where l is the length
- Volume of a cylinder = $\pi \times r^2 \times h$,
  where r is the radius and h is the height
- Speed = $distance \div time$
- Density = $mass \div volume$
- General form for the equation of a straight line: $y = mx + c$,
  where m is the gradient, c is the y-intercept
- General form for the equation of a circle (Higher tier only):
  $x^2 + y^2 = r^2$, where r is the radius.

You can earn marks for working
If your answer is wrong.
So write down each process
It won't take too long!

Draw diagrams if needed
Use pencil not pen
A sketch can be helpful
And has been time and again.



This question has three marks
Available to you
So make sure your answer
Has three parts too

(ii) Describe fully the **single** transformation represented by the matrix $\begin{pmatrix} 1 & 0 \\ 1 & 1 \end{pmatrix}$.

Answer (c)(ii) ..... [3]

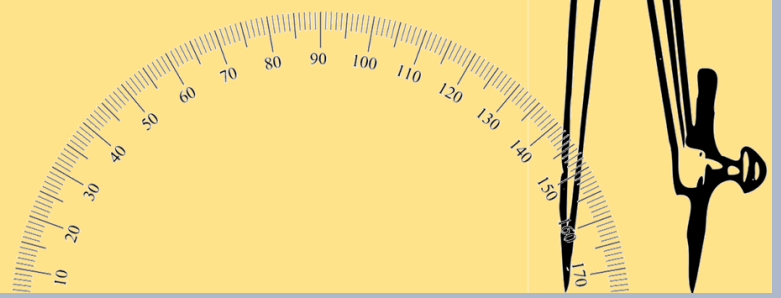
Some questions are real life
Involving measures and more
Answers are not just numbers
Units get the top score

Kilometres per hour

The weight of the kitten is 345 tonnes.

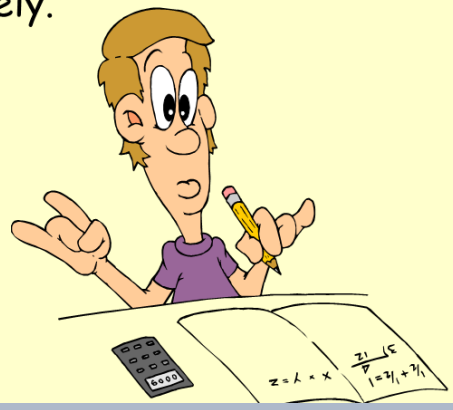
When you do get an answer
You've not finished at all
You should check if it feels right
Not too big or too small.

Get your equipment together
Long before you get there
Protractor, pen, pencils
And a compasses pair



You might finish early
Don't sleep or look around
Go over your answers
There could be
errors to be found

Don't round off your answers
Too prematurely
That will lose you some marks
And confidence surely.



<u>Top tips for productive Maths revision:</u>

Actually doing exercises and solving problems is much better than reading, watching or listening;

Variety is the spice of life! Try some past paper questions then change to working through an online exercise.
Play a mathematical game then make a key facts poster. Keep it interesting;

Get a friend, teacher, parent or answer book to check your work. You don't want to be practising incorrect methods do you?

How to approach worded problems

Read the question

- Understanding the question and what is being asked before writing any working.

Start at the beginning

- Begin thinking about how the numbers interact with each other and write down the required calculations.

Identify key information

- Perhaps by underlining key words or information. Give attention to differing units, as these might need converting.

Write the units in your calculations

- Avoid confusion about what different numbers represent, possibly adding notes to your work to avoid any confusion.

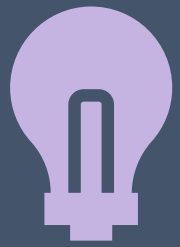
Recall any relevant formulae

- That you might need to apply within the question.

Review your work

- Make sure that your answers make sense in the context offered, and that you have answered all parts of the question. It's easy to forget the goal in multi-step problems.

Tips for during the exam



Read the question

- Take your time to read the question carefully
- Identify key terms to direct your working.

Use time wisely

- Each mark roughly equates to 1 minute. Aim to spend about 2 minutes on questions worth 2 marks.
  Use ‘banked’ time to work through harder questions.

Show your working

- Write down all the steps in your work, including work you used a calculator for.
  Marks can be awarded for correct methods, even if you don’t get to the correct answer.

Take care with writing

- Make sure that your workings and answers are clear. Only cross out work that you don’t want to be marked when it has been replaced with new work.

Attempt every question

- Write down what you know, even if you don’t get the final answer.
  An educated guess is better than leaving a question blank.

Check your work

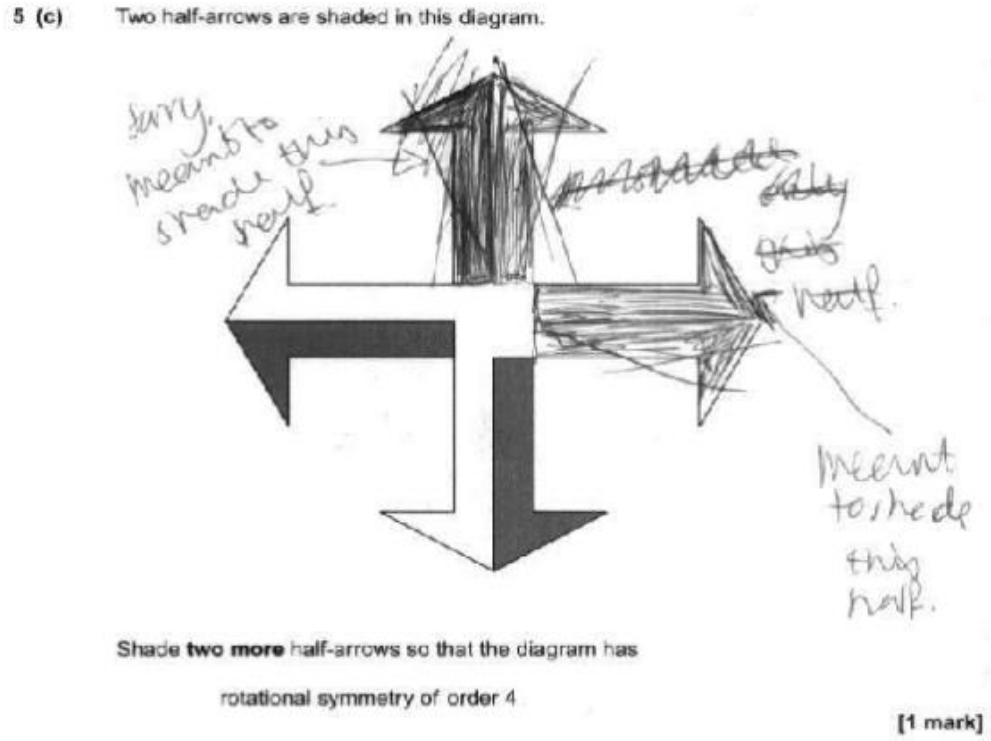
- Make sure that you have answered the question being asked, and that your answer makes sense in context.

