# YII Support

A Short Guide That Might Just Make a Difference.



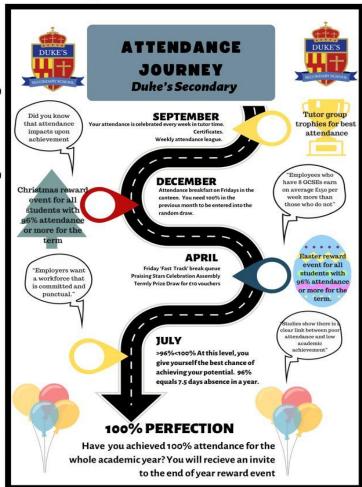
**DID YOU KNOW....** 

Students with 100% attendance are more than twice as likely to achieve 5+ GCSEs grade 9-5

**DUKE'S SECONDARY** 

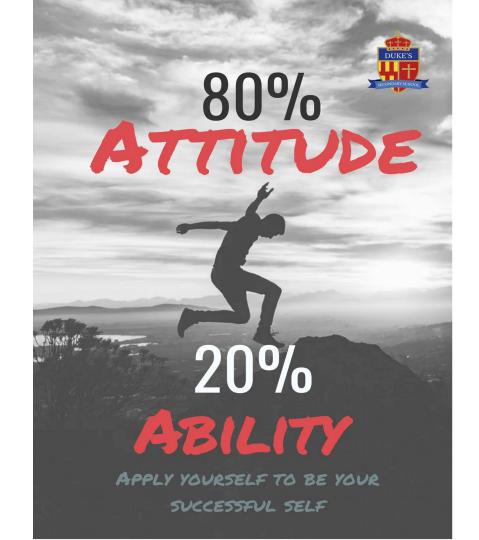


#### Your target is 96% attendance or more



affects

**Attendance Matters** 







3 Steps to Effective Examination Preparation

\*\*\*

# Learn Revise Test





Date	Exam Title	Time	Length				
Thursday	History (Paper 1)	11:05	1 hour 50m	Monday	English Language (Paper 1)	8:50	1 hour 45m
16/1/25				27/1/25	English Earliguage (Faper 1)	0.00	T Hour Tolli
				LITTIES			
4.5.000							
Friday	Music	11:05	1 hour	Tuesday	Biology (Paper 1)	8:50	1 hour 45m
17/1/25				28/1/25	Geogaphy (P +hC	2:00	1 hour 30m
					Biology (Paper 1) Geogaphy (Paper 1)  Maths (Paper 1) Physics (Paper 3)  Geography (Paper 2)		
Manday	English Language (Paper 2)	0.50	O haura 45m		hetWes		
Monday	English Language (Paper 2)	0C:0	Z nours form	War	ne bo	8:50	1 hour 45m
20/1/25	French Reading	11:10	H - IN 15, F - ID	oe MIII,			
			7 30	20 121			
Tuesday	Maths (Paper 3)	0	ario <sup>0</sup>	Janua			
21/1/25	matro (i apor o)	am	per agrd	Jar	Maths (Paper 1)	8:50	1 hour 30m
2111120	av e	Xaii	and Zo	JU/1/25	Physics (Paper 3)	11:05	1 hour 45m
	mock	oth	alle				
Wednesday	pr 11 111	1200	nour		1 (5 0)	4.45	14.1
22/1/25	Year	11:05	2 hours 15m	Friday	Geography (Paper 2)	1:45	1 hour
	•			31/1/25			
				Tuesday	Matha (Danar 2)	8:50	1 hour 30m
Thursday	French Writing	8:50	H - 1h 15 F - 1h	Tuesday 4/2/24	Maths (Paper 2)	11:05	2 hours
23/1/25				412124	History (Paper 3)	11:05	2 Hours
						87	
Friday	Pusings Enterprise	0.50	O hours	Wednesday	English Literature (Paper 1)	11:05	1 hour 45m
Friday	Business Enterprise	8:50	2 hours	5/2/25	PE (Paper 2)	9:00	1 hour
24/1/25				JILILJ	1 L (1 apci 2)	0.00	THOU
					1	#E	

Start







#### 3 Steps to

#### **Effective Examination Preparation**





**Learn** is about getting organised for your **Revise** process by organising and familiarising yourself with your revision material

The **Learn** phase works best if you start it early:

Create a revision timetable

Organise your notes





3 Steps to Effective Examination Preparation





The Right
Revision
Environment





3 Steps to

**Effective Examination Preparation** 



# Learn

# Revision Timetable





3 Steps to

**Effective Examination Preparation** 





# Read & Organise

**Your Notes** 





#### 3 Steps to



#### **Effective Examination Preparation**



When you Revise you go over the learning material that you have previously organised and familiarize yourself with your Learn.



To successfully Revise you need to do something with your notes to help you to put them into your memory. Try designing your own knowledge organisers, revision posters or even write your own notes.





