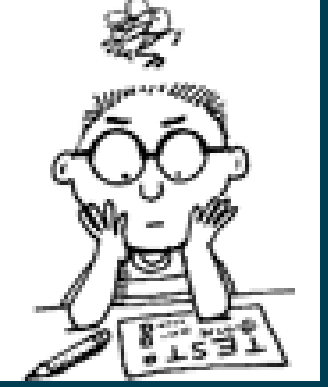
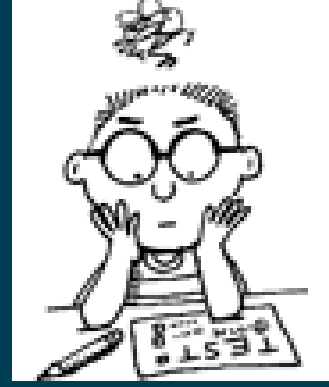
NORTHGATE

High School

Year 11 Revision Advice

Wednesday, 4th February 2026





Revising for Maths, English and Science

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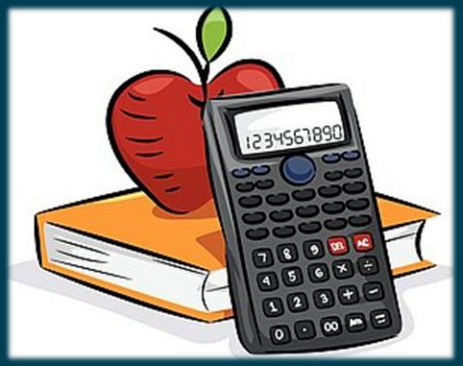
Maths (OCR)



www.northgatemaths.co.uk

Password = pencil

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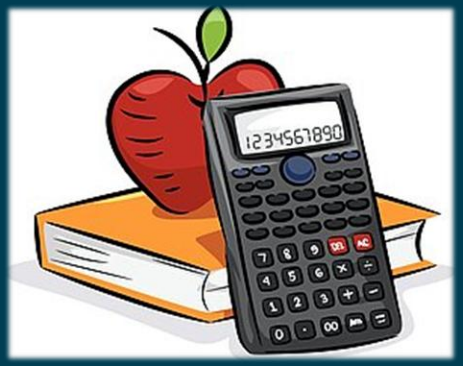
Maths (OCR)



- Start your revision with a past paper
- Attempt <u>every</u> question
- Mark questions as you go
- Watch screencasts when you are not sure how to do a question – red pen
- Revise ‘little and often’

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Northgate High School Maths Revision Portal

Tips and Tools to prepare for your exams

110 Days 17 Hours 10 Mins ...to make a difference!

Welcome to the maths revision portal for Northgate High School students.

Papers and Screencasts

How to revise

Click a button or use the menu above to navigate

Assessment Information

Topic Practice

Maths Advice

- Resist the urge to use the screencasts to just copy answers.
- Use them as an **aid** to prompt prior learning.
- You need to be ***doing*** the Maths, **not copying** the Maths, as this will develop the deeper learning.
- There is a screencast on how to use screencasts on the 'How to Revise' page of the website.

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English Language (AQA)

- Many Year 11s seem to believe the myth that you cannot revise for English Language because it is skills-based.
  - This is wrong! It is vital that you practise language questions using the timings and techniques that you have been taught.

English Language (AQA)

- Use the language **past papers** provided or take them from outside L23
  - Ask your teachers
- Always work to teacher-taught **timings** per question.
- Learn the key **techniques** for each reading-style question.
- Practise lots of **plans** for the writing sections. Structure and organisation are worth 24 marks out of 40
- Work on **openings/endings** and creating a carefully-structured written answer

English Literature (AQA)

Try using **flashcards** …little and often

- **On one side**:
  - Put the **quotation** you need to learn.
- **On the other side**:
  - **Who** said it?
  - **When**?
  - **How** is it said?
    - Language devices
  - **Why** is it important?
  - How does it connect to the message or key themes of the text?
    of the play/novel/poem?

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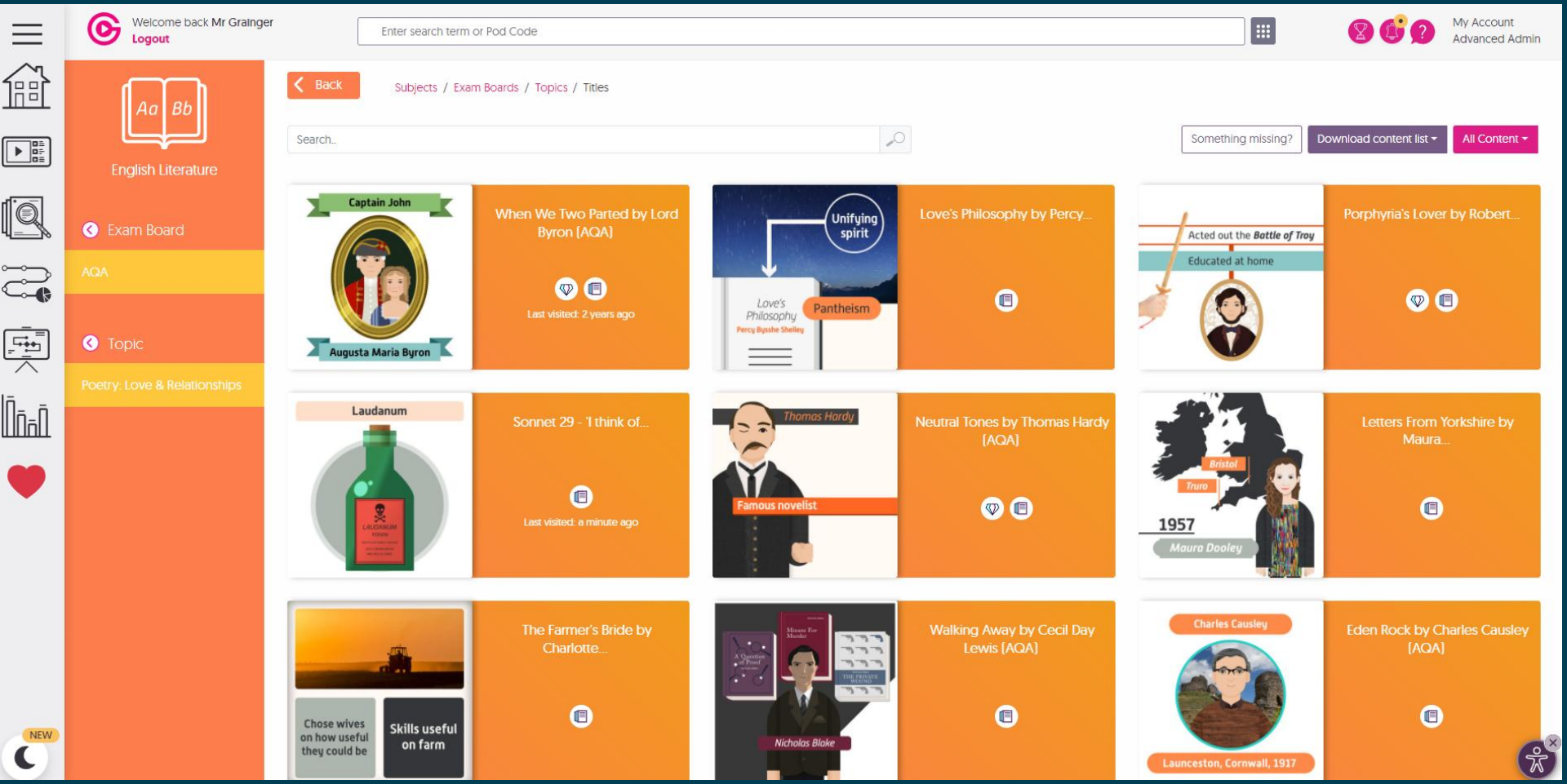
GCSEpod – videos on all exam texts



