

# Year 11 Revision Evening Thursday

21st September 2023

SUPPORT FOR REVISION - ENGLISH, MATHS AND SCIENCE





#### Aims of this evening:

Welcome

Guidance for Science GCSE

Guidance for English GCSE

Guidance for Maths GCSE

How to help at home.

Useful online resources.



How can I support my child in this context?

When should my child start reviewing work?

How long should my child revise for?

Do I need to buy revision guides?

How can I be supportive when I don't know all the exam content?

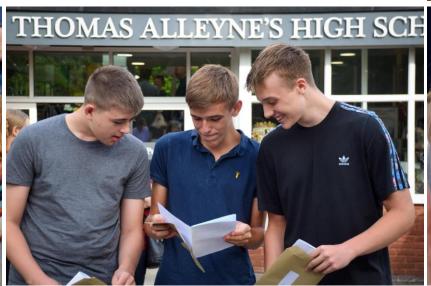
What does good revision look like?













Progress Opportunity Individuality GCSE 2023

#### Revision starts now







**PREPARATION** 



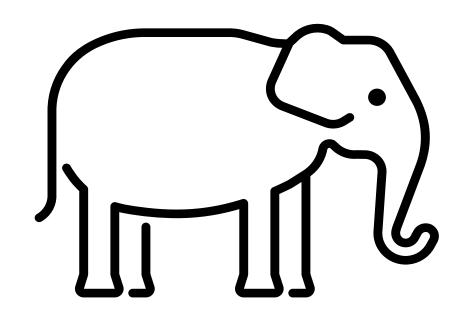
HARD WORK



**SUPPORT** 

How do you eat an elephant?...

...One bite at a time!



#### What is revision anyway?

Revision is about trying to condense a large amount of knowledge into manageable chunks so that you can recall more of it.

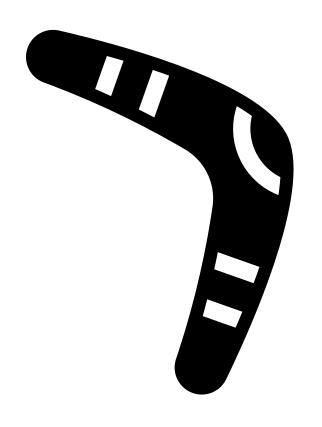
Revision is also about knowing what skills you need to practise for exam success.





@ExamProblems

Trying to highlight all the important notes in your revision and being left with a piece of paper that's brighter than your future



# Tried and tested revision strategies

A	AQA	Eduquas	Edexcel GCSE	Edexcel BTEC	OCR GCSE
A	Art and Design	Design and	Business	Animal Care	Compter
E	Biology	Technology (Graphics and	Studies	(Tech Award)	Science
(	Chemistry	RM)	Drama	Child Development	Music
F	Physics	Food Prep and Nutrition	History	(Tech Award)	
(	Combined Science			Sport	
F	French			(Tech Award)	
E	English Literature			Health and Social Care	
E	English Language			(Tech Award)	
ľ	Maths				
F	Further Maths				
(	Geography				
F	Religious Studies				

# Know your Exam Boards



#### **Sample Revision Timetable**

	4:00-4:45	4:45-5:30	5:30-6:30	6:30-7:15	7:15-8:00
Wed 5 <sup>th</sup>	English Paper 1	Maths Paper 1	Break/Tea	Science Paper 1	History
Thur 6 <sup>th</sup>	PE	Spanish	Break/Tea	FOOTBALL	FOOTBALL
Fri 7 <sup>th</sup>	Science Paper 2	Maths Paper 2	Break/Tea	History	Spanish
	9:00-9:45	10:00-10:45			
Sat 8th	Science Paper 3	Geog.			

Your revision timetable should be unique to you – you might have commitments (e.g. job, family) and you need to balance these. Consistent, disciplined revision beats unstructured cramming every time.

Revision Timetable Maker / Study Planner (getrevising.co.uk)

#### GCSE HISTORY RAG



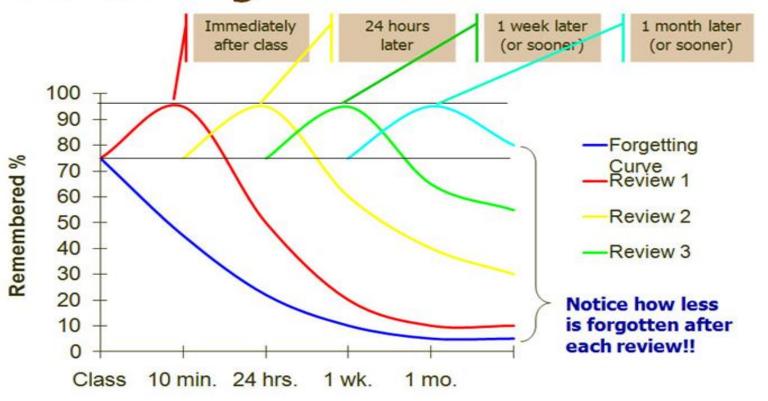


### Traffic Lights

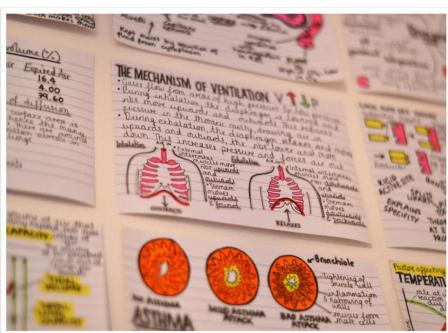
Transport in Cells		
Describe the process of diffusion, including examples		
Explain how diffusion is affected by different factors		
Define and explain "surface area to volume ratio", and how this relates to single-celled and multicellular organisms (inc calculations)		
Explain how the effectiveness of an exchange surface can be increased,		
including examples of adaptations for small intestines, lungs, gills roots & leaves		
Describe the process of osmosis (inc calculation of water uptake & percentage gain and loss of mass of plant tissue)		
Required practical 3: investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue		
Describe the process of active transport, including examples - gut and roots		
Explain the differences between diffusion, osmosis and active transport		