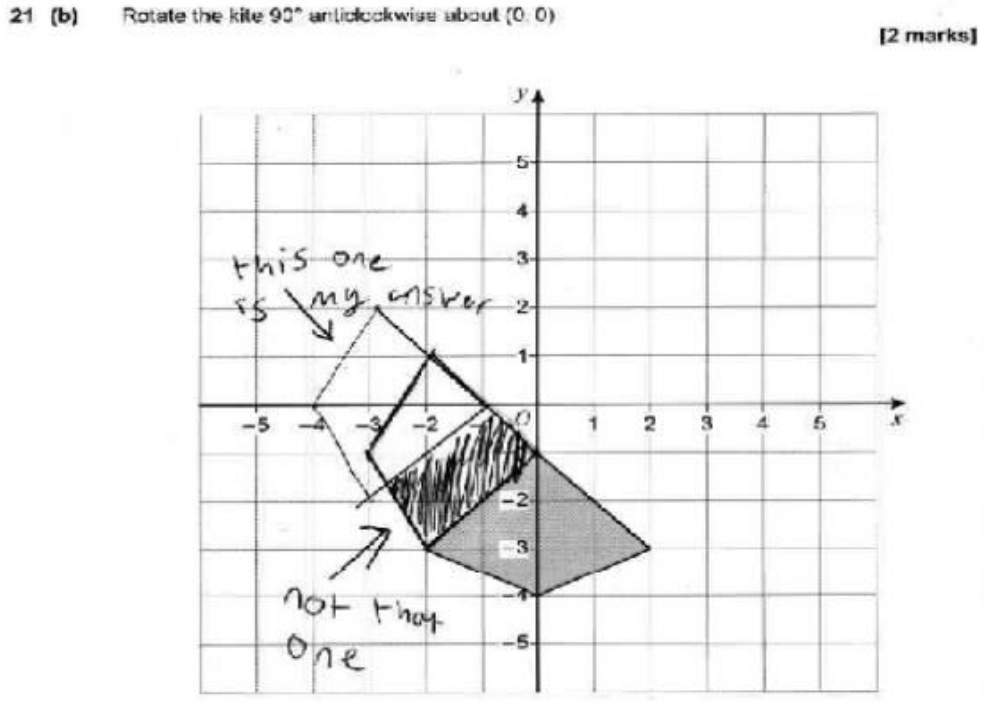
AQA

Insights from the examiners

Present your work clearly –

'scruffy' work is a common cause of lost marks. Draw diagrams in pencil, so you can erase your work if needed





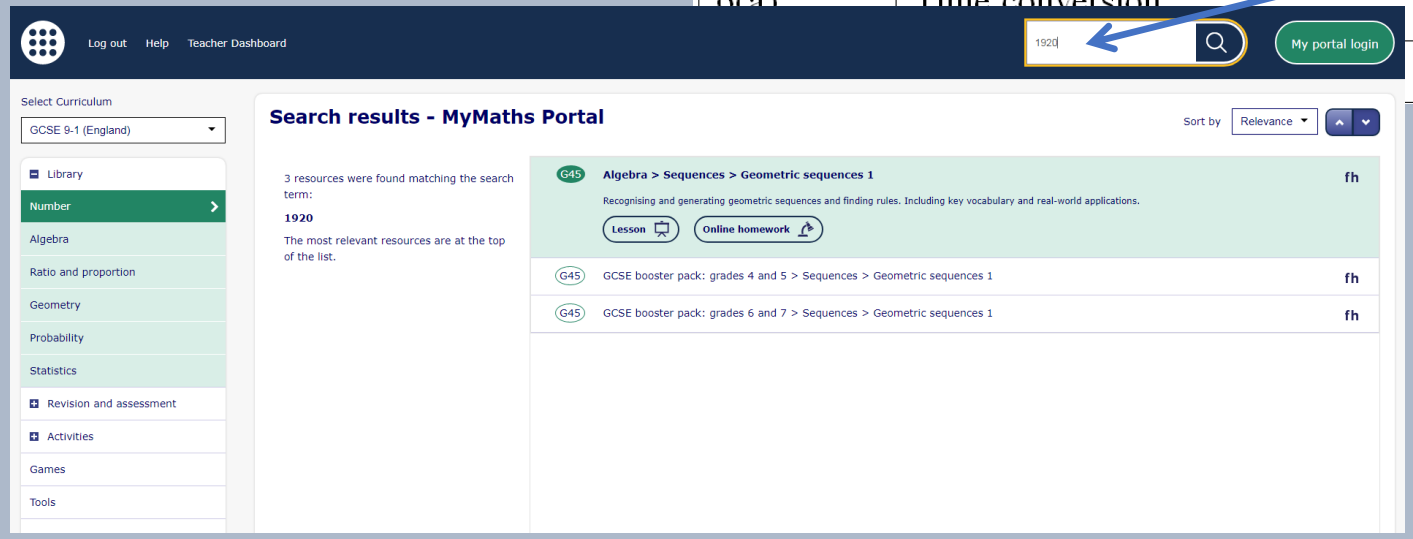
Insights from the examiners

- **Check your work often** –
  Basic calculation errors are common, and you wouldn't normally make them
- **Use a calculator when you can** –
  Marks are often lost through inaccurate calculations in papers 2 and 3
- **Use the formulae sheet** –
  Incorrectly recalling a provided formula will result in marks being lost
- **Begin questions by writing down what you can** –
  Longer questions tend to result in more 'non-attempts', but you could gain some marks by writing down what you know about the question.

- Assessment feedback Sheets

Students should have an assessment feedback sheet stuck in their books after every assessment they sit in Year 10 and 11. This is used to identify problematic topics and areas of weakness which require further practice.