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Mr Bruff - Youtube

Mr Bruff
310K subscribers

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HOME VIDEOS PLAYLISTS COMMUNITY CHANNELS ABOUT

AQA English Language Playlists

AQA English Language Paper 1
Mr Bruff
Updated 7 days ago
VIEW FULL PLAYLIST

AQA English Language Paper 2
Mr Bruff
Updated 7 days ago
VIEW FULL PLAYLIST

Full Marks Exam Answers: English Language
Mr Bruff
VIEW FULL PLAYLIST

Grammar
Mr Bruff
VIEW FULL PLAYLIST

GCSE Poetry: Choose Your Cluster

AQA 'Power and Conflict' Poetry
Mr Bruff
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AQA 'Love and Relationships' Poetry
Mr Bruff
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Edexcel 'Conflict' Poetry
Mr Bruff
VIEW FULL PLAYLIST

Edexcel 'Relationships' Poetry
Mr Bruff
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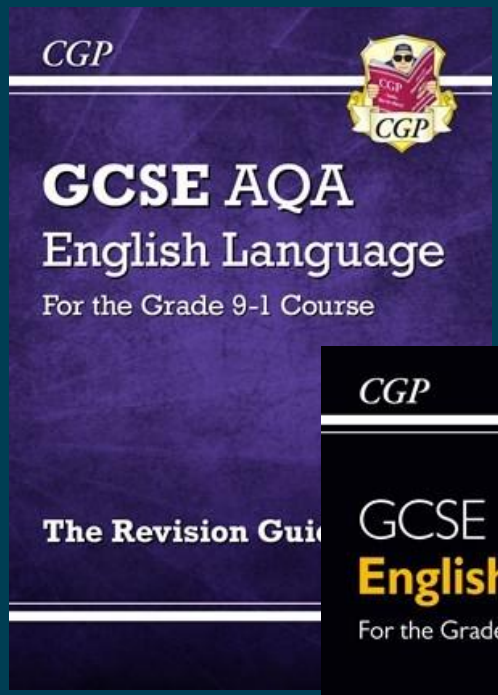
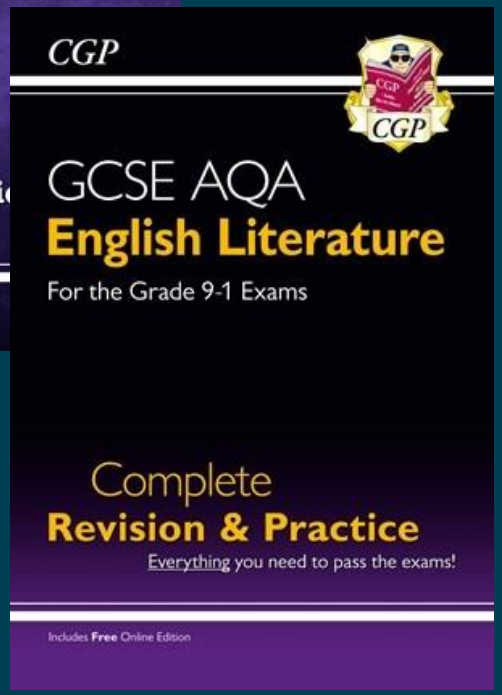
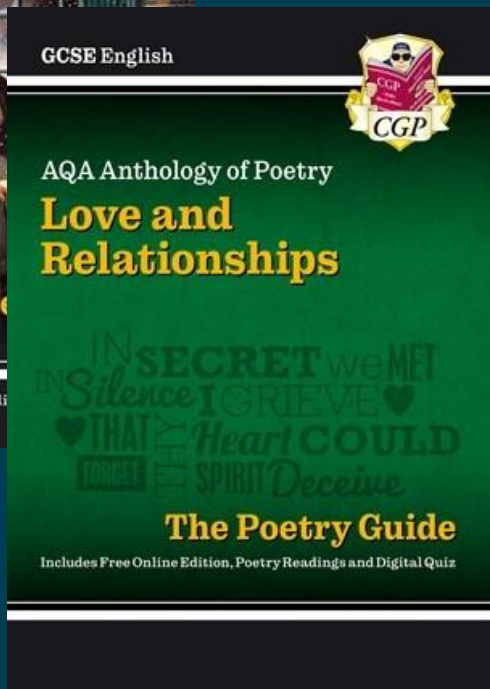
Edexcel 'Time and Place' Poetry
Mr Bruff
VIEW FULL PLAYLIST

OCR 'Love & Relationships' Poetry
Mr Bruff
VIEW FULL PLAYLIST

English Revision Guides







AQA GCSE English Revision

Paper 1 – Shakespeare and the 19th-century Novel

- Section A: Macbeth
- Section A: Romeo and Juliet
- Section B: The Strange Case of Dr Jekyll and Mr Hyde
- Section B: A Christmas Carol

Paper 2 – Modern Texts and Poetry

- Section A: An Inspector Calls
- Section B: Poetry: Love and Relationships
- Section B: Poetry: Power and Conflict
- Section C: Unseen Poetry