3 Steps to

**Effective Examination Preparation** 



# Revise Condensing your Notes





3 Steps to



**Effective Examination Preparation** 

# Revise

# Cornell Note



Taking







3 Steps to Effective Examination Preparation





Use Revision

Guides





3 Steps to Effective Examination Preparation













3 Steps to Effective Examination Preparation





# Mind Maps







#### **Effective Examination Preparation**



Test uses the knowledge you have gained through Learn and Revise. The more you test and use the knowledge you have gained the better it will stay in your memory. Try tests and past paper





3 Steps to

**Effective Examination Preparation** 





Exam Papers





3 Steps to

**Effective Examination Preparation** 





Other
Memory
Tests

**English Language and Literature** 

### Revision materials

(All students already have access to these)





### **Google Classrooms**

**Duke's Secondary School** 

USEFUL INFO - NEWS - CURRICULUM - SIXTH FORM -

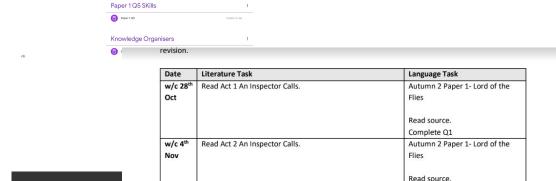
Past paper Questions

Revision guides

Inglish Language revision guides

Every teacher shared revision materials for GCSE English Language and Literature - i

There are videos talking you through what to do for each paper



### **English Language Revision Guide**

Comes with free online resource - can download to any device.

Practice questions

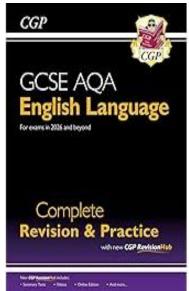
Tips for each of the questions



Must be: English Language

AQA from 2026

8700/1 8700/2



# **English Literature**

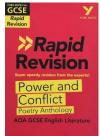
### Preparing for closed book exams

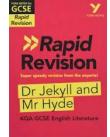
- **1. Macbeth** by William Shakespeare
- 2. The Strange Case of Dr. Jekyll and Mr. Hyde by R. L. Stevenson
- **3. An Inspector Calls** by J.B.Priestley
- 4. AQA **Power & Conflict** poetry
- 5. AQA **Unseen** poetry

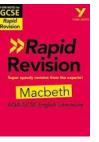
Copies of the texts, audiobooks, revision guides and past papers on Google Classroom.

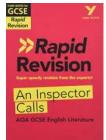
Must be: English Literature

<u>AQA</u> 8702/1 8702/2 Knowing the plot, characters, themes and key quotes is essential for success.











# Both English Language and Literature

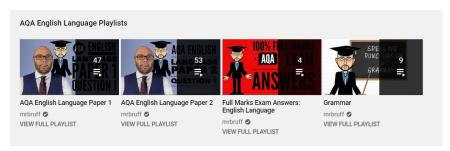
Watch YouTube tutorials:

- Model answers
- Exam tips
- Strategies for each question

Recommended:

Mr Bruff







Links to the in Google Classrooms

# Knowledge organisers

Available to download from Google Classrooms

Tips for each of the questions, how to answer each question, terminology etc.

Question [marks] timir	ng How do I structure my respo	nse?		What key things	must I remember?			
Section A – READING 40 ma	arks (50% of Language paper 1) 1 hour re	sllow the timing g	quidance for each quest	ion, that's 50 minutes to plan a	nd write your answers and 10 minutes for reading / ch	ecking		
List FOUR things     One idea per line     Can quote or paraphrase			Make sure each idea links backs to what the question has asked.  Check you are looking in the right part of the text (hint: highlight a box around it)					
How does the writer use language to     Words & phrases     Longuage features and techniques     Sentence forms [8 marks] 15 minutes	When writing, use PEEA: point Answer the question evidence: Choose a quote explains why your quote supports your point Analyse? Zoom in on specific words and techniques that have been used. Describe the effects (what they make you think, feel or imaging).		*Analyse - Say a li How does the won about (the connot Technical termino Words: adjectives Techniques: meta	Sentence starters for analyse The writer uses o to This creates the effect that This use of a is effective because				
3. How does the writer use structure to interest you as a reader? [12 marks] 10 minutes	When writing use PEE: points. Answer the question evidence reference the tax we will be a self-defined the self-defined the self-defined the self-defined will be self-defined with the self-defined will be self-defined will be self-defined with the self-defined will be self-defined will be self-defined with the self-defined will be self-defined will be self-defined with the self-defined will be self-defined wi		Bases 1.0.3 - Struktural kindmisses planning, middle and delige—by the order of events is effective modern or probabil introduction of each observation as significant positions or color, then described plant around 1.0 - Storm of the color of the			Sentence starters for structur The writer uses a to This creates the effect that. This use of a is effective because Or In the beginning the writerthan the writerThis effective because		
4. To what extent do you agree with. [Istatement] grow agree in the property of the property o		age / Isa backs up	Analysis – See C2 information This is where you respond to the statement in your own words explaining in detail why you sized of large size in worth 20 marks so you need to be writing more than for C2/C20 which are only if marks. Aim for at least 3 evaluation / analysis paragraphs and make sure you explain your own ideas about it to			Sentence starters:  I agree / disagree Because This writer uses This makes the reader think / feel / imagine		
Section B – Creative Wi	riting 40 marks (50% of Language p	aper 1 – 45	minutes)	200				
You are given a choice or writing a piece choice person and of description. Dut the same of from a statement. Don't focus too much on earselve (story) of concentre, 15 minutes (\$250) 45 minute		Things to include for effects:  Varying payersph length One sentence paragraph Range of sentence structures Range of punctuation ;;  Ambitious vocabulary		Describing a picture: Annotate 4 or 5 things; you can see, then annotate those things; colours/techniques/ 5 senses Writing from statement: Decide what the main events are. How do they happen? Why do they happen? What	Creative Exchibitations: Similer comparing two things with like or as (as sportling as a diamond) Metapher—comparing things by using a (the boy as a goard) Allieration—registroin of the soules at low is surf of viced (a Trottly, Allieration—registroin of the soules at the six and oviced (Trottly, Allieration—registroin of the soules at the six and oviced (Trottly, Onemistopiels—voords that sound like they do in real life (pilosh, bong, crosh) Personification—giving human qualifiests an interiment object (the tree denoted in the wind of jurisses is inspected throughout the six Registroin—when a verification are of paging pilose, band sect— ments capital return ADECTIVE—describes a thing YEBS—an action.  ADVERS—describes an action.			