#### Overcoming the Curve

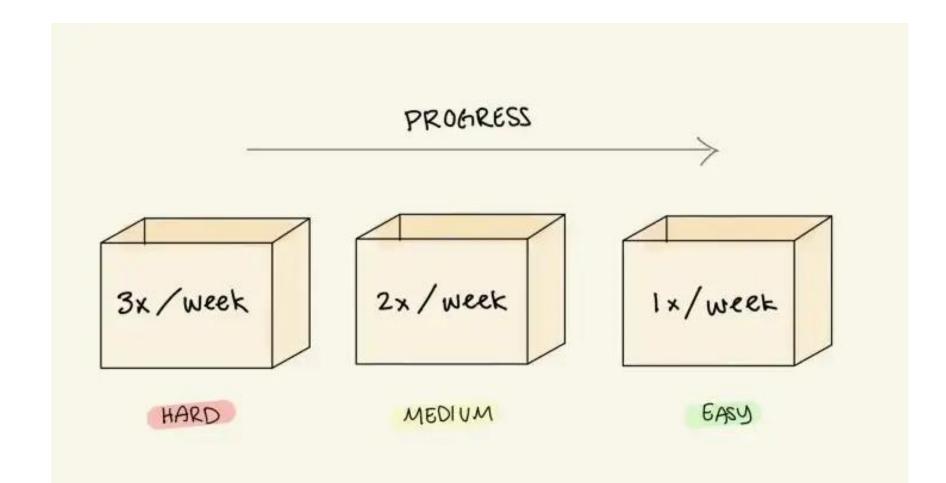




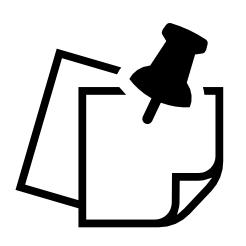


#### Revision Cards

A Short & Sweet Guide to the Leitner System | Goodnotes Blog

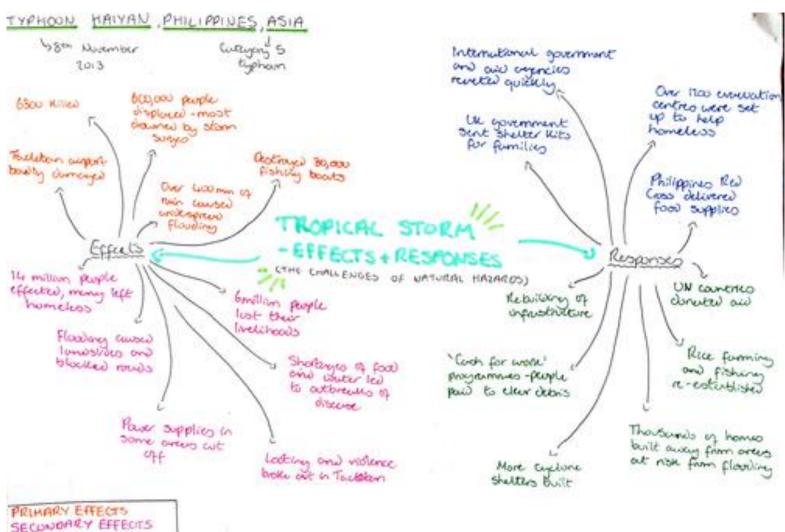


#### Post-it notes







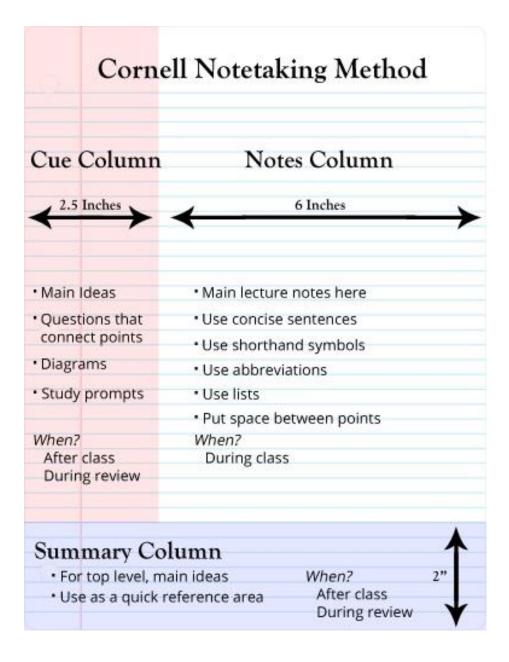


## Mindmaps

IMMEDIATE RESPONSES LONG TERM RESPONSES \ Waves Hydraulic action - The sheer force of the waves hitting ot. Destructive the rocks and cliffe and gettings 1-1850 - High @ . 10-15 per minute. Stump High frequency & Erosion Attrition - Stones and racks Attrition - Stones and racks Circular motion: + fetch collide making them rounder Weak Swash Strong BW Abrasion - Sediment Dines of weakness crock through and racks hit the cliff reposional processes