Macbeth

Notes

- Brief Overview
- Context
- Glossary of Key Terms
- Key Terms Flashcards

Exam Prep

- Guide to Paper 1 - AQA English Literature GCSE
- Guide to Paper 1
- How to plan and write a top mark essay - English Literature GCSE
- How to plan and write a top mark essay

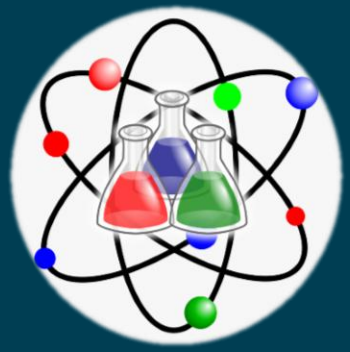
Character Profiles

- Banquo
- Lady Macbeth (Brief)
- Macbeth (Brief)
- Macduff
- The Witches

Themes

- Abuse of Power and Kingship
- Ambition
- Appearance vs Reality
- Gender
- Guilt, Innocence and Paranoia

Sciences (AQA)



- **Test** (using exam paper questions, **Educake.co.uk** quizzes and criteria sheets).
- **Diagnose** 'weak areas'.
- **Address** weak areas (using the revision guides, videos and the Learning Portal resources).
- Don't forget the **required practicals**, the other **practical skills** and the **maths skills**.

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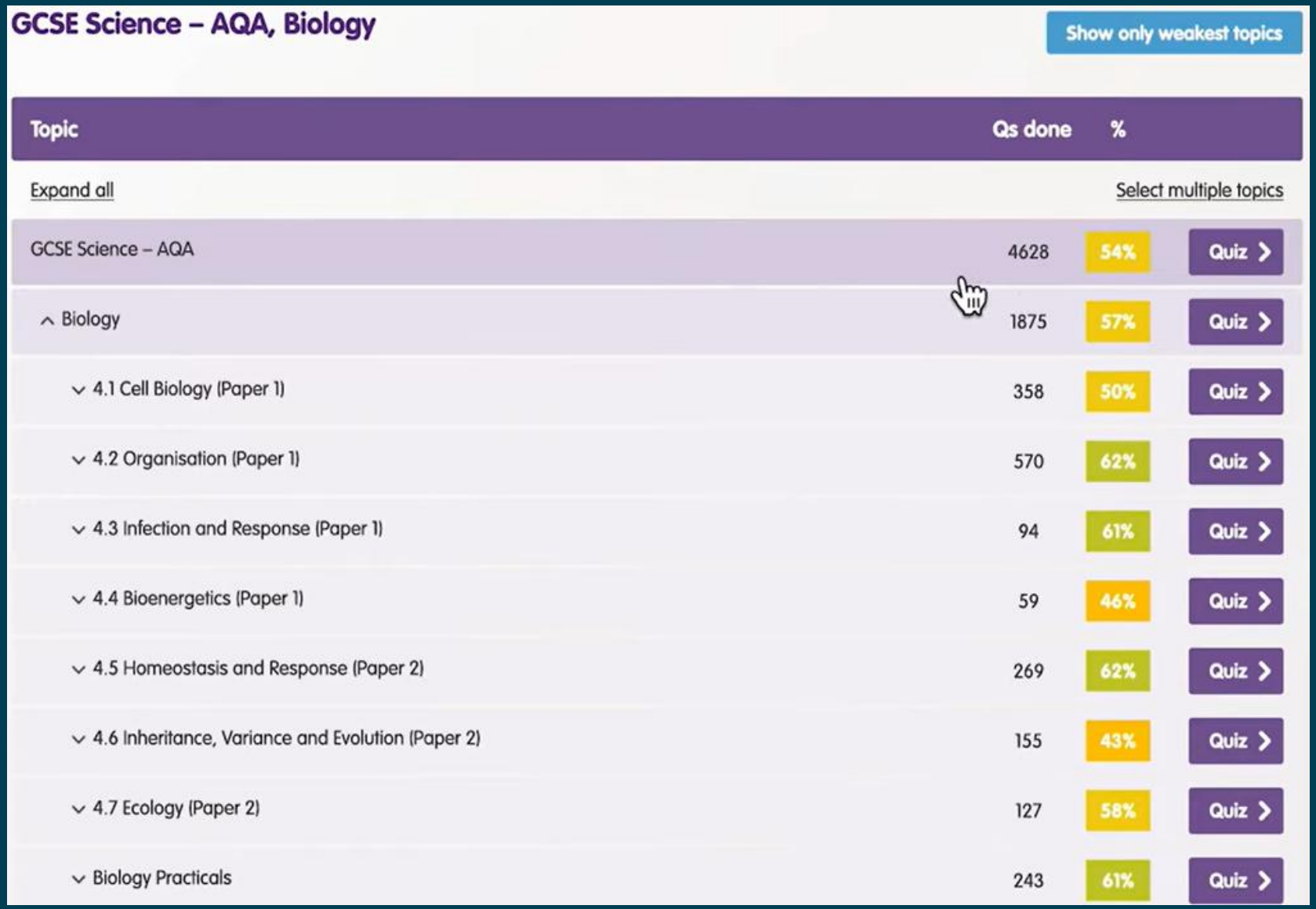
Educake.co.uk