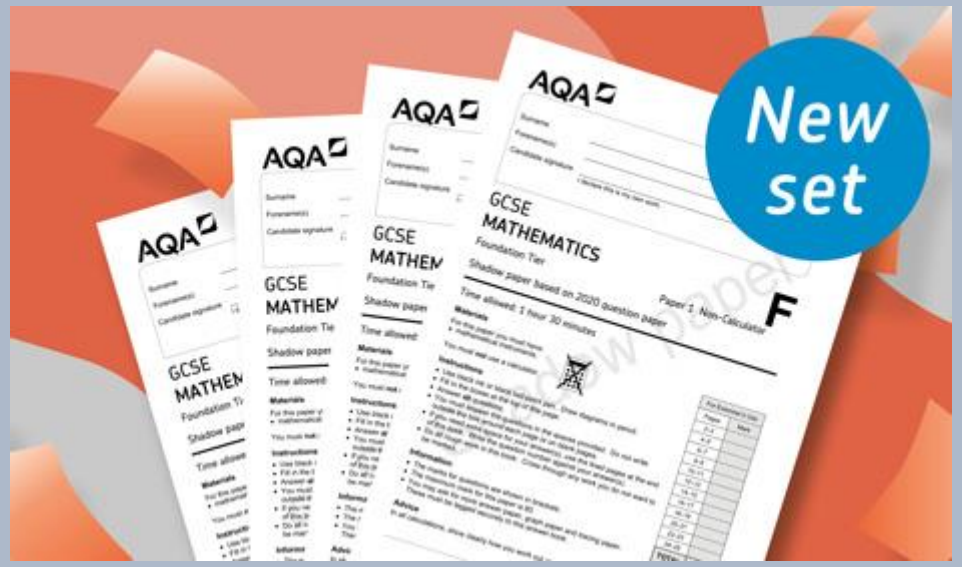
Question	Mathematical Skill	Marks	All	Some	None	Next Steps MyMaths
1	Range	1				1203
2	Place value	1				1931
3	Negative numbers	1				1068,1069
4	Conversion	1				1061
5	Ratio of areas	2				1052
6(a)	Time conversion	2				1123
		2				1123



- GCSE Past Papers

Students have access on Teams to GCSE past papers.

Students will also be given a number of past papers by their class teacher.



11 (a) A sequence starts 5 13 21 29

Circle the expression for the nth term.

$8 - 3n$ $8n + 5$ $8n - 3$ $5n + 8$

(1)

(b) The term-to-term rule for a different sequence is

Multiply the previous term by 2 then subtract 5

The second term in this sequence is $2x + 7$

The sum of the first three terms is 57

Work out the value of x.

Answer _____

(4)

(Total 5 marks)

AQA exampro

GCSE MATHEMATICS Name:

Practice Paper Foundation 1 Maximum marks: 80

Non-Calculator Time allowed: 1 hour and 30 minutes

These questions are from past papers covering topics and skills based on the advance information to help you prepare for the exams this summer.

Answer all questions in the spaces provided. You must **not** use a calculator.

Resources

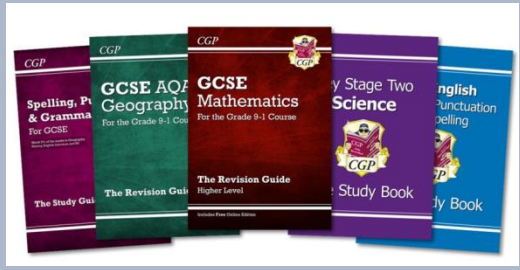
Mymaths.co.uk (Username : taverham Password : maths)

CorbettMaths.com (video demonstrations)

astarlearning.co.uk (video demonstrations)

mathsgenie.co.uk (graded questions by topic)

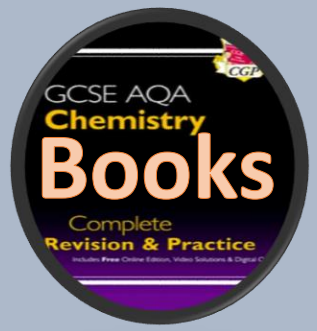
onmaths.com/revisionator (generates graded questions and marks them)



CPG Revision Guides / Practice Workbook / Revision Cards

Science Revision
Top tips

Taverham High School
An 11-18 Academy
Inspire | Empower | Achieve



GCSE Revision

Matthew Hart
Head of Science Faculty
M.hart@taverhamhigh.org

What is your child studying and how are they assessed?

Taverham High School
An 11-18 Academy

Combined Science	Separate (Triple) Science
2 GCSE grades	3 GCSE grades (one for each science)
AQA Trilogy Specification – 2 tiers available	AQA Biology, Chemistry and Physics Specifications 2 tiers available
Exams: 6 papers: Paper 1: Chemistry (Topics C1-C5) 19th May Paper 1: Physics (Topics P1-P4) 22nd May Paper 1: Biology (Topics B1-B4) 13th May Paper 2: Chemistry (Topics C6-C10) 13th June Paper 2: Physics (Topics P5 – P7) 16th June Paper 2: Biology (Topics B5 – B7) 9th June **All papers are 1 hour 15 mins each and have the same weighting**	**Exams: 6 papers** Paper 1: Chemistry (Topics C1-C5) Paper 1: Physics (Topics P1-P4) Paper 1: Biology (Topics B1-B4) Paper 2: Chemistry (Topics C6-C10) Paper 2: Physics (Topics P5 – P8 – extra Space unit) Paper 2: Biology (Topics B5 – B7) **All papers are 1 hour 45 mins each and have the same weighting**