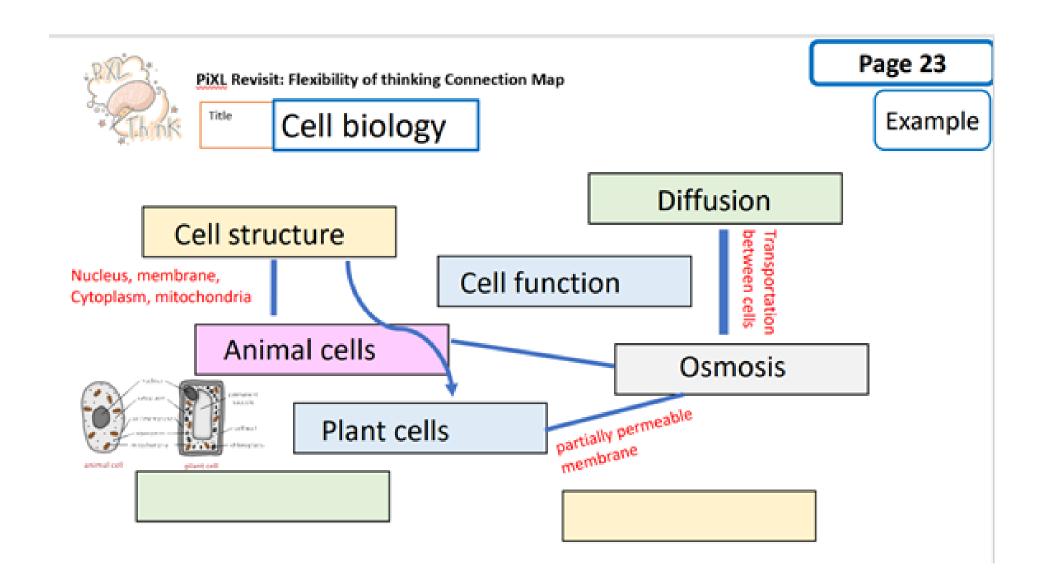
Low 6. 9 per minute face and break racks. Dec able clay graves · Weak Swash Strong BW and and grava Low 6. 9 per minute face and break racks. 2) The lines of weakness get bigger and turn into a sea cave.

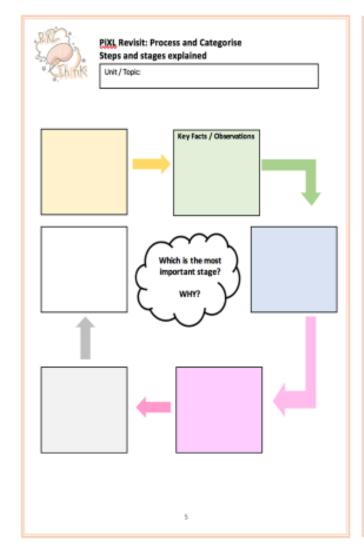
Elliptical motion Certain types of 3) Deepens + Widens on either commissions. stemp and arch work cliffs. ast Buildings. DOINGS USWADON Form where without and receitment an Seal Walls by the acidity 4) Cliff collapse leaves and arch stack. 1) Headlands and boys are le I land of formers output 26 seafork homes 600 created by differential conpensate there is hard and resistant rock erosion. £80,000-£1. · Sandstone and day meet the coast out b 2) Underwhing erosion occurs 2) Sheltered bays are made by softer rock 3) Cliff collapse. 3) Sondstone juts out as it isn't ended Langstore Drift Spits and Bars Coasts. Prevalent wind directs were to Langshore drift brings the beach at 30°. Sediment is Charge in 7 sediment to the endu then taken back by gravity at 90° of the coast but locses energy and deposits the



# Cornell notes and Re-visit templates

https://www.youtube.com/watch?v=ErSjc1PEGKE





PIXI, Revisit: Ranking Triangle						
Name of Topic:						
Name:						
Class:						
The most important information goes at the top and then the least important at the bottom. Make sure you justify WHY you think it the most/least important.						
7						

## Break up an hour...



#### Select

Select a topic or exam question theme. 5 minutes

#### Identify

• Identify key vocabulary – 5 minutes

#### Create

 Create some notes, revision card, revision clock on these themes. 15 minutes

#### Watch

Watch a GCSEpod / video revision clip –
 10- minutes

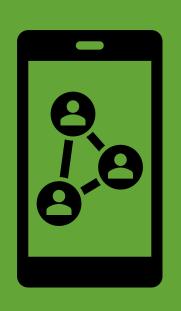
#### Take

• Take a short break – 10 minutes

#### Practice

 Practice a relevant exam question on this topic. – 15 – 20 minutes.

#### Online Revision Resources



GCSEpod

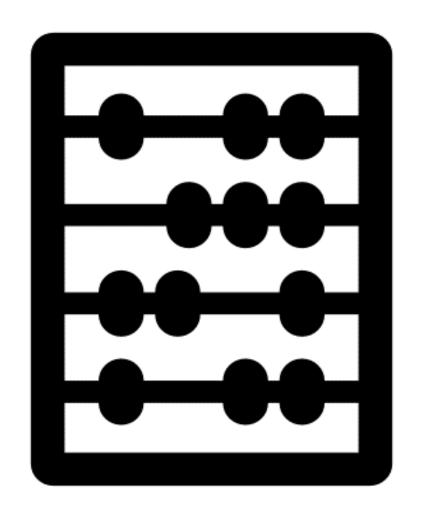
My Study plan (App)

Cognito

BBC Bitesize

Quizlet

Seneca Learning



# Revising Maths

#### **AQA Mathematics 8300**

Higher Tier – grades 9-4 Foundation Tier – grades 5-1

3 exams:

Paper 1 is a non-calculator paper

Paper 2 and 3 are both calculator papers



Any topic could come up on any paper



A mix of question styles including single mark questions, multi-step problems and multiple-choice questions



The questions get more difficult as you work through the papers



A formula sheet will NOT be provided

#### GCSE Mathematics

#### What do I need?

Formula sheet – you need to learn these		
Revision guide – order through school		
2 Black Pens		
Pencil		
Ruler		
Compass		
Protractor		
Rubber		
Scientific calculators £8.50 **		
Maths sets £1.20 **		
**: - -		

\*\* available to buy from the TAHS Online Shop

How do we prepare students in maths?