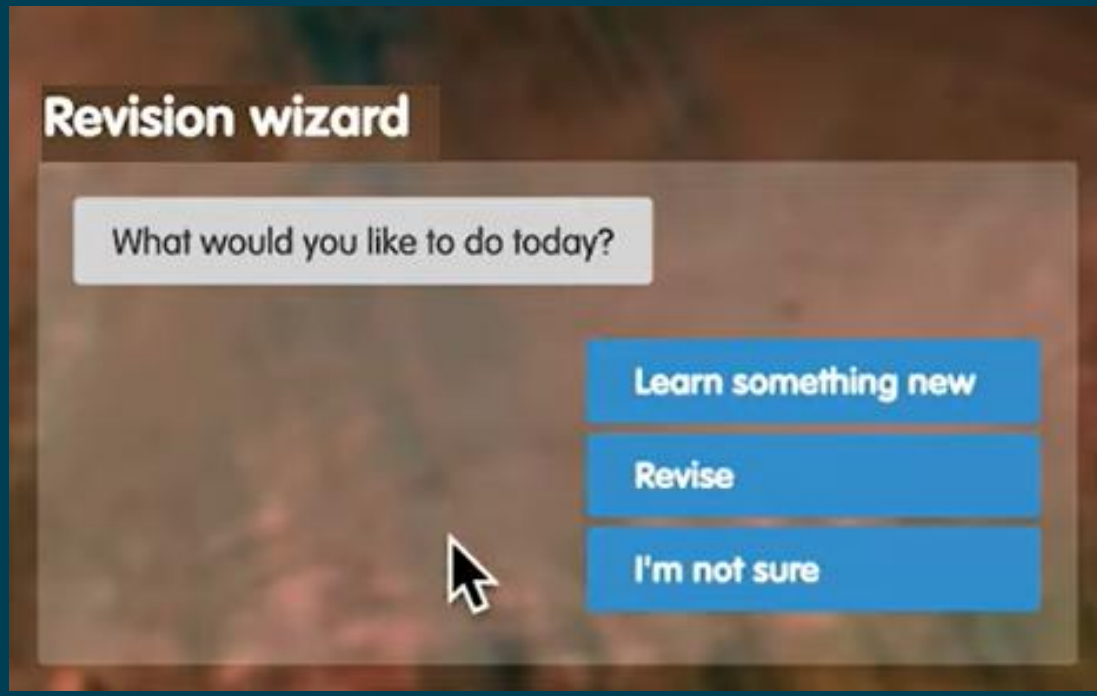
Helps to organise revision by showing progress in every section.



Educake.co.uk

Use the Revision wizard to create a tailor-made revision quiz just for you.

- Analyses past performance
- Focuses on topics you've found tricky
- Builds in spaced practice to help with long-term memory



Educake.co.uk

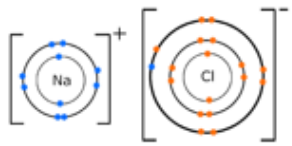
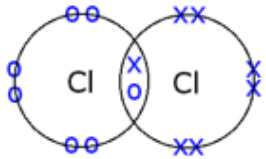
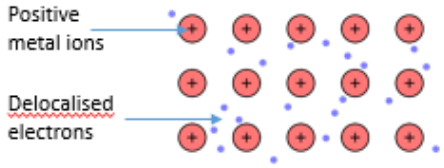
You have completed over 108,000 Educake questions since September.

Great job Year 11!

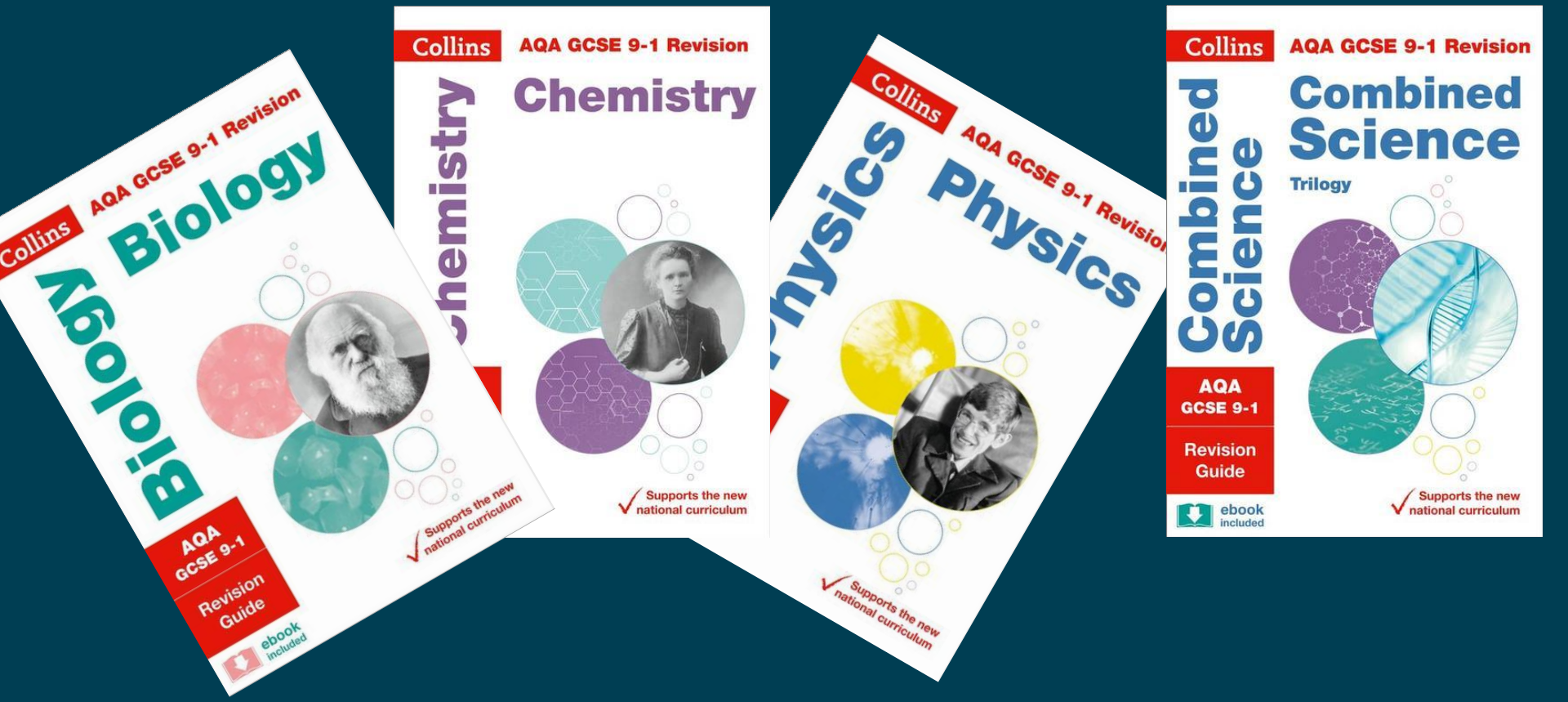
Keep going!