### **PODCASTS**

#### Listen to podcasts:

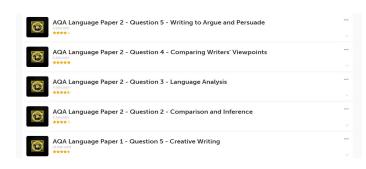
- Model answers
- Exam tips
- Strategies for each question

#### Recommended:

Mr Bruff

GCSE English revision pod











**FLASHCARDS** 

Take key information from revision guide / knowledge organiser / podcast / video and make cards

Test yourselves, be tested or read through before exam



PAF Explain!	Question 1 is worth?	Presentational Devices
Comparison about Language Features? Question?	Structure for Question 4	Marks for Question 5
Question 6 is worth?	Reading Section: 3 Parts: Mood, Memory and?	Explain Similies



#### **MINDMAPS**

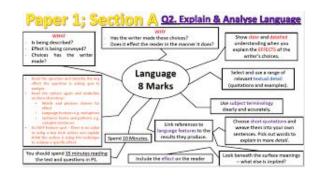
Take key information from your guide / knowledge organiser / podcast / video and make mindmaps

Mindmap each paper / question / skill group

Display in bedroom / be tested







Mini Quizzes

Take key information from revision guide / knowledge organiser / podcast / video and make quizzes and answer sheets

Test yourselves or be tested



- What does AFORREST stand for?
- 2. How many marks is paper 1 Question 3 worth?
- 3. What is the key skill for paper 1 Question 2?
- 4. How should you structure your answer for paper 1 Question 4?
- 5. How long should you spend on question 5?

#### **ANSWERS**

- Anecdote,
  alliteration, fact,
  opinion, rhetorical
  question, repetition,
  emotive language,
  statistics, triplets
- 2. 12 marks
- 3. Language analysis
- Statement, evaluation, evidence, zoom in, effect (SEEZE)
- 5. 45 minutes

#### Skill will help both English Language and Literature

#### **Practical tips:**

Choose an extract from a book / newspaper article.

Underline effective words Then 'explode' the words to consider the effect – what the words make you think / feel / imagine

#### From:

Mrs Pratchett was dirty

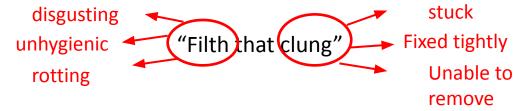
To...

#### Developing **analysis** skills

#### (needed for Paper 1 Q2 and Q4, Paper 2 Q3 and Q4

Her name was Mrs. Pratchett. She was a small skinny old had with a moustache on her upper lip and a mouth as sour as a green gooseberry. She never smiled. She never welcomed us when we went in, and the only times she spoke were when she said things like, 'I'm watchin' you so keep yer thievin' fingers off them chocolates!' Or 'I don't want you in 'ere just to look around! Either you forks out or you gets out'.

But by far the most loathsome thing about Mrs. Pratchett was the filth that clung around her. Her apron was grey and greasy. Her blouse had bits of breakfast all over it, toast-crumbs and tea stains and splotches of dried egg-yolk. It was her hands, however, that disturbed us most. They were disgusting. They were black with dirt and grime. They looked as though they had been putting lumps of coal on the fire all day long.



Mrs Pratchett was so dirty, she was unhygienic. The word 'filth' is effective because it makes us think that there was disgusting, rotting food on her and the verb 'clung' emphasizes how long it had been there as it would be very difficult to get off.

#### Language techniques (methods) Paper 1 O2 &4

Simile – comparing two things with like or as (as sparkling as a diamond) NOUN - a thing

**Metaphor** – comparing things by using is (the boy is a giant) ADJECTIVE – describes a thing

ADVERB – describes an action

**Repetition** – when a word / phrase is repeated throughout the text **Alliteration** – repetition of the sounds at the start of words (*Totally, Tropical, Taste*) PROPER NOUN – names of people, places, brands etc. – needs capital letter!

Onomatopoeia – words that sound like they do in real life (splash, bang, crash) VERB – an action

**Assonance** – repetition of vowel sounds (crying time, hop-scotch, how now brown cow)

**Personification** – giving human qualities to an inanimate object (the tree danced in the wind)

## **Practise Writing**

Use Google Images to find interesting photographs to act as stimulus for writing.

Write whole thing or just planning.