Model answers in class

Regular recapping of previous work

Regular homework

Half termly assessments throughout the GCSE course - these are past or practice exam papers.

SWANS – focused feedback for improvement

# Types of Questions

AO1 – Use and apply standard techniques (40%)

AO2 – Reason, interpret and communicate mathematically (30%)

AO3 – Solve problems within mathematics and in other contexts (30%)

#### Communicate mathematically

01

Show all workings (even if really easy)

02

Set out clearly

03

Write a final sentence for your answer

04

For geometry questions - all used rules must be stated in the correct mathematical language

Circle the equation of a line that is parallel to y = 5x - 2

[1 mark]

$$y = 2x - 5$$

$$y = 5x + 2$$

$$y = 3x - 2$$

$$y = 5x + 2$$
  $y = 3x - 2$   $y = -\frac{1}{5}x - 2$ 

### Foundation / Higher Question — AO1

#### 19 Toilet rolls come in packs of 4 and 9



£1.89



£3.99

Which pack is better value? You must show your working.

[3 marks]

#### Foundation Question – AO2

### 11 Tomas ran a Lucky Dip stall.



# **LUCKY DIP**



Tickets 50p

Tickets ending 00 win £12 Tickets ending 5 win £1.50

There were 750 tickets, numbered 1 to 750

Tomas sold all the winning tickets, and some of the losing tickets.

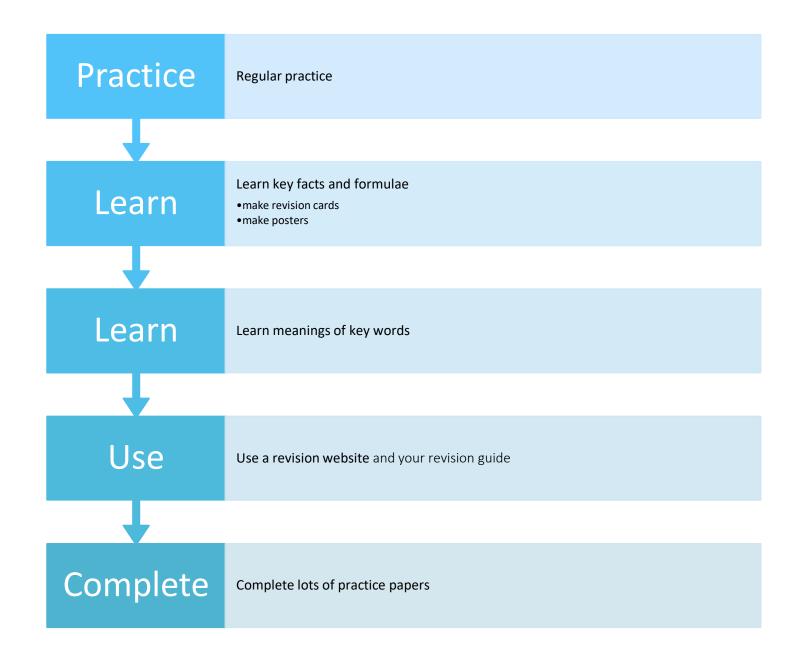
He made a profit of £163

How many losing tickets did he sell?

[6 marks]

# Higher Question – AO3

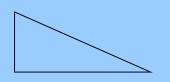
# How to Revise Maths



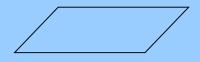
# Area



= length x width

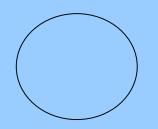


= base x height  $\div$  2



= length x height

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



 $= \pi r^2$ 

# Key Facts

SOH CAH TOA

BIDMAS a + a + a = 3a but  $a \times a \times a = a^3$ 

# Calculator buttons

square  $x^2$ , cube  $x^3$ square root  $\sqrt{3}$ , cube root  $\sqrt{3}$ powers xFractions

# Key Words

integer - whole number

evaluate - work out - get a number answer

construct - use a compass and ruler

factorise - put brackets in

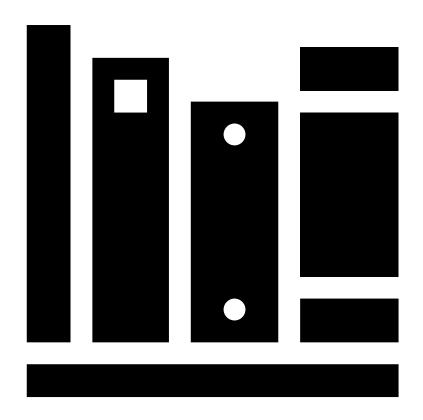
estimate - round each number to 1 significant figure before doing the calculation