How to use Educake: Video link

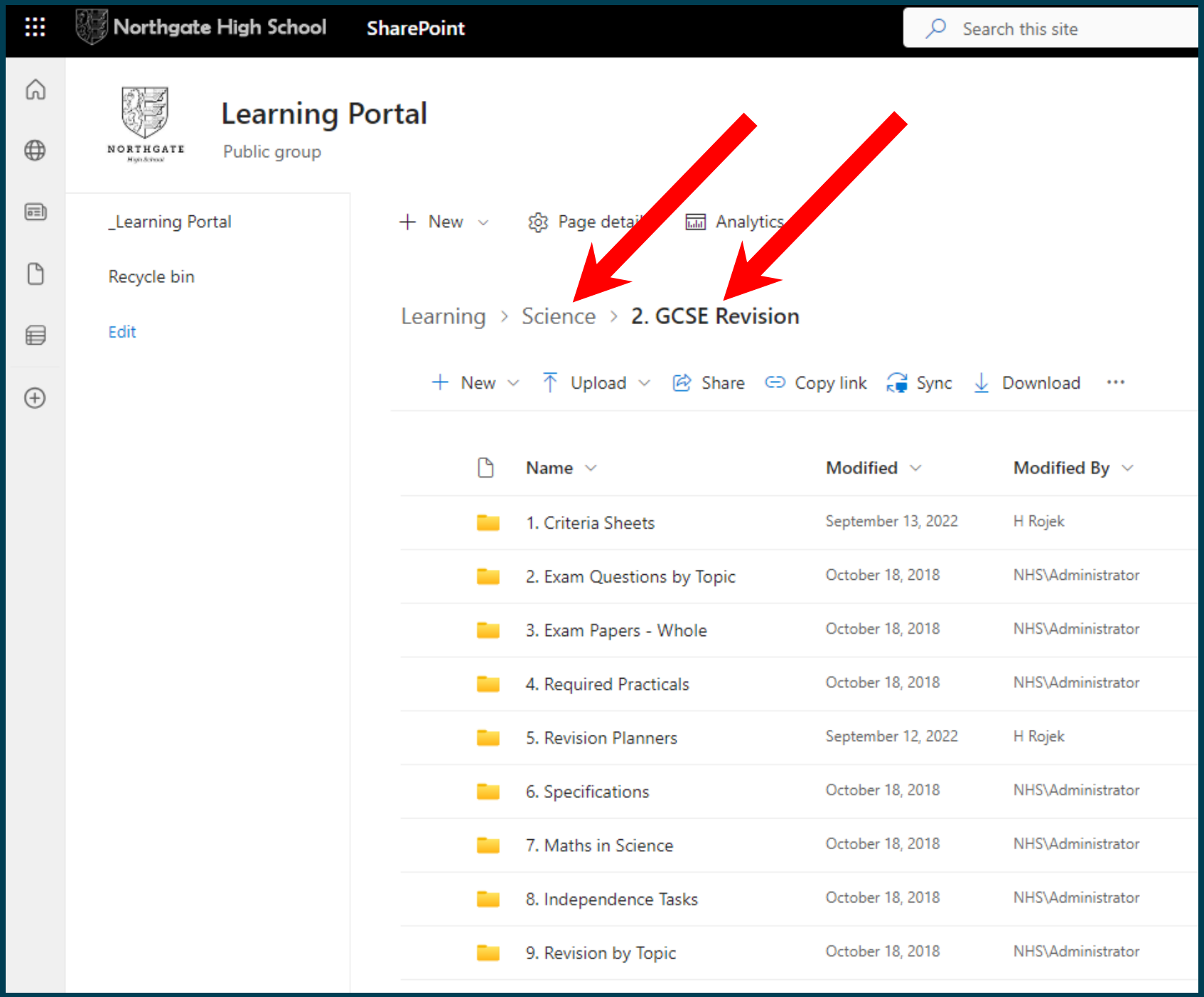
Flash Cards

Question: 1. What is the bonding between a metal and a non-metal? 2. Draw an example.	Answer: Ionic bonding 
Question: 1. What is the bonding between two non-metals? 2. Draw an example.	Answer: Covalent bonding 
Question: 1. What is the bonding between two metals? 2. Draw an example.	Answer: Metallic bonding 
Question: How is a giant ionic structure held together? *(use the correct words)*	Answer: Positive and negative ions held together in a lattice by a strong electrostatic force of attraction
Question: What are the limitations of using dot and cross, ball and stick and 2D or 3D diagrams to represent molecules?	Answer: 2D – shows the bonds, but not what they actually look like 3D – shows what they look like, but not the bonds and can be confusing

Revision Guides



The Learning Portal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2. GCSE Revision
New
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Sync
Download
Name
Modified
Modified By
1. Criteria Sheets
September 13, 2022
H Rojek
2. Exam Questions by Topic
October 18, 2018
NHS\Administrator
3. Exam Papers - Whole
October 18, 2018
NHS\Administrator
4. Required Practicals
October 18, 2018
NHS\Administrator
5. Revision Planners
September 12, 2022
H Rojek
6. Specifications
October 18, 2018
NHS\Administrator
7. Maths in Science
October 18, 2018
NHS\Administrator
8. Independence Tasks
October 18, 2018
NHS\Administrator
9. Revision by Topic
October 18, 2018
NHS\Administrator

Criteria Sheets

Topic 4. Bioenergetics – Criteria sheet

4.1 Photosynthesis

Photosynthetic reaction - p.42

Specification Content	☹	😐	☺
Photosynthesis is represented by the equation: carbon dioxide + water $\xrightarrow{\text{light}}$ glucose + oxygen			
Recognise the chemical symbols: CO_2, H_2O, O_2 and $C_6H_{12}O_6$.			
Describe photosynthesis as an endothermic reaction in which energy is transferred from the environment to the chloroplasts by light.			

Rate of photosynthesis - p.42-43

Specification Content	☹	😐	☺
Explain the effects of temperature, light intensity, carbon dioxide concentration, and the amount of chlorophyll on the rate of photosynthesis.			
Be able to:			
· **measure** and **calculate** rates of photosynthesis			
· **extract** and **interpret** graphs of photosynthesis rate involving one limiting factor			
· **plot** and **draw** appropriate graphs selecting appropriate scale for axes			
· **translate** information between graphical and numeric form.			
(HT only) These factors interact and any one of them may be the factor that limits photosynthesis.			
(HT only) Students should be able to explain graphs of photosynthesis rate involving two or three factors and decide which is the limiting factor.			
(HT only) Students should understand and use inverse proportion – the inverse square law and light intensity in the context of photosynthesis.			
(HT only) Limiting factors are important in the economics of enhancing the conditions in greenhouses to gain the maximum rate of photosynthesis while still maintaining profit.			
(HT only) WS 1.4 Use data to relate limiting factors to the cost effectiveness of adding heat, light or carbon dioxide to greenhouses.			
RPA 6 **Investigate** the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed.			