14 Weeks

One of the best ways to…

Know what you need to know

Discover areas of weakness

is to use…

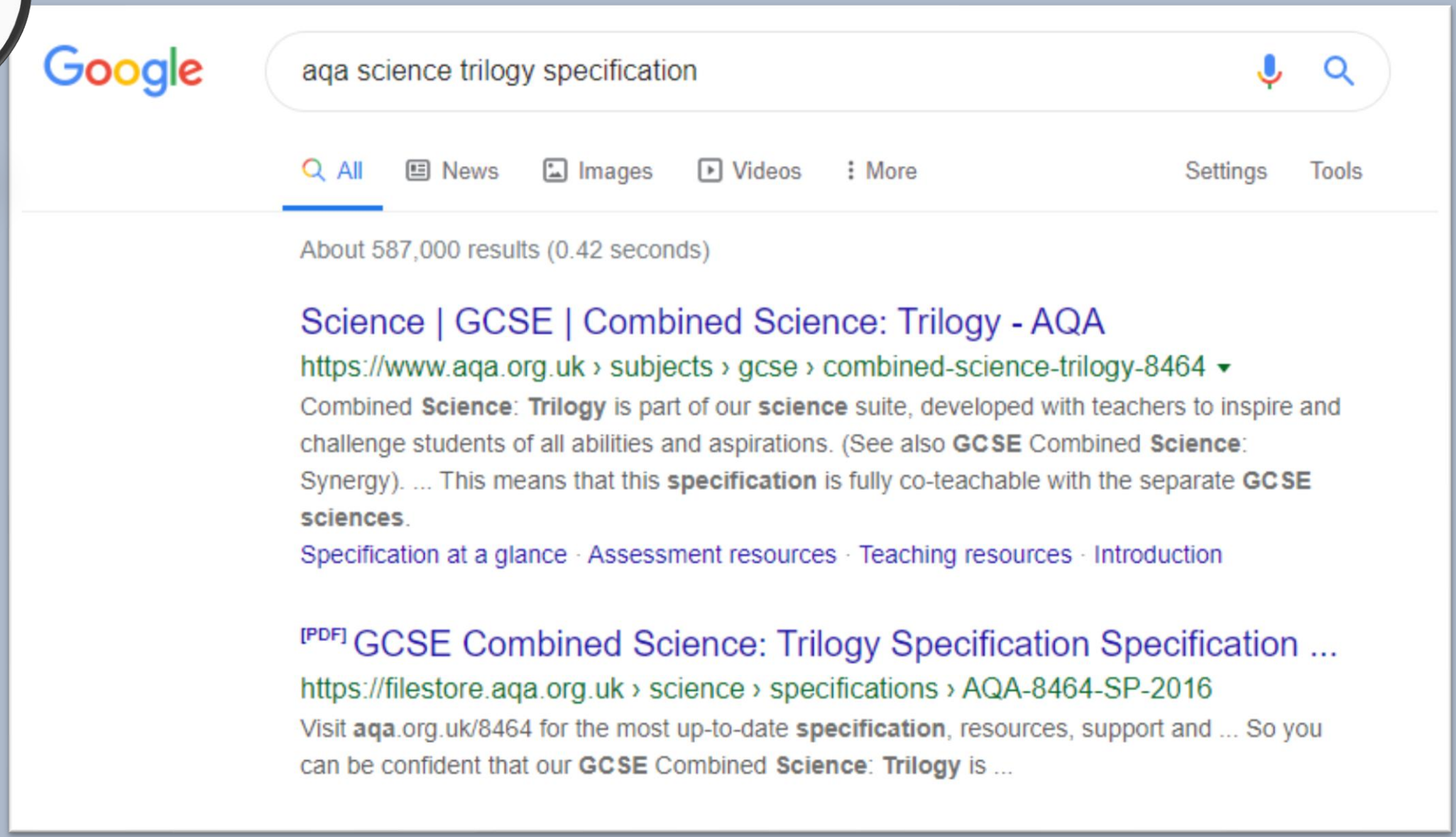
Personalised learning checklists

Specifications

Past paper questions

Science Revision Zone ...

Specifications - Where are they?



Science Revision Zone ...

AQA-8464-SP-2016.PDF (SECURED) - Adobe Acrobat Reader 2017

File Edit View Window Help

Home Tools AQA-8464-SP-201... ×

1 / 198 109%

What do they look like?

AQA
Realising potential

GCSE
COMBINED
SCIENCE:
TRILOGY
(8464)

Specification
For teaching from September 2016 onwards
For exams in 2018 onwards

Version 1.1 04 October 2019

6.1.1.1 Energy stores and systems

Content	Key opportunities for skills development
A system is an object or group of objects. There are changes in the way energy is stored when a system changes. Students should be able to describe all the changes involved in the way energy is stored when a system changes, for common situations. For example: • an object projected upwards • a moving object hitting an obstacle • an object accelerated by a constant force • a vehicle slowing down • bringing water to a boil in an electric kettle. Throughout this section on Energy students should be able to calculate the changes in energy involved when a system is changed by: • heating • work done by forces • work done when a current flows	The link between work done (energy transfer) and current flow in a circuit is covered in Work done and energy transfer (page 146). WS 4.5

Science Revision Zone ...

Learning checklists

AQA Physics (8463) from 2016 Topics P4.1. Energy				
Topic	**Student Checklist**	**R**	**A**	**G**
Chapters 1 and 2 – Conservation and dissipation of energy Energy transfer by heat	Define a system as an object or group of objects and state examples of changes in the way energy is stored in a system			
	Describe how all the energy changes involved in an energy transfer and calculate relative changes in energy when the heat, work done or flow of charge in a system change			
	Use calculations to show on a common scale how energy in a system is distributed			
	Calculate the kinetic energy of an object by recalling and applying the equation: ***[$E_k = \frac{1}{2}mv^2$]***			
	Calculate the amount of elastic potential energy stored in a stretched spring by applying, but not recalling, the equation: ***[$E_e = \frac{1}{2}ke^2$]***			
	Calculate the amount of gravitational potential energy gained by an object raised above ground level by recalling and applying, the equation: ***[$E_e = mgh$]***			
	Calculate the amount of energy stored in or released from a system as its temperature changes by applying, but not recalling, the equation: ***[$\Delta E = mc\Delta\theta$]***			
	Define the term 'specific heat capacity'			
	Required practical 1: *investigation to determine the specific heat capacity of one or more materials.*			
	Define power as the rate at which energy is transferred or the rate at which work is done and the watt as an energy transfer of 1 joule per second			
	Calculate power by recalling and applying the ***equations: [P = E/t & P = W/t]***			
	Explain, using examples, how two systems transferring the same amount of energy can differ in power output due to the time taken			
	State that energy can be transferred usefully, stored or dissipated, but cannot be created or destroyed and so the total energy in a system does not change			
	Explain that only some of the energy in a system is usefully transferred, with the rest 'wasted', giving examples of how this wasted energy can be reduced			
	Explain ways of reducing unwanted energy transfers and the relationship between thermal conductivity and energy transferred			
	Describe how the rate of cooling of a building is affected by the thickness and thermal conductivity of its walls			
	Required practical 2: *investigate the effectiveness of different materials as thermal insulators and the factors that may affect the thermal insulation properties of a material.*			
	Calculate efficiency by recalling and applying the equation: ***[efficiency = useful power output / total power input]***			
	HT ONLY: Suggest and explain ways to increase the efficiency of an intended energy transfer			
Chapter 3 – Energy Resources	List the main renewable and non-renewable energy resources and define what a renewable energy resource is			
	Compare ways that different energy resources are used, including uses in transport, electricity generation and heating			
	Explain why some energy resources are more reliable than others, explaining patterns and trends in their use			
	Evaluate the use of different energy resources, taking into account any ethical and environmental issues which may arise			
	Justify the use of energy resources, with reference to both environmental issues and the limitations imposed by political, social, ethical or economic considerations			