# Maths Genie • Learn GCSE Maths for Free

https://cognitoedu.org/home.html

http://www.corbettmaths.com/5-a-day/gcse/

http://www.GCSEpod.com



# Revising English

# GCSE English Literature and GCSE English Language



GCSE English Literature

Two papers

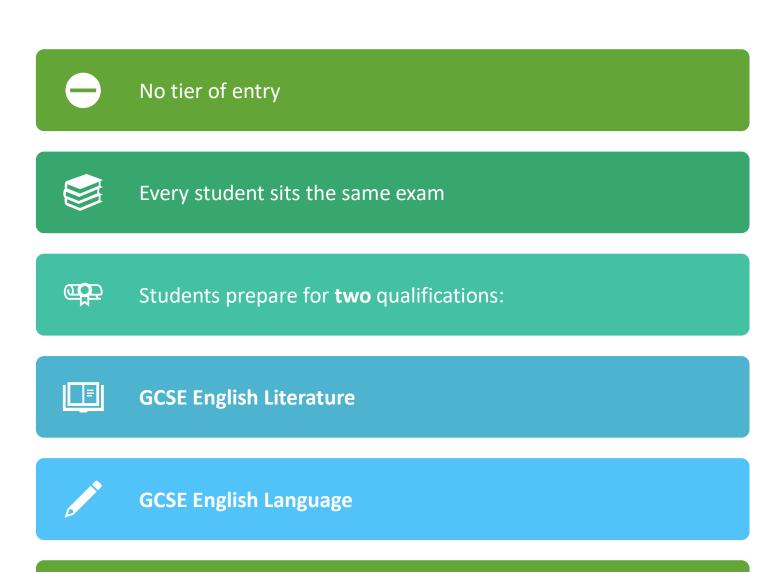
All 4 set texts plus unseen poetry



GCSE English Language Two papers

Both with Reading and Writing sections

# GCSE English Language and Literature



**Spoken Language endorsement-** does not count towards 'grade',

but is shown on certificate as Pass, Merit or Distinction

# What do I need?

A copy of the set texts- TAHS online shop-

### Year 10:

- Romeo and Juliet
- An Inspector Calls
- Anthology (provided in Year 9)

### Year 11:

A Christmas Carol

Patience, consistency and determination.

Highlighters – ideally 3 different colours for the different Language question focuses.

Revision Guides (CGP) will be available from the online shop.

# How do we prepare students in English?



Read texts in class/ set for homework



Supported with activities



Build skills for Language and Literature



Assessed 'like the GCSE'



SWaNS- focused feedback for improvement

# How we 'read' and 'analyse' in English

What is a writer saying?

**How** do they get their point across?

Why did they make that choice? What do they want us to feel or think?

0 2

Look in detail at this extract from lines 8 to 18 of the Source:

The wind came in gusts, at times shaking the coach as it travelled round the bend of the road, and in the exposed places on the high ground it blew with such force that the whole body of the coach trembled and swayed, rocking between the high wheels like

The driver, muffled in a greatcoat to his ears, bent almost double in his seat in a faint attempt to gain shelter from his own shoulders, while the dispirited horses plodded a drunken man. sullenly to his command, too broken by the wind and the rain to feel the whip that now and again cracked above their heads, while it swung between the numb fingers of the

The wheels of the coach creaked and groaned as they sank into the ruts on the road, and sometimes they flung up the soft spattered mud against the windows, where it mingled with the constant driving rain, and whatever view there might have been of the countryside was hopelessly obscured.

How does the writer use language here to describe the effects of the weather?

You could include the writer's choice of:

- words and phrases
- language features and techniques
- sentence forms.

[8 marks]

Shorter responses

# Romeo and Juliet

Read the following extract from Act 1 Scene 2 of Romeo and Juliet and then answer the At this point in the play Lord Capulet and Paris are discussing Juliet.

But now, my lord, what say you to my suit?

But saying o'er what I have said before:

My child is yet a stranger in the world, She hath not seen the change of fourteen years; Let two more summers wither in their pride,

Ere we may think her ripe to be a bride.

Younger than she are happy mothers made.

And too soon marred are those so early made.

The earth hath swallowed all my hopes but she; She's the hopeful lady of my earth. But woo her, gentle Paris, get her heart,

My will to her consent is but a part;

And she agreed, within her scope of choice Lies my consent and fair according voice.

0 2

Starting with this conversation, explain how far you think Shakespeare presents Lord Write about:

- how Shakespeare presents Lord Capulet in this extract • how Shakespeare presents Lord Capulet in the play as a whole.

[30 marks] AO4 [4 marks]

Longer essay style responses

# How can my child revise for English?

# Students need to read regularly

- 20 minutes three times a week
- Fiction or non-fiction the wider range the better
- Actively build vocabulary

# How can you help?

- Help them choose their reading books, especially if they have a narrow genre-based preference
- Listen to them read
- Read to them and with them
- Discuss what they're reading and discuss newspaper articles/contemporary events and issue with them
- Talk about and introduce them to new vocabulary
- Ask them how the writer gets their opinion across

# What can English revision look like?

Just reading things does not work

You have to 'fix' the information by writing it down.

### Exam question

In some countries an increasing number suffering from health problems as a resul much fast food. It is therefore necessary to impose a higher tax on this kind of foo

To what extent do you agree or disagree

Nowadays, more and more people are aff diabetes and heart disease which are link mass-produced food. Some people believ

food less affordable by laxing it highly. Despite the severity of the problem, I think this is quite wrong. Increasing the tax on fast food would unfairly penalise people and may not necessarily bring about the desired health

First, fast food is about more than just nutrition money on fast food not because they need to \$\epsilon\$ how they socialise. Fast-food restaurants provi for young people to meet friends. For another \$\epsilon\$ fast food can provide an inexpensive treat for the small pleasure in life could affect their social.