#### **Practical tips:**

Annotate a picture with what you can see

Add in other senses / what else you could imagine being there

**Up-level vocabulary / techniques**add more detail with a range of adjectives, similes, metaphors (use knowledge organiser)



#### PICTURE FROM EXAM **QUESTION**

vet carpet studded with **brilliant diamonds** 

Night sky trees

tower over the market **Old buildings** 

**Ancient buildings** 

Frost glitters on top of the stalls like shimmering gemstones

Cold breeze / frost

Market stalls

Smell of food **Delicious** aromas fill the frosty air

**Fairy lights** 

Sounds of people chatting / music

Angelic voices of the choir Sweet melodic carols

People pushing by

**People shopping** 

Focused shoppers charge by

#### **GCSE English Language** Working from home

This pack contains:

Guidance and terminology for each question 2 x paper 1s

2x paper 2s

You can either choose to answer specific questions that you are finding difficult in class or to answer whole past papers. You could take your responses to your English teacher to look at and get feedback. Alternatively, you could use this resource to practise reading / planning for each question.



#### The Da Vinci Code Paper 1

1 hour 45 minutes

1 hour - Section A (Q1-4) 45 minutes - Section B (Q5)



### Past paper Questions

Shared on Google Classrooms

Pased, ADI  Retirate 4 hings Chord the question - what and you being state in both ADI  Chord the question - what and you being state in both ADI  Chord the question - send if a look at  Both ADI  Chord the question - underline her gold at  Marked and question - underline her gold at  The set them as the gold and the product of  The set them as a surface in sensitive  making you'd before the gold and and  make you'd book, feel or inequely.	Extent 1.08 contains and analyses trained by the contains your spinlers and analyses trained by the contains with underline white you are boing to.  For boi	Pages LA 2 Standard standards and Ording Nations - Refer that of place to the control of the control of the control of the ordinard place is a significant place in the control of the control of placed transfer. Or control of the control of the placed transfer is of the control of the control of the placed transfer. Or control of the control of the land transfer is of the control of the control of the land transfer. Or control of the control of the land transfer is the control of the control of the land transfer is the control of the control of the land of the control of the control of the land of the land of the land of the land of the land of the land of the land of land of the land of the land of the lan
Page 1.03 Anging the State Anging the Anging	upon an obligat storic fi bio.  Les come holistiems and 20 Me fines 2:00  links - propriega que rising unit des or los se  links - propriega que rising unit des or los se  links - propriega que rising unit de la color  dificultar - compartir de la color  dificultar - la compartir de la color  dificultar - la color  difi	Resear L. Life  County on white  County on white  Did marks content, 16 marks 59/00)  Fins there quickly before acting  Solds the bear serves will be mark  through  through  and contents on person  to include the contents of the mark  to include the contents of the mark  to include the contents of the mark  to include the contents on the contents of the contents  contents on contents on the contents on the contents of production.  Cleak and sold pear writing at the end

Section A - READING	40 marks	(50% of Language paper 1). 1 hour	College the Similar endelsance	for each constant that's 5	50 minutes to alon and write your answers and 10 min	sten for morting / checking	
List FOUR things [4 marks] 5 minutes	One idea per line Can quote or paraphrase		Make sure each idea links backs to what the question has able to the control of t				
Now does the writer use language to     Words & phrases     Language features and sechalgos     Sentance forms     Sentance forms     Sentance forms	points Account the question autiliance Choose a quote mer and applicatively your point. Analyse <sup>2</sup> 2 comin on specific words and techniques that have been used. Exercise the effects what they		How does the w think about (the Technical term) Words: adjects	*Audior: Sign in Early or the Sect of this — High pering the small result.  Near coal the sect (Section rate you feet, shad does it make you irregine or think should the connotations).  Technical Semangior: Issee Gilbs on sidentificates)  Words agreetive ((Sections), shares (osectors actions), vertes (actions), nouns (phesp). Techniques melaphor, small, person ficialism, eitherstein.			
see structure to poi interest you as a evil reader? exp [12 marks] 10 minutes str		writing, use PEE: Answer the question note: reference the lets inc why does the structure suggest this inc why does the structure suggest this phee? What is the effect? (what does it you think, feel or imagine?	Beginning, midd sudden or gradu Expanding the fo describes breaf a an opera, then as Narrowing the fo they describes as about a step, then flashbacks that he	Pages 1.0 2 Introduction Mechanisms pages 1.0 2 Int			
To what extent do you agree with [statement]     To marks] 30 minutes	Evaluagree Evide Zoom struct becks	When writing, use SEEZE! statement respond to statement to statement to statement to furnisher with your own words - why do you agree / disagree - "".  Zoom in (analyse)" - Find a method (language / mutucing that the writer has used which also back as your views Effect - explain the effect of the method (language / document).		*Analyse - See 20 information *Evaluation This is where you respond to the statement in your own words explaining in detail why you agent disagree. **Reterement - This question is worth 20 marks so you need to be writing more than for CRUCD writer on only it marks. After for all least 2 evaluation; family sis pergraphs and marks sure you explain your own Sees about it too.			

structures Range of punctuation

Both English Language and

Literature



Write in full sentences.



Write the opening of a story about visiting a strange and unusual place

Must be: English Language **AQA** 

8700/1 8700/2

English Literature **AQA** 8702/1 8702/2

# Extra support in school

Lesson 6 every Thursday

English Language & Literature lunchtime drop in / revision space - every day, passes needed

Small group interventions with Ms Everton





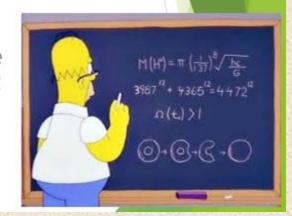
# Help your child revise



Duke's Secondary, 2025-26.