Identify and describe scalar quantities and vector quantities

R	A	G

Science Revision Zone

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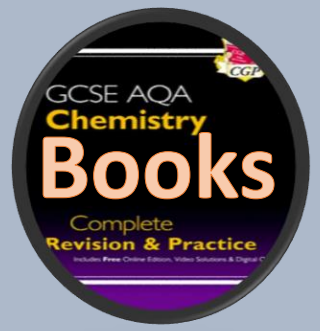
[3 marks]

Do not write outside the box

Act on area of weakness

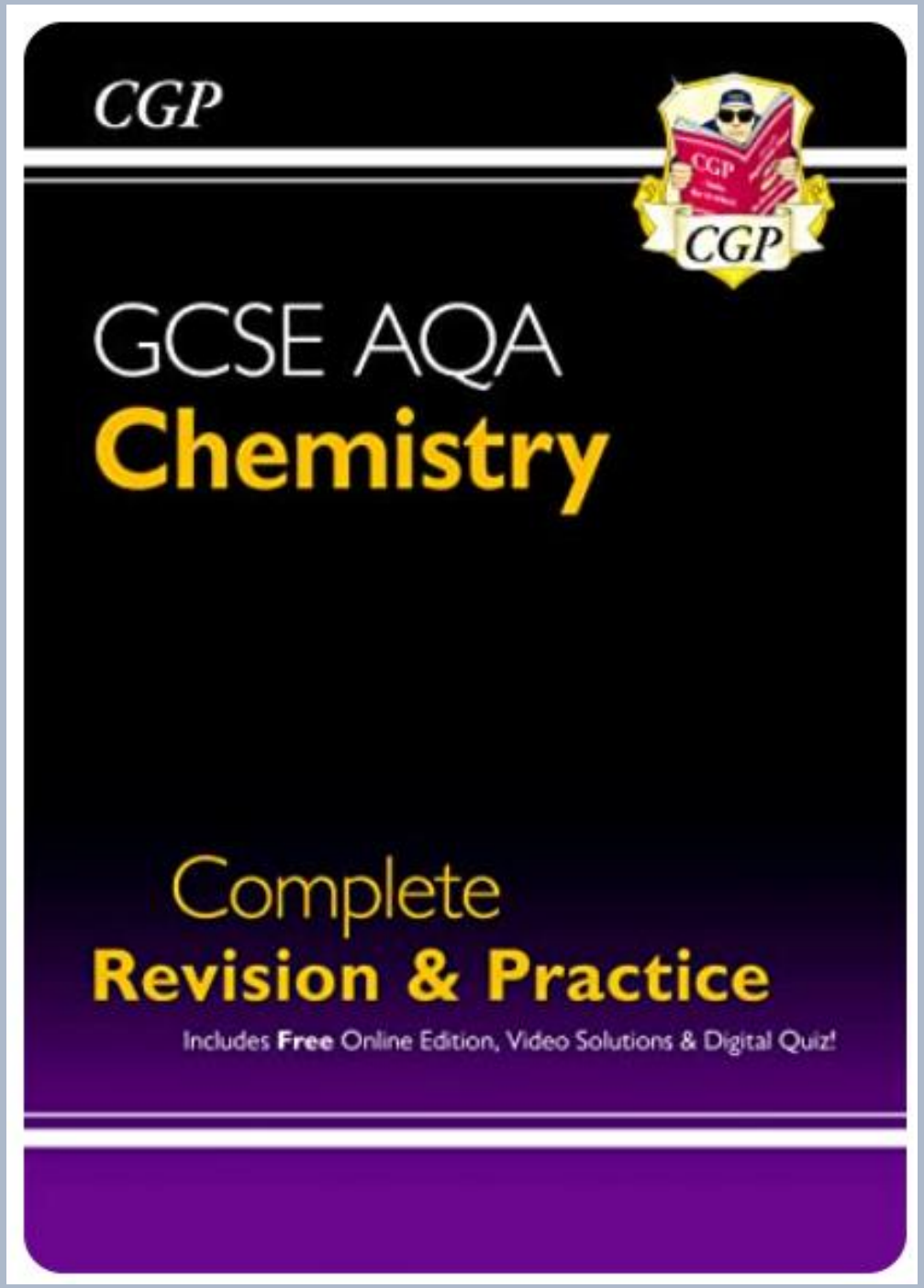
- Revision guides
- Revision knowledge mats
- Revision videos
- Seneca
- BBC Bitesize
- Independence booklets
- Revision sessions
- Contact teachers