Another important point is that if the reason for obesity, it may be ineffective. It is true that fast and fat, all of which cause weight gain and are However, we also know that there are other fac risk of obesity, such as lack of exercise and ina While home-cooked food is generally healthy, t personally know a family that used to eat highenomous portions. They all suffered from heal

On the other hand, I do understand the point or drastic action is needed. If fast food were taxed people would be forced to seek out healthier opproducers would have an incentive to provide I

Take a longer piece of writing and highlight key points

Parents can ask students to:

- List the key words on a topic
- Explain the key words on the topic
- Explain the full answer with you using the key words as bingo cards
  - Teach you about a topic

Make short notes based on your key points

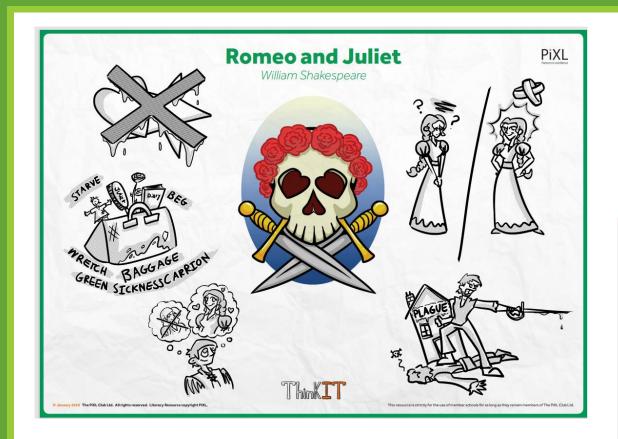




Then paraphrase trying to make it shorter

Tip 1: Make notes on notes

Until you get to key words





Get them to write 'notes without notes'

Write and answer their own questions

Complete test papers and parents read over them

Time your child to complete a practice question

Get them to 'teach' you, but have their notes and highlight everything they say

Use the internet to create notes

# TIP 2: Self test on the set texts

# TIP 3: Do It Properly

# Start with the hard stuff

A revision guide alone isn't revising

Vary your method motions th the main character within a text (pr the villain, or malignant force (antagonist) with one idea or topic(paragraph) a verse of a poem (stanza) a collection of sel a poem with no o a stanza with 4 | **Read difficult texts** words that have the movement o - really read them! a story (narrat

**Build up your** stamina

85 Why is a Describe What is a

88 What is the Big Bang Theory? ween longitudinal and transverse waves. What is ionic bonding? What is covalent bonding?

What is a hydrocarbon? What is a polymer?

What element is pre Why are metals goo

Vhat is the boiling p hat element is pres

What is a producer? What is the gestation pe

What is the equation for

Vary your texts

Take away distractions

# Useful websites

# **Useful Websites**

**BBC Bitesize GCSE English Language** 

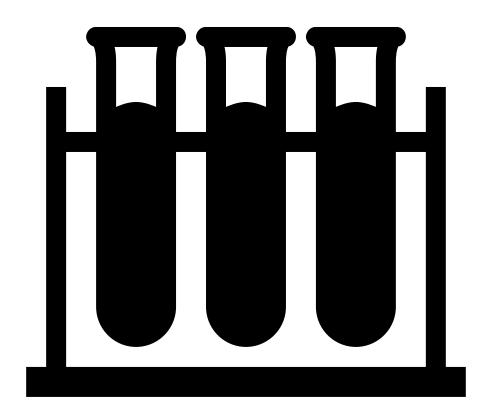
http://www.bbc.co.uk/education/subjects/zr9d7ty

**BBC Bitesize GCSE English Literature** 

http://www.bbc.co.uk/schools/gcsebitesize/english\_literature/

Youtube: Search for any "Mr Bruff" videos

**GCSE POD** 



# Revising Science

# AQA Biology, Chemistry and Physics (Students in Sets 1 and 2)

Higher Tier – grades 9-4 Foundation Tier – grades 5-1

2 exams in each subject, covering different topics

# **GCSE Biology:**

Paper 1: Topics 1–4: Cell biology; Organisation; Infection and response; and Bioenergetics.

Paper 2: Topics 5–7: Homeostasis and response; Inheritance, variation and evolution; and Ecology.

# **GCSE Chemistry:**

Paper 1: Topics 1–5: Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry, Chemical changes; and Energy changes.

Paper 2: Topics 6–10: The rate and extent of chemical change; Organic chemistry; Chemical analysis, Chemistry of the atmosphere; and Using resources.

## **GCSE Physics:**

Paper 1: Topics 1-4: Energy; Electricity; Particle model of matter; and Atomic structure.

Paper 2: Topics 5-8: Forces; Waves; Magnetism and electromagnetism; and Space physics.

Questions in paper 2 may draw on an understanding of energy changes and transfers due to heating, mechanical and electrical work and the concept of energy conservation from Energy and Electricity.

# AQA Combined Science (Trilogy) (Students in Sets 3, 4 and 5)

Higher Tier – grades 9-4 Foundation Tier – grades 5-1

2 exams in each subject (6 in total), covering different topics

# **Combined Science Biology:**

Paper 1: Biology topics 1–4: Cell Biology; Organisation; Infection and response; and Bioenergetics.

Paper 2: Biology topics 5–7: Homeostasis and response; Inheritance, variation and evolution; and Ecology.

## **Combined Science Chemistry:**

Paper 1: Chemistry topics 8–12: Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry; Chemical changes; and Energy changes.

Paper 2: Chemistry topics 13–17: The rate and extent of chemical change; Organic chemistry; Chemical analysis; Chemistry of the atmosphere; and Using resources.

## **Combined Science Physics:**

Paper 1: Physics topics 18–21: Energy; Electricity; Particle model of matter; and Atomic structure.

Paper 2: Physics topics 22–24: Forces; Waves; and Magnetism and electromagnetism.

Questions in paper 2 may draw on an understanding of energy changes and transfers due to heating, mechanical and electrical work and the concept of energy conservation from Energy and Electricity.