Exam questions by Topic

_Learning Portal > Science > 2. GCSE Revision > 2. Exam Questions by Topic > Combined Science > Biology > **Topic 1 - Cell Biology**

Name	Modified	Modified By	Shared With	Shared With De...
Combined Biology, Topic 1, Level 1 - Mark Schemes.pdf	October 31, 2018	D Elmer		
Combined Biology, Topic 1, Level 1 - Questions.pdf	October 31, 2018	D Elmer		
Combined Biology, Topic 1, Level 2 - Mark Schemes.pdf	October 31, 2018	D Elmer		
Combined Biology, Topic 1, Level 2 - Questions.pdf	October 31, 2018	D Elmer		
Combined Biology, Topic 1, Level 3 - Mark Schemes.pdf	October 31, 2018	D Elmer		
Combined Biology, Topic 1, Level 3 - Questions.pdf	October 31, 2018	D Elmer		

Required Practical Videos

_Learning Portal > Science > 2. GCSE Revision > 4. Required Practicals > Videos > **Chemistry**

Name	Modified	Modified By
Chromatography 1..mp4	October 30, 2018	D Elmer
Chromatography 2..mp4	October 30, 2018	D Elmer
Electrolysis 1.mp4	October 30, 2018	D Elmer
Electrolysis 2.mp4	October 30, 2018	D Elmer
Identifying Ions 1 - Triple Only.mp4	October 30, 2018	D Elmer
Identifying Ions 2 - Triple Only.mp4	October 30, 2018	D Elmer
Making Salts 1.mp4	October 30, 2018	D Elmer
Making Salts 2.mp4	October 30, 2018	D Elmer
Neutralisation 1 - Triple Only.mp4	October 30, 2018	D Elmer
Neutralisation 2 - Triple Only.mp4	October 30, 2018	D Elmer
Rates of Reaction 1.mp4	October 30, 2018	D Elmer

Chemistry Triple and Combined Science

Water Purification

Analysis and purification of water samples from different sources, including pH, dissolved solids and distillation.

Method

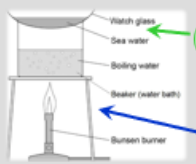
Testing for pH
- Remove a small sample of the **sea water**.
- Test using **universal indicator solution** or universal indicator **paper**.
- **Compare** the colour to a **colour chart**.
- **Repeat** for **spring water** and **rain water**.

Testing for dissolved solids
- **Weigh** a **watch glass** and fill it with 4 cm^3 of **sea water**.
- **Heat** over a beaker of **boiling water**.
- When all the water has **evaporated** from the watch glass, **reweigh** it.
- **Subtract** the initial mass to find the mass of the dissolved solids.
- **Repeat** with the other water samples.

Distillation
- Pour some of the sea water sample into a **conical flask**.
- Place on a tripod over a **Bunsen burner**.
- Attach a **delivery tube** to the top, going to a test tube in a beaker of **ice cold water**.
- **Heat** the conical flask to **boil** the sea water.
- The water molecules will **evaporate** off and then **condense** inside the test tube.
- Ensure that the end of the delivery tube does not go under the water being collected.

Checking for purity after distillation
- **Repeat** the **dissolved solids test** and the **pH test** with the **distilled water** and compare the result to those collected before.

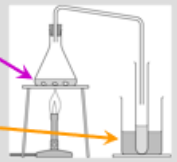
The set-up



Place impure water in a watch glass over a water bath

Heat to evaporate the water, leaving dissolved solids behind

Heat to evaporate and distil the water



Ice cold water in the beaker will condense the pure water

Check out some videos here

Analysing Data

Water Sample	pH	Mass (g)		
		Watch Glass	Watch Glass + Dissolved Solids	Dissolved Solids
Sea	8.1	30.23	30.38	0.15
Spring	6.5	30.23	30.24	0.01
Rain	5.5	30.23	30.23	0.00
Distilled	7.0	30.23	30.23	0.00

pH test results
- **Sea** water is slightly **alkaline**. This is due to **carbonates** dissolved in the water.
- **Rain** water is naturally **acidic** due to carbon dioxide dissolving in it to form **carbonic acid**.
- **Spring** water **varies**, depending on the source it is collected from and the **rocks** and **soil** it has run through.
- **Distilled** water has **nothing** dissolved in it, so has a pH of 7 - **neutral**.

Dissolved solids results
- **Sea** water has lots of dissolved **salts**, which are left behind when the **water** has **evaporated** away.
- **Spring** water has **more** dissolved solids than **rain** water because it has run through the **ground** and will have dissolved some solids on the way.
- **Distilled** water will have **no** dissolved solids - they are **left behind** during distillation because they **don't evaporate**.

Potable water
- **Distilled** water will be **pure**. It will contain **no solids or dissolved substances**. It is therefore safe to drink (potable).
- **Potable** water can still contain **some** dissolved substances, but must have **low enough** levels of **microbes** and dissolved **salts** to be **safe to drink**.

Limitations and Sources of Error

- Any water droplets left in/on the watch glass will affect the mass recorded and cause inaccurate results.
- If the impure water is heated too rapidly, it will **boil over** and send impure water through the delivery tube. This will **contaminate** the product.
- If the end of the delivery tube goes under the water being collected, **suck-back** will occur when the heat source is removed (as the gases contract).

Improvements

- **Dry** the watch glass carefully on the bottom and ensure that all the water has **evaporated** before reweighing.
- Use an **electric heater** to heat the impure water **gently** to ensure that it does not boil over, or remove the Bunsen burner when bubbles become too vigorous.
- Using a more complex **condenser** means that the end of the delivery tube can be suspended higher above the collection vessel.

Physics Triple and Combined Science

Density

Use appropriate apparatus to make and record the measurements needed to determine the densities of regular and irregular solid objects and liquids.

Volume should be determined from the dimensions of regularly shaped objects and by a displacement technique for irregularly shaped objects.

Method

Testing regular solid objects
- Use a **ruler** to measure the object's **length**, **width** and **height** to the **nearest millimetre** (mm). **Convert** into metres (m).
- Calculate the object's volume in m^3.
- Use an **electronic balance** to record the **mass** of the object to the nearest gram (g).
- **Convert** mass into kilograms (**kg**).
- Calculate **density** in kg/m^3.

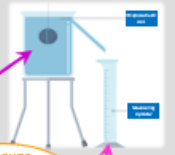
Testing irregular solid objects
- Measure the object's **mass** using an **electronic balance**, in g. **Convert** to kg.
- Fill a **displacement can** with **water**, stand it on a tripod and allow the water to drain until no more comes out of the spout.
- Place a **measuring cylinder** under the spout.
- Lower the object into the displacement can (this can be done using a piece of **cotton**).
- Water will be displaced out of the spout into the measuring cylinder.
- Record the **volume** of water displaced (the object's volume) in cm^3. **Convert** to m^3.
- Use the data to calculate density.