Revision guides
Practice books

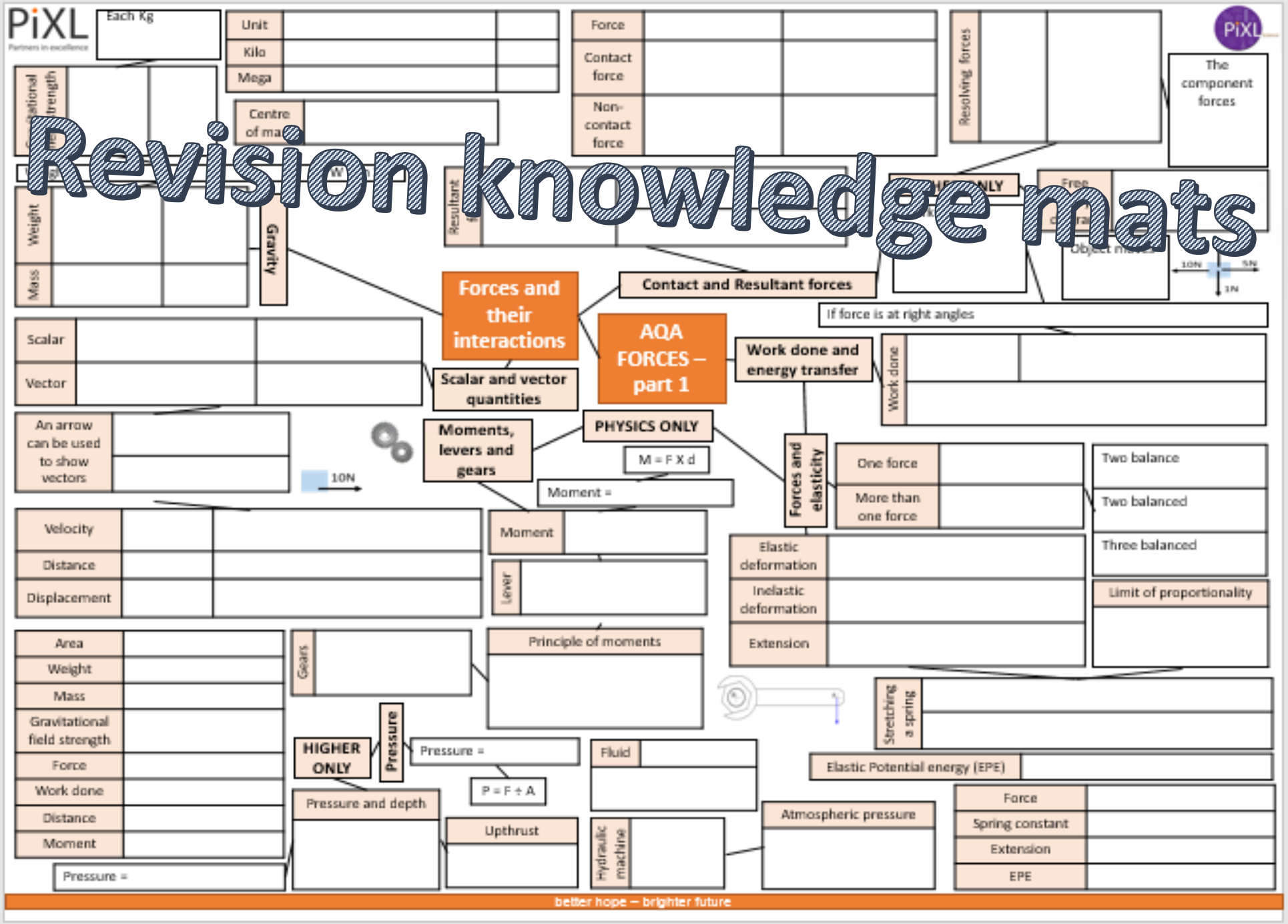
AQA 9-1 exam

Science department sells CGP books at roughly 50% RRP

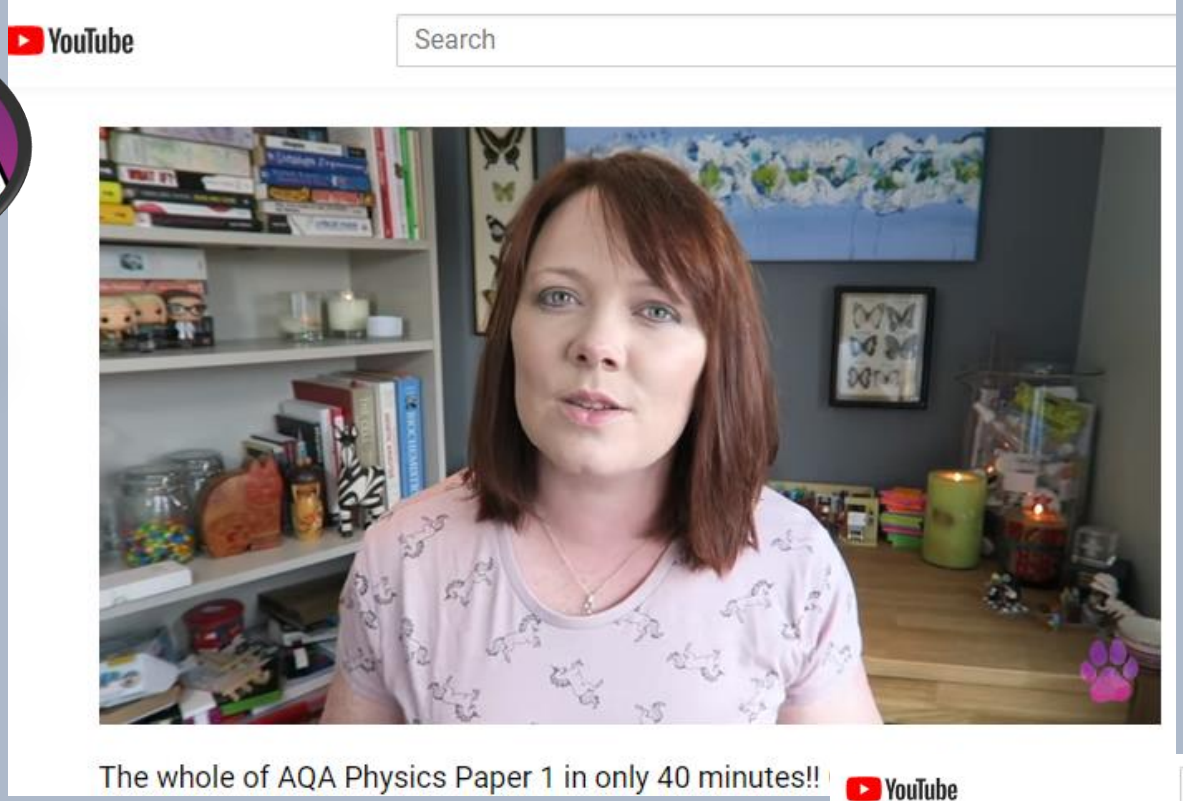


Science Revision Zone ...