### Practise, practise, practise.....

The best way to revise maths is to do maths!



How do they identify topics they are strugging with?

At the start of EVERY Maths lesson retrieval question are given.

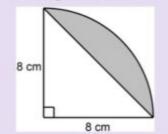
If they are getting any wrong then this topic needs to be worked on.

If they are not sure the name of the topic they should ask their teacher.

lve

$$6x - 5 > 4x + 7$$

ate the area of naded segment



Make t the subject of the formula

$$s = 4t - 9$$

The ratio of female to male members of a club is 5 : 4. If there are 6 more female than male members, what is total membership of the club?

D

# Practise by doing questions



#### OCR GCSE Exam Papers

Grade Boundaries

#### OCR Past papers

Question Paper	Mark Scheme
June 2022 Foundation Paper 1	Mark Scheme
June 2022 Foundation Paper 2 (Non Calculator)	Mark Scheme
June 2022 Foundation Paper, 3	Mark Scheme
June 2022 Higher Paper 4	Mark Scheme
June 2022 Higher Paser S (Non Calculator)	Mark Scheme
June 2022 Higher Paper 6	Mark.Scheme
2021 Foundation Faser 1	Mark Scheme
2021 Foundation Faper 2 (Non Calculator)	Mark Scheme
2021 Foundation Paper 3	Mark Scheme
2021 Higher Paper 6	Mark Scheme

iday 20 May 2022 - M	lorning
ICSE (9-1) Mathematics	
#6/01 Paper 1 (Foundation Tier)	
as allowed: 1 hour 30 minutes	
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Series number	Candidate number
	Candidate number
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ast name  STRUCTIONS  Use block int. You can use an HB persit. It file block int. You can use an HB persit. If the lined pages at the end of this books! I Accessed all the question.	but only for graphs and diagrams, space provided. If you need eaths space The question numbers must be clearly o
det name(s) det name  STRUCTIONS Che black ink. You can use an HB perest. It Within your answer to each question in the The lived pages at the end of this blacket.	but only for graphs and diagrams, appare provided. If you need eather spine in the clearly in appared with working. Marks night to our answers it would write the clearly or appared with working. Marks night to our answers it would be a spine of the clear of the cle

Work out AB	
Calculate the shaded area	Son Son
Find the length of AB.	14cm c
Rayan runs 861m in 2 minutes 6 seconds.  Assuming his average speed remains the same, how long should it take Rayan to run 205m?	
Here is a formula	

g and F

Polygo

M ons

's 'uency Tables

www.mathsgenie.co.uk

#### Grade 4

	Exam Questions	Exam Questions Booklet
est and Depreciation	Exam Questions	Compound Interest and Depreciation
	Exam Questions	Indices
HCF and LCM	Exam Questions	HCF, LCM
stance Time Graphs		Real Life Graphs
	Exam Questions	Inequalities
lving Equations	Exam Questions	Forming and Solving Equations
Term)	Exam Questions	Sequences (nth term)
Factorising	Exam Questions	Expand and Factorise
	Exam Questions	Pythagoras
el Lines	Exam Questions	Angles in Parallel Lines
ons	Exam Questions	Angles in Polygons
	Exam Questions	Surface Area
<u>sm</u>	Exam Questions	Volume of Prisms
	Exam Questions	Volume and Surface Area of Cylinders
uction		Loci and Construction
		Bearings

Exam Questions

Exam Questions

Plans and Elevations

Averages from Frequency Tables

#### www.corbettmaths.com

Algebra: changing the subject Video 7 Practice Questions Textbook Exercise

Algebra: changing the subject advanced <u>Video 8</u> <u>Practice Questions Textbook</u>
Exercise

Algebra: collecting like terms Video 9 Practice Questions Textbook Exercise

Algebra: completing the square Video 10 Practice Questions Textbook

Exercise

Algebra: equation of a circle Video 12 Practice Questions Textbook Exercise

Algebra: expanding brackets Video 13 Practice Questions Textbook Exercise



Corbettmaths Revision Cards

Excellent school discounts

Also free P&P for orders of 20+ sets

Algebra: expanding two brackets <u>Video 14</u> <u>Practice Questions</u> <u>Textbool</u>
Exercise

Algebra: expanding three brackets <u>Video 15</u> <u>Practice Questions Textbook</u>
Exercise

Algebra: expressions – forming <u>Video 16</u> <u>Practice Questions</u> <u>Textbook</u> Exercise



#### Learn - Revise - Test (Half-Term 1)

Mr D Smeaton · Yesterday

Hi Y11

In the link below there are 6 questions that we would like you to revise this half term. In the last week of the half term you will be given an assessment based on these skills. This will help to inform us of any necessary intervention. If you click on the heading it will refresh the question, if you click on the symbol in the bottom left the worked solutions will be displayed.

I have also put links to Mathsgenie video's to help support your independent learning.

If you have any issues please see your maths teacher.

Good luck,

Mr. Smeaton.



Factorise: A number was increased by 50% to Find the value of a and b: give 102. What was the original  $x^2 + x - 12$ 4a + 2b = 222a + 3b = 21number? 127 people stated their favourite What is the bearing of Write down the lowest common food. A from B: multiple of 42 and 48. Pizza:44. Pasta:41. Salad:42 Calculate the angles needed to draw a pie chart.