# What do I need?

Revision guide – order through school

2 Black Pens

Pencil

Ruler

**Protractor** 

Rubber

Scientific calculator

Word equation	Symbol equation
weight = $mass \times gravitational$ field strength	W = mg
force applied to a spring = spring constant $\times$ extension	F=ke
$acceleration = \frac{change in velocity}{time taken}$	$a = \frac{\Delta v}{t}$
■ momentum = mass × velocity	p = m v
$\label{eq:gravitational} \begin{split} & \text{gravitational potential energy} = \text{mass} \times \text{gravitational field} \\ & \text{strength} \times \text{height} \end{split}$	$E_p = mgh$
$power = \frac{work done}{time}$	$P = \frac{W}{t}$
efficiency = useful power output + total power input	
charge flow = current × time	Q = It
power = potential difference × current	P = VI
energy transferred = power $\times$ time	E = Pt
$density = \frac{mass}{volume}$	$ \rho = \frac{m}{V} $
work done = force × distance (along the line of action of the force)	W = Fs
distance travelled = speed $\times$ time	s = vt
resultant force = mass × acceleration	F = m a
kinetic energy = $0.5 \times \text{mass} \times (\text{speed})^2$	$E_k = \frac{1}{2} m v^2$
$power = \frac{energy transferred}{time}$	$P = \frac{E}{t}$
$efficiency = \frac{useful output energy transfer}{total input energy transfer}$	

wave speed = frequency $\times$ wavelength	$v = f\lambda$
potential difference = current × resistance	V = IR
power = $current^2 \times resistance$	$P = I^2 R$
energy transferred = charge flow $\times$ potential difference	E = QV

## **GCSE Physics only**

$pressure = \frac{force \ normal \ to \ a \ surface}{area \ of \ that \ surface}$	$p = \frac{F}{A}$
moment of a force = force $\times$ distance (normal to direction of force)	M = Fd



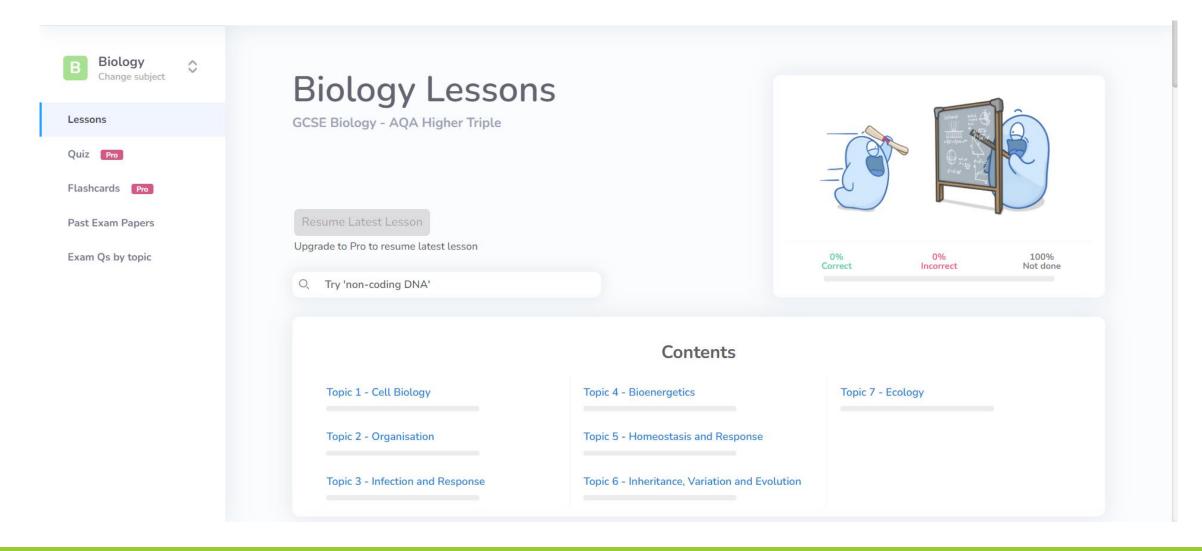
Write down the equation which links density  $(\rho)$ , mass (m) and volume (V). [1 mark] The mass of the apple was 85 g. The density of the apple was 0.68 g/cm<sup>3</sup>. Calculate the volume of the apple. Give your answer in cm<sup>3</sup>. [3 marks]

1	pressure due to a column of liquid = height of column × density of liquid × gravitational field strength (g)	ρ = h ρ g		
2	2 (final velocity) <sup>2</sup> – (initial velocity) <sup>2</sup> = $2 \times \text{acceleration} \times \text{distance}$			
3	force = change in momentum time taken			
4	elastic potential energy = 0.5 × spring constant × (extension) <sup>2</sup>			
5	change in thermal energy = mass $\times$ specific heat capacity $\times$ temperature change	$\Delta E = m c \Delta \theta$		
6	$period = \frac{1}{frequency}$			
7	$magnification = \frac{image \ height}{object \ height}$			
8	force on a conductor (at right angles to a magnetic field) carrying a current = magnetic flux density × current × length	F = B I !		
9	thermal energy for a change of state = mass $\times$ specific latent heat	E = m L		
10	$\frac{\text{potential difference across primary coil}}{\text{potential difference across secondary coil}} = \frac{\text{number of turns in primary coil}}{\text{number of turns in secondary coil}}$	$\frac{V_{p}}{V_{s}} = \frac{n_{p}}{n_{s}}$		
11	potential difference across primary coil $\times$ current in primary coil = potential difference across secondary coil $\times$ current in secondary coil	$V_p I_p = V_s I_s$		
12	For gases: pressure × volume = constant	p V = constant		

# How to revise

- 1. Read/Watch and do something with the information (summary notes, flashcards, quick summary questions).
- 2. Practise applying your understanding (questions, questions and more questions)
- 3. Revisit the learning (next day, 3 days, 2 weeks)
- 4. Develop exam technique by working through exam questions from Cognito or the AQA website.