Revision knowledge mats

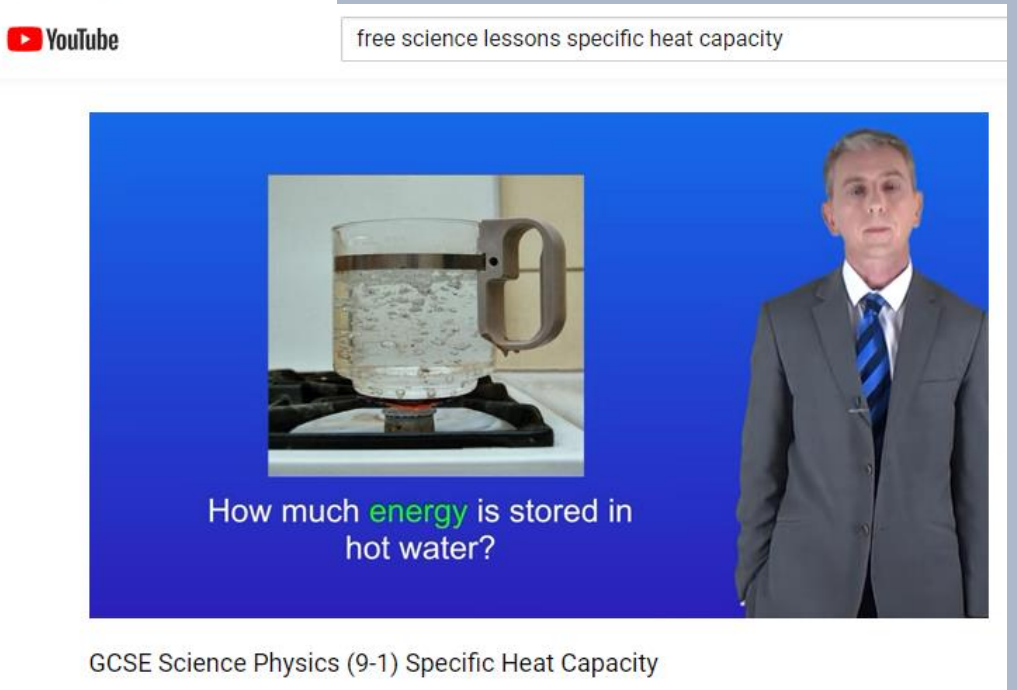


Revision videos



Primrose Kitten

Free Science Lessons



SENECA BETA

Chemistry: AQA GCSE Higher

- 1.1 Atoms & Elements
  - 1.1.1 Elements & Compounds
  - 1.1.2 Chemical Reactions & Equations
  - 1.1.3 Mixtures
  - 1.1.4 Model of the Atom
  - 1.1.5 Atom Size & Number
  - 1.1.6 Isotopes
  - 1.1.7 Periodic Table
  - 1.1.8 Noble Gases & Halogens
  - 1.1.9 Alkali Metals
  - 1.1.10 Transition Metals
- 2 Chemical Bonding
- 3 (

Share Free Teacher CPD Course

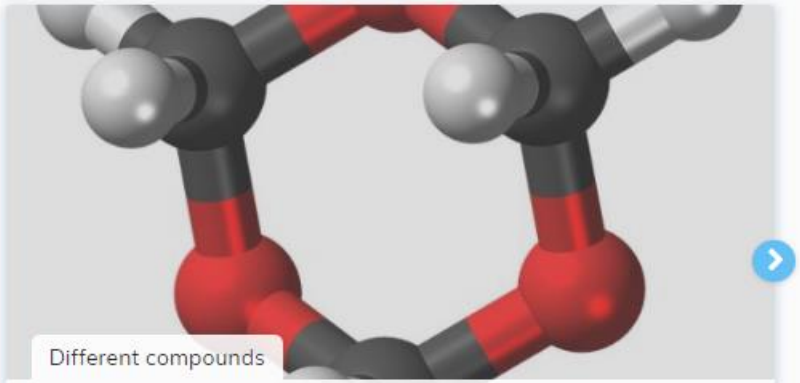
Fe is the chemical symbol for the element iron.

New

1 / 3

Compounds

Atoms of different elements can be combined together to create compounds. Compounds have formulae that are made by combining the chemical symbols of the elements that combine to make them.



Different compounds

- Combining different atoms creates different compounds. There are a lot of combinations that can be created.
- A compound contains at least 2 different elements.

Feedback?

Typing Speed: x1.0

Continue

Seneca - website

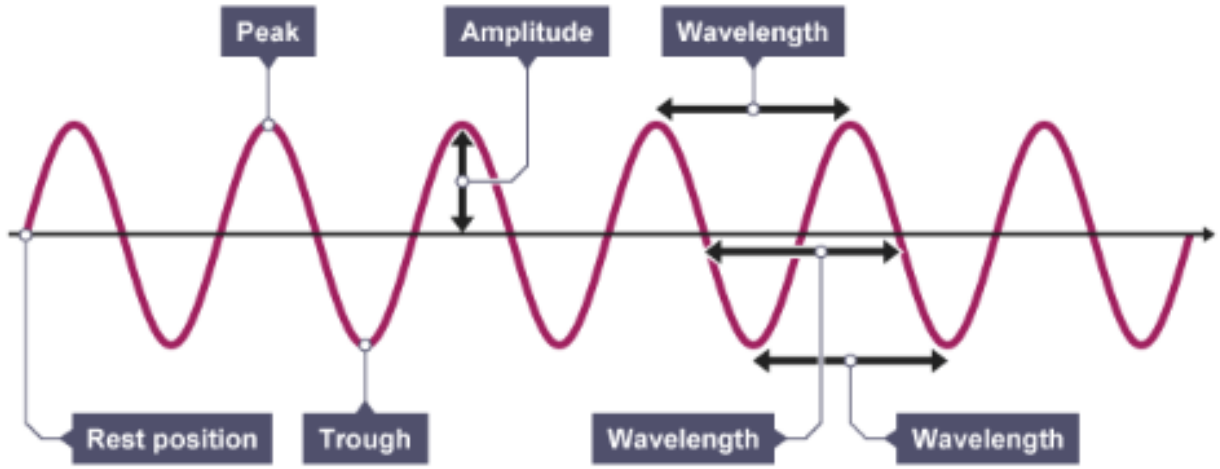
BBC Bitesize

Parts of a wave

Waves are described using the following terms:

- **rest position** - the undisturbed position of particles or fields when they are not vibrating
- **displacement** - the distance that a certain point in the medium has moved from its rest position
- **peak** - the highest point above the rest position
- **trough** - the lowest point below the rest position
- **amplitude** - the maximum displacement of a point of a wave from its rest position
- **wavelength** - distance covered by a full cycle of the wave, usually measured from peak to peak, or trough to trough
- **time period** - the time taken for a full cycle of the wave, usually measured from peak to peak, or trough to trough
- **frequency** - the number of waves passing a point each second

Diagram of a wave



QUESTION:	What is a radioactive substance?
Sources:	Website – 1. https://www.youtube.com/watch?v=V-UtgheMNNU 2. http://www.darvill.clara.net/nucrad/types.htm

1. A radioactive substance contains unstable nuclei that become stable by emitting radiation.
2. There are three main types of radiation – alpha, α, beta, β and gamma, γ.
3. Radioactive decay is random – it cannot be predicted.
4. All radioactive sources emit alpha, beta and gamma radiation.
5. A Geiger counter is used to measure the amount of radioactivity given off by a substance.

The Risks of Radiation Therapy

News article: https://www.cheatsheet.com/health-fitness/these-popular-cancer-treatments-have-the-most-dangerous-side-effects.html/?a=viewall
NHS article: http://www.nhs.uk/Conditions/Radiotherapy/Pages/Introduction.aspx
Discussion article: https://health.usnews.com/health-news/patient-advice/articles/2015/05/22/radiation-evolving-choices-in-cancer-treatment
Real article: http://www.cancerresearchuk.org/about-cancer/cancer-in-general/treatment/radiotherapy/follow-up/long-term-side-effects

Task 1:
You need to produce a 1 page essay on the risks surrounding radiation therapy.

Essay section	Activity
Introduction	What is radiation therapy? What is radiation therapy used to treat?
Describe	Describe how radiation therapy would be conducted using a specific type of tumor, e.g. brain, breast, liver.
Explore	Explore the risk associated with having radiation therapy.
Evaluate	Evaluate whether the benefit outweighs the risk for the patient.