#### Attend P6 Monday Exam Practise Sessions

Every Monday 3-4pm with their normal Maths teacher.

The primary focus of these sessions will be on exam practise and technique. Each student will have the opportunity to work through practise questions, receive modelled solutions from their teacher, and gain vital tips that will assist them in the forthcoming GCSE examinations.

In exceptional circumstances, the student should at the very least take the work away and watch the video walk through!



Write your name here	e	Other names	
Pearson E			
Math	ematics /		
FOR	FULL VIDEO SOLUT SCAN THE QR CODE youtube.com/achavrahkettleraths	IONS	dation Tier
Haveak Kettle	FULL VIDEO SOLUT	IONS	dation Tier

Sparx Code
U480
U888
U751
U803
U803
_

# Other useful websites:

www.thenational.academy

www.drfrostmaths.com

www.thirdspacelearning.com

www.onmaths.com

www.senecalearning.com

#### Exam Dates:

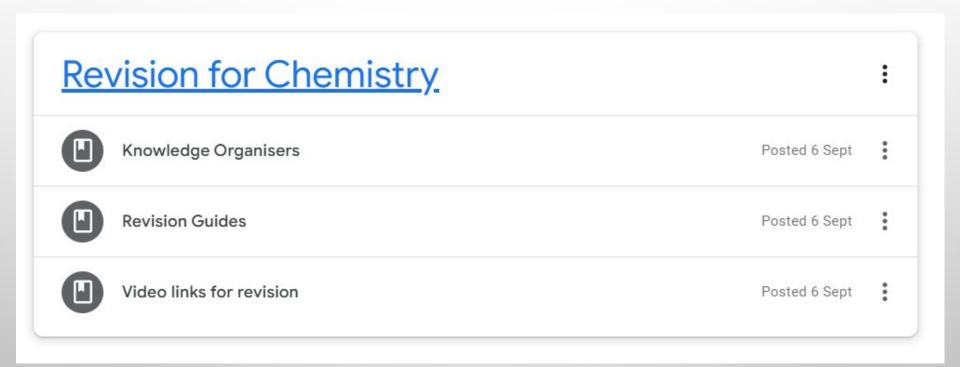
Thursday, 14th May Wednesday, 3rd June Wednesday, 10th June

- Support.

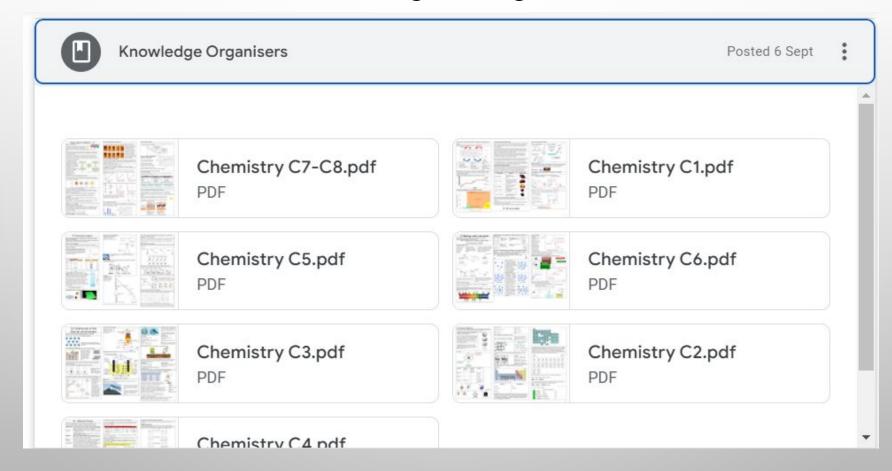
  O Regular, concentrated practice is best.
- O Seek help if required teachers always willing to talk!
- O Contact school;
  - Maths teachers via Google Classroom
  - Maths dept. ext. 383
  - daniel.naylor@dukes.ncea.org.uk