Testing liquids
- Measure the **volume** of some of the liquid in a **measuring cylinder** in cm^3. **Convert** to m^3.
- Place an empty **beaker** on an **electronic balance** and record its mass in g.
- Pour the liquid into the beaker.
- Record the new mass in g.
- **Subtract** the empty beaker mass to calculate the liquid's **mass**. **Convert** to kg.

The set-up

Use a ruler for regular objects

Measure to the nearest mm, then convert to m



Use a displacement can for irregular objects

Measure mass in kg on an electronic balance

Measure the volume displaced in a measuring cylinder

Check out some videos here

Analysing Data

Regular object	Size measurements (m)			Volume (m^3)	Mass (kg)	Density (kg/m^3)
	Length	Width	Height			
1	0.107	0.067	0.049	0.000351	0.943	2,684
2	0.058	0.048	0.034	0.000095	0.682	7,205
3	0.081	0.065	0.030	0.000158	1.406	8,902

Outcomes
- **For the regular solid objects:**
  - **Compare** the calculated densities to values for 'known' substances.
  - In this example, object 1 is **closest to aluminium**, object 2 is **zinc** and object 3 is **copper**.
- **For the irregular solid objects and for liquids:**
  - Density is calculated in exactly the same way from the mass and volume measurements.
  - Density is usually calculated in kg/m^3, but can sometimes be calculated in g/cm^3.

Known substances	Density (kg/m^3)
Aluminium	2,720
Titanium	4,500
Zinc	7,135
Copper	8,940
Lead	11,340
Gold	19,320

Converting Lengths and Masses
- There are 1,000 mm in 1 m.
- So, 81 mm $= \frac{81}{1,000} =$ **0.081 m**
- There are 1,000 g in 1 kg.
- So, 1,406 g $= \frac{1,406}{1,000} =$ **1.406 kg**

Density
- Density $= \frac{\text{Mass}}{\text{Volume}}$
- That's $\rho = \frac{m}{v}$
- e.g. $\rho = \frac{1.406\ kg}{0.000158\ m^3} = 8,902\ kg/m^3$

Volume
- Multiply all sides together.
- e.g. 0.081 × 0.065 × 0.010 = **0.000158 m^3**
- Also, 1,000,000 cm^3 are in 1 m^3.
- So, divide by 1,000,000 if you need to convert from cm^3 to m^3.

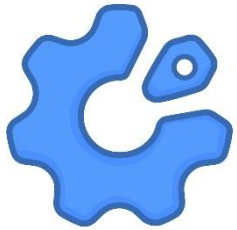
Limitations and Sources of Error

- Larger measuring cylinders have a lower **resolution**, leading to more **uncertainty** in the volume measurement.
- **Viewing** the measuring cylinder incorrectly can lead to inaccurate volume measurements.
- For irregular objects, the volume recorded will be inaccurate if the object does not completely **submerge**.

Improvements

- Use the **smallest** measuring cylinder possible for the volume being measured, to **maximise resolution**.
- Always view the measuring cylinder at **eye level** and read the volume from the **bottom of the meniscus**.
- For objects less dense than water, use a thin needle to push the object **below** the surface of the water.

Cognito



Daily goal

0 XP 0 / 150

T W T F S S M

Courses GCSE

Biology

GCSE - AQA Higher Triple

Continue

Chemistry

No course selected

+ Add course

Physics

No course selected

+ Add course

Maths

No course selected

+ Add course

Cognito

Biology

GCSE Biology - AQA Higher Triple

Study multiple subtopics

Build a quiz or flashcard deck tailored to you by selecting multiple subtopics.

Video lessons | Quiz | Flashcards | **Exam practice** | Past papers

Search

Collapse all

Topic 1 - Cell Biology

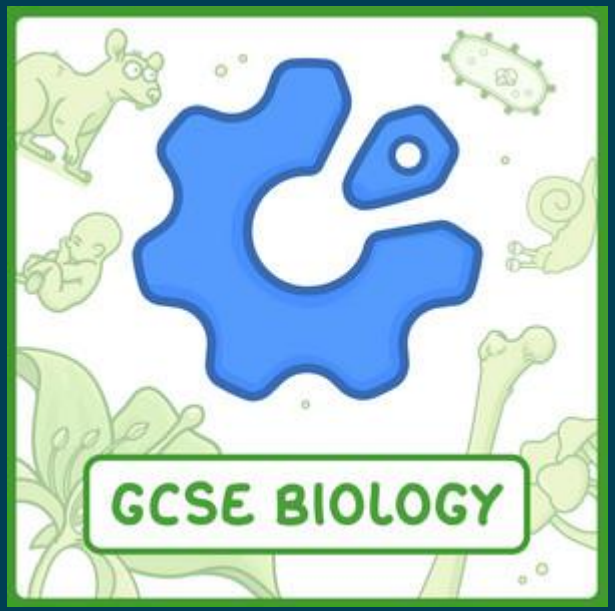
- 1.1 - Cell Structure & Microscopy
- 1.2 - Cell Division, Differentiation & Stem Cel...
- 1.3 - Transport in Cells

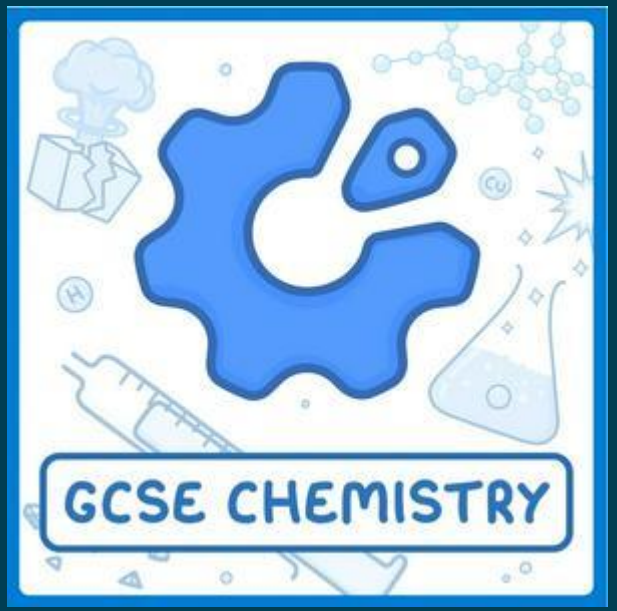
Topic 2 - Organisation

- 2.1 - Enzymes
- 2.2 - Digestive System & Biological Molecules
- 2.3 - Cardiovascular & Respiratory System
- 2.4 - Health, Disease & Medicine
- 2.5 - Plant Tissues, Organs & Systems