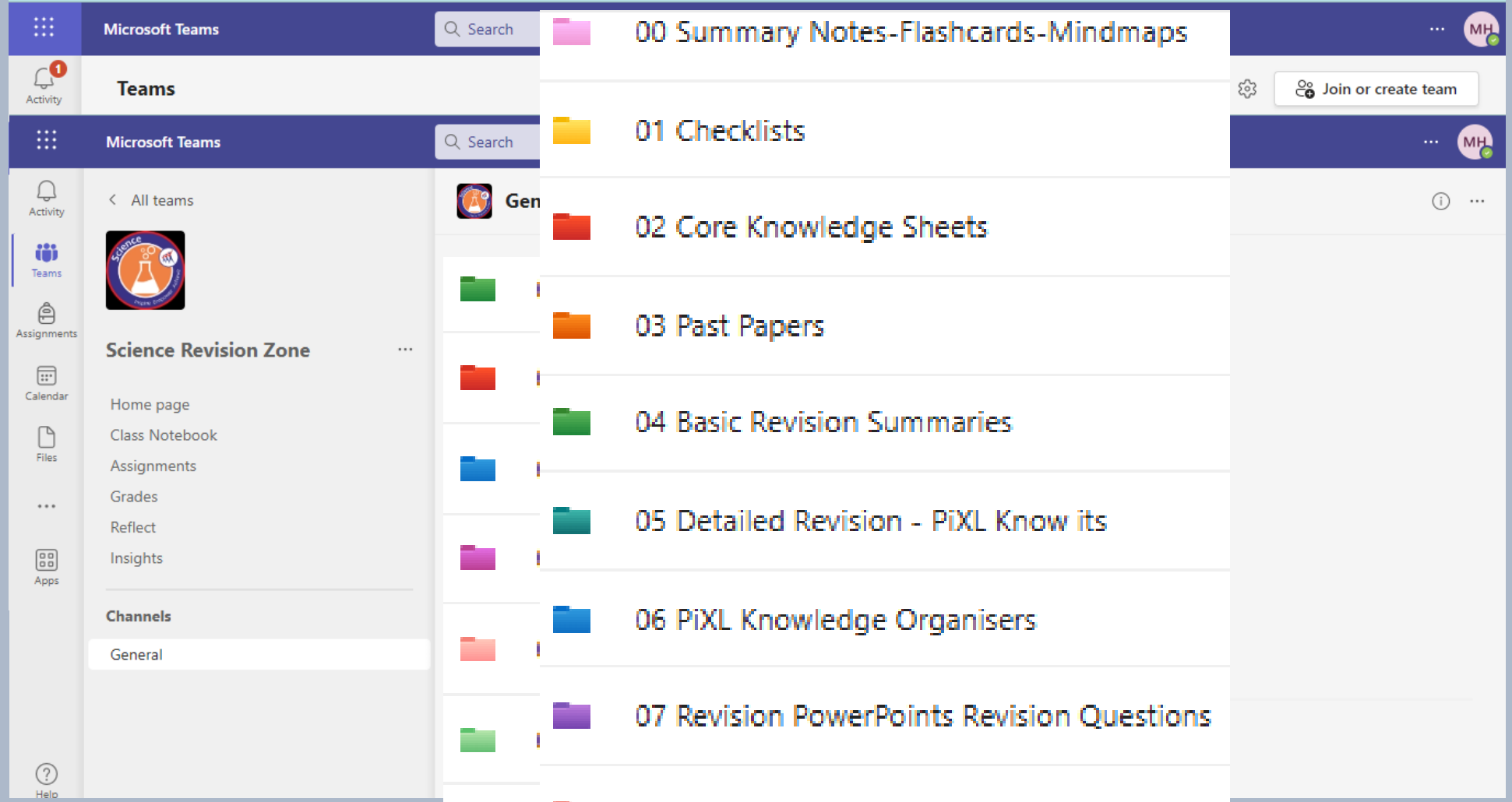
Compare nuclear fission and nuclear fusion, their role in generating energy and their long-term futures.

Background
Both fission and fusion are nuclear reactions that produce energy, but that is where their similarities end. Fission is the splitting of a heavy, unstable nucleus into two lighter nuclei, and fusion is the process where two light nuclei combine together releasing vast amounts of energy. Both have a place in the energy generation industry but, where is it?

Source articles
http://www.passmyexams.co.uk/GCSE/physics/nuclear-fusion.html
http://www.passmyexams.co.uk/GCSE/physics/nuclear-fission.html
http://www.gcsescience.com/prad37-nuclear-power-moderator-control-rod.htm
http://www.passmyexams.co.uk/GCSE/physics/nuclear-reactor.html
https://www.youtube.com/watch?v=LekacMuM12Y
https://www.youtube.com/watch?v=mZsaaturR6E
http://www.bbc.co.uk/schools/gcsebitesize/science/ocr_gateway_pre_2011/living_future/3_fuels_for_power3.shtml
http://www.bbc.co.uk/education/clips/zvmcd2p
http://www.world-nuclear.org/information-library/current-and-future-generation/outline-history-of-nuclear-energy.aspx
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4678124/

Use other sources as necessary.

Task:
Produce a scientific poster on the role of nuclear fission and nuclear fusion in the generation of energy.


Microsoft Teams
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Join or create team
Microsoft Teams
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Activity
Teams
Assignments
Calendar
Files
Apps
Help
All teams
Science Revision Zone
Home page
Class Notebook
Assignments
Grades
Reflect
Insights
Channels
General
00 Summary Notes-Flashcards-Mindmaps
01 Checklists
02 Core Knowledge Sheets
03 Past Papers
04 Basic Revision Summaries
05 Detailed Revision - PiXL Know its
06 PiXL Knowledge Organisers
07 Revision PowerPoints Revision Questions
08 Revision Videos
09 Quizlet
10 Revision Placmats
11 Knowledge organisers

Session 1

Click on the session 1 button and write the answers in your revision exercise book. If you are unsure of the facts in the topic go through the knowledge test questions and then mark it using the knowledge test answers.

Session 1

Knowledge test questions

Knowledge test answers

Required Practical

Click on the required practical button. Write details about the practical. Including : Method, Variables, Equipment, Diagram, Results Table, How you use your results and a Conclusion.

Required Practical - Microscope

Required Practical - Osmosis

Optional - Above and Beyond

If you want to really test yourself complete the shorter questions below to show real understanding.

Above and Beyond Foundation

Above and Beyond Higher

be possible to email me the learning checklists for the physics topics so that I could print them out?

nks and happy new year!