# REVISION STRATEGIES SCIENCE

# Google classrooms



# Knowledge organisers



Knowledge organisers the rock, producing sulphuric acid which releases the metals in the The high copper grade solution produced is recovered through electrolysis. Disadvantages **Knowledge Organisers** Can produce some toxic The production process is very How do we extract metals? Electrolysis is still needed to purify Metals below carbon in the Environmentally friendly the metal and this is expensive reactivity series are No need for high temperatures or high extracted using carbon in a C3 Chemicals of the Phyto-extraction involves growing plants on contaminated land:blast furnace. No toxic chemiacls used natural environment Cleans up spoil heaps C3.1 How are the atoms held together in a metal?? What are the chemical bonds holding metal together? Plants grow and absorb toxic metals through their roots. The crop is harvested and then humand to each rentaine the metal oxidee and the metal in Metallic bonds are formed between the Plants grow and absorb toxic metals through their roots. The crop is harveste and then burned to ash. The ash contains the metal oxides and the metal is and then burned to ash. The ash contains the metal oxides and the metal is Netals above carbon in the reactivity series are extracted using electrolysis. metanic bornes are formed between the outer electrons and the positive nucleus of Plant growth controls the clean up so this can take a long time to What properties do metals have as a results of their structure? Theory diagram for the electrolysis of extracted using electrolysis. MOLTEN ALUMINIUM OXIDE clean the land. Environmentally friendly electrode Less expensive then other (chemical) land C3-3 What are electrolytes and what happens during electrolysis? surface into almost any shape Electrolytes are ionic salts either when molten or in solution. electrolyte and still retain their globules of of molten properties. Metals are aluminum form aluminium on the surface also ductile, which of the electrode means they can be Their giant structure (with lots of bonds) means metals have high melting and pulled inot long thin are attracted Their giant structure (with lots of bonds) means metals have high meiting and boiling points. Metals are also strong and hard as well as good conductors of the structure and allocations. to the positive electrode, lese electrons, se are exidised OXIDATION C3-2 How are metals with different reactivity's extracted? positive ions During electrolysis the metals (hydrogen in squeous are attracted Metals react differently Luring electrolysis the metals (nyorogen in aqueous solutions) is formed at the cathode (negative) while the to the negative electrode, gain Aland 202 - + 02 + 4esolutions) is formed at the cathode (negative) it non-metals are formed at the anode (positive). with different substances and their electrons, so OVERALL: 2Al₂O₃ → 4Al + 3O₂ are reduced relative reactivity leans Reduction is a gain of electrons and oxidation is a loss of myner only:Metals can only be (economically) extracted from low grade ores using
Physical State of the Stat Pb\*+2e-→ Pb and 2Br-→ Br2+2e-REDUCTION to the reactivity series. Reduction is a gain of electrons and oxidation is a loss electrons. Matching this with the half equations for the electrons. Matching this with the nair equations tot suf-electrolysis of ionic salts - metal ions gain electrons to any property of the metal ions gain electrons to remain the com-The reactivity of metals with water or dilute acids is related to the tendency of the elictrolysis of ionic salts – metal ions gain electrons to foll metals and are then reduced while non-metal ions lose Mounds of waste from pulverised rick containing low grade copper phytomining or bioleaching. For aqueous reactions - two competing sets of ions: ores accumulate around mining Bio-leaching involves bacteria: Atturn abharida in water this is: NaCl -> Na+ + Clthese metals can only to the reaction at the cathode recover the copper, rocks are a aqueous solution,

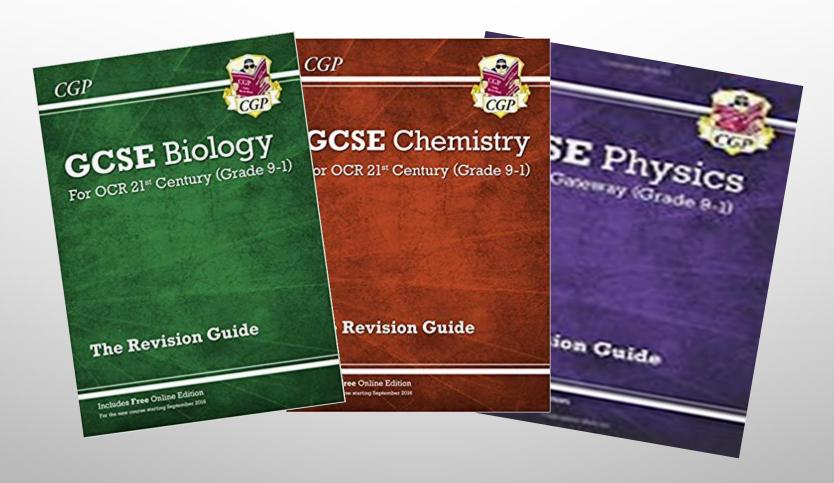
## ...Decoding the questions

STATE - SHORT ANSWER. DON'T WASTE TIME DESCRIBING OR EXPLAINING!

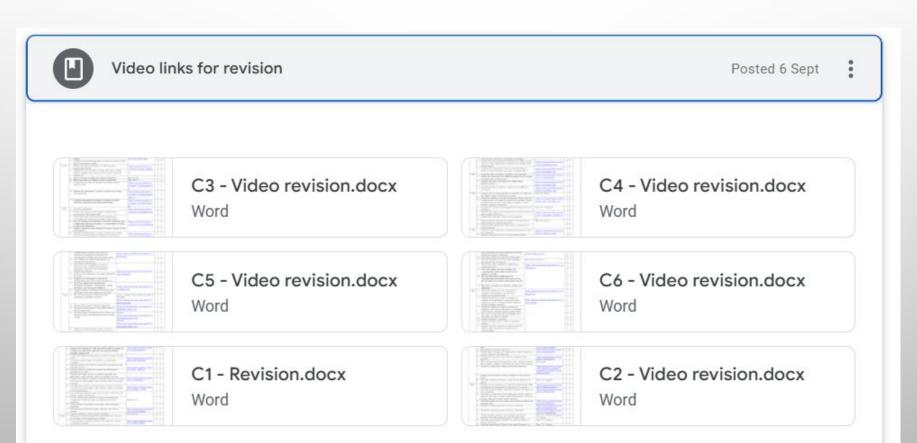
<u>DESCRIBE</u> – RECALL FACTS E.G. WHAT DOES IT LOOK LIKE? WHAT HAPPENS? STEP-BY-STEP