### Lessons

Quiz Pro

Flashcards Pro

Past Exam Papers

Exam Qs by topic

### Topic 1 - Cell Biology

1.1 - Cell Structure

1.2 - Kingdoms of Life

1.3 - Microscopy - What it is

1.4 - Microscopy - Light vs Electron Microsco...

1.5 - Microscopy - Units of conversion

1.6 - Microscopy - Calculations

1.7 - Mitosis

1.8 - Binary Fission

1.9 - Stem Cells

1.10 - Specialised Cells & Differentiation

1.11 - Stem Cells in Medicine

1.12 - Diffusion

1.13 - Osmosis

1.14 - Active Transport

1.15 - Surface Area to Volume Ratio

1.16 - Specialised Exchange Surfaces

### **Topic 2 - Organisation**

2.1 - Cell organisation, tissues, organs etc

2.2 - What are enzymes

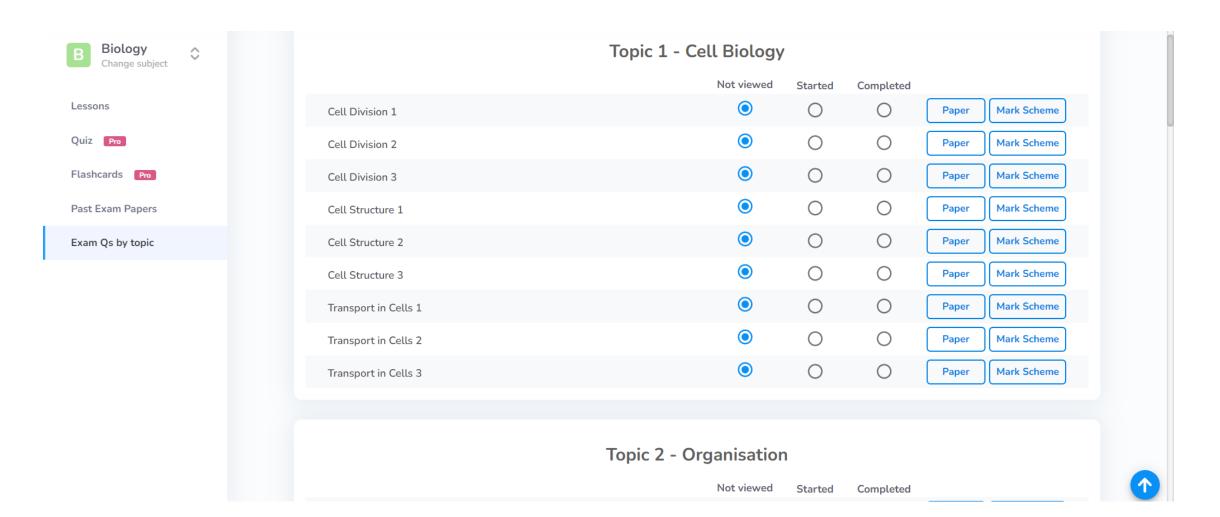
2.7 - Lungs & Gas Exchange

28 - Circulatory System 1 - Heart

2.13 - Balanced Diet

2.14 - Risk factors for Non-Communicable Di





https://cognitoedu.org/home.html

**Useful Websites** 

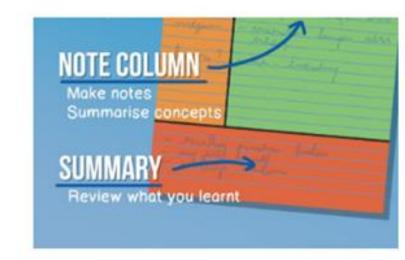
https://www.aqa.org.uk/subjects/science/gcse

www.GCSEpod.com





Schedule the revision of harder topics for the morning when you will be most awake. This stops you using tiredness as an excuse for leaving the harder topics until the next day. **MANAGE YOUR TIME** Break your revision down and give yourself a certain amount of content to learn each day.



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Geography

History

**Expressive Arts** 

Extra Curricular

Modern Foreign Languages

Music

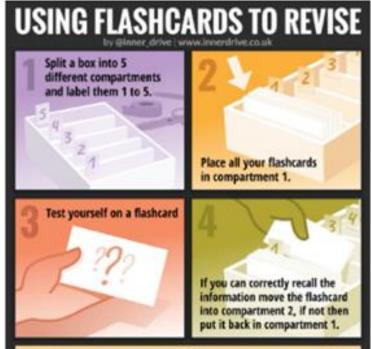
**Physical Education** 

**Religious Education** 

Science

Social & Health





# What next?

Y11 revision support as part of the tutor programme

Revision interventions run by departments, lunchtime, after school, holidays and weekends.

Revision materials on TAHS website.

Y11 SEND Revision Evening Thursday 26th October 5pm

Trial Exams start Monday 6<sup>th</sup> November 2023

Summer Exam Session starts Monday 6th May 2024

Parent Resources - GCSEPod

How Parents Can Help Improve Grades (innerdrive.co.uk)

# Revision starts now







**PREPARATION** 



HARD WORK



**SUPPORT** 



# Year 11 Revision Evening Thursday

21st September 2023

SUPPORT FOR REVISION - ENGLISH, MATHS AND SCIENCE