EXPLAIN - GIVE A CLEAR SCIENTIFIC REASON - LINK IT TO THE QUESTION

#### REVISION GUIDE



## Video Revision



# Video Revision

	n (1258)	
to OCR21C (	Chemistry B (1236)	1
Personalised Revision Checklists OCR21C Company of the Company of	als of the natural environment R A G	=
Personalises 2016 Chapter C3: Chemics	t the com/wa	1
- (IOEO) from 2010	WOUTHING COMME	$\perp$
OCR21C Chemical bonds in	https://www.youtun tch?v=b1y2Q6YX1bQ	1
Topic		_
Topic  C3.1  1. Describe the nature and arrangement of chemical bonds in metals  2. Explain how the bulk properties of metals are related to the term of bonds they contain.	- ho co	
metals was bulk properties of me	Manny voutube.co	_
Explain how the bulk property type of bonds they contain type of bonds they contain     Deduce an order of reactivity of metals based on	https://www.yes m/watch?v=2i5Lm7BMtp	
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3. Write formulae and balanced ionic equations used to	https://www.you m/watch?v=gvNuMpxqG7	1
4. Write formulae and processes	m/watch:v=gviva	1
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	11 WOUTTIDE.CO	1
Explain why electrolysis is used to extract some metals     from their ores	https://www.you m/watch?v=gvNuMpxqG7	
electrolysis is used to extract	m/watch: v=8	_
6. Explain why close	Q&t=1s	
TOTT UION	I I ANALY VOULUB	
7. Evaluate alternative biological methods of metal	https://www.ye m/watch?v=b5RVPauf4o	
7. Evaluate alternative biological metrious extraction (bacterial and phytoextraction) *	m/Watch: v	_
7. Evaluate altonaterial and phytoexaction (bacterial and phytoexaction)	Mtube co	
extraction	https://www.youtube.co	T
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C3.3     Describe electrolysis     Predict the products of electrolysis of binary ionic     Predict the molten state     responsible in the molten state	m/waterr	Ì
C3.3 1. Describe of electrolysis of binary research		
Predict the products of closest compounds in the molten state		
compounds III IIIo III		

# DON'T WASTE TIME AND SPACE RE-WRITING THE QUESTION

(b) Darwin was the first scientist to state that humans and other primates had common ancestors.

Many people were against Darwin's ideas at that time.

Give two reasons why they were against his ideas.

Many people were against Darwin's ideas because
they were very religious and Darwin rejected God

2 People were strongly religious, Darwin rejected God

Looking at papers where candidates ended up with a grade 3, about 25% of candidates ran out of time!

#### MOST COMMON MISTAKES

NOT READING THE QUESTION PROPERLY

• NOT FINISHING THE PAPER - TIMING!

• IGNORING THE MARKING SCHEME - ALLOCATE MARKS!

• REPETITION – MAKING THE POINT MORE THAN ONCE WON'T GET YOU ANY EXTRA MARKS

MISSING PART OF A QUESTION –
 E.G. "DESCRIBE AND EXPLAIN", DON'T FORGET TO EXPLAIN!

#### WHY REVISE?

REVISION IS GOING OVER INFORMATION.

WHEN YOU LEARN SOMETHING NEW YOUR BRAIN MAKES A NEW CONNECTION.

IF THIS CONNECTION IS NOT FIRED AGAIN, THEN IT WILL DISAPPEAR AND YOU WILL LOSE THAT SKILL OR KNOWLEDGE.

85% MATERIAL IS FORGOTTEN AFTER 7 DAYS



AIM TO GO OVER SUBJECT MATERIAL FREQUENTLY, SO THAT REINFORCES NEW LINK IN THE BRAIN.

THE MORE FREQUENTLY MATERIAL IS REVIEWED, THE STRONGER THE LINKS WILL BE AND MORE OF THE SKILL OR KNOWLEDGE WILL BE RETAINED LONG TERM



#### **TIPS**

• WHERE:

SITTING AT A DESK IN A QUIET ROOM – NO DISTRACTIONS! GO TO THE LIBRARY IF HOME ISN'T QUIET ENOUGH.

YOUR BRAIN NEEDS TO FOCUS ON SCIENCE... NOT TV PICTURES OR SONG LYRICS. THIS ALSO MEANS THAT YOUR PHONE NEEDS TO BE ON SILENT!

#### • WHAT:

SET YOURSELF A SPECIFIC & REALISTIC GOAL

(E.G. I WILL REVISE EVOLUTION AND COMPLETE ONE PAST PAPER)

## **TIPS**

SANDWICH THEM WITH TOPICS YOU DON'T MIND (LIKE | DIFFICULT

•<u>HOW:</u>

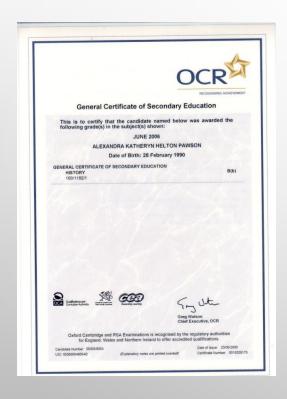
DON'T AVOID DIFFICULT TOPICS!

☐ LIKE)

## •WHEN:

AS SOON AS YOU GET IN FROM SCHOOL WHEN YOU ARE NOT TIRED — IF YOU ARE TIRED YOU WILL FEEL MORE STRESSED AND FIND IT HARDER TO CONCENTRATE

# ONE MARK CAN MAKE THE DIFFERENCE AND IMPROVE A GRADE!



YOUR EXAM CERTIFICATES STAY WITH YOU FOREVER

EMPLOYERS WILL ASK TO SEE YOUR

CERTIFICATES – MAKE SURE YOU GET RESULTS

YOU ARE PROUD TO PUT ON YOUR CV

ON THE DAY THINK POSITIVE AND STAY CALM!