Cognito

- Also on Spotify……





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Videos

GCSE Chemistry, Physics & Biology

Biology Paper 1

- Cell Biology
- Organisation
- Infection and Response
- Bioenergetics
- Required Practicals

Chemistry Paper 1

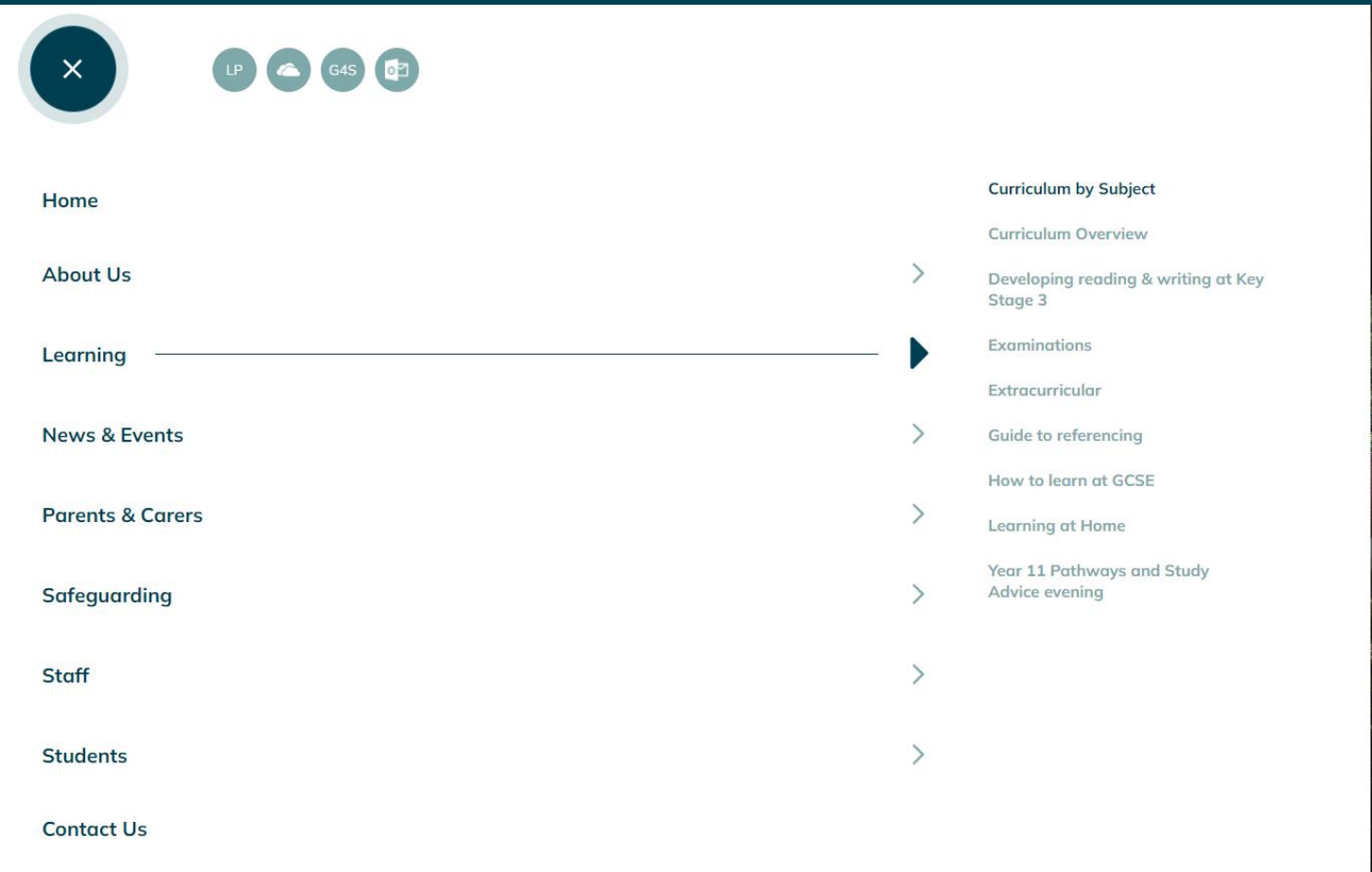
- Atomic Structure and the Periodic Table
- Structure and Bonding
- Quantitative Chemistry
- Chemical Changes
- Energy Changes
- Required Practicals

Physics Paper 1

- Energy
- Electricity
- Particle Model of Matter
- Atomic Structure and Radioactivity
- Required Practicals

Options Subjects

- Information and advice can be found on the school website: [Learning > Curriculum by Subject]



Geography

Key Stage 4

Revision Advice

A subject specific guide featuring key content, recommended resources and the specifications we cover in that particular subject can be downloaded below:

GEOGRAPHY REVISION ADVICE

How Can Parents Help?

1. Check that your son/daughter is making full use of all the resources and support available:
We have worked hard to provide resources that will help with revision. Please check that your son/daughter is using these resources.

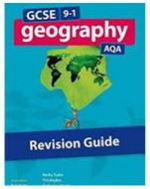
- *Are they using the revision materials (including past papers) that are on the Learning Portal in the 'Geography AQA GCSE Revision Folder'?*
- *Are they using the revision checklists and knowledge organisers that they have been given?*
- *Are they being proactive in asking for help?*
- *Do they have their class workbooks to hand? If they have misplaced these completed ones can be downloaded from the 'Geography AQA Revision Folder'.*

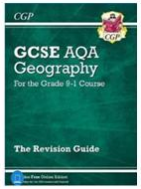
2. Check that your son/daughter is using effective revision strategies:
It is crucial that pupils follow the advice they have been given on preparing themselves for their examinations. Simply reading through notes is not enough. The key tips for success in Geography are:

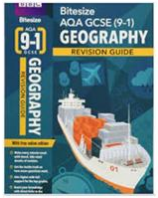
- Regular self-testing – *encourage your son/daughter to test their knowledge. Recalling what they have learned will help to embed key knowledge into their memory which in turn will make it easier for them to recall it in the exam. The CGP revision guide and knowledge organisers that they have been given will help them with this. They could always teach you about a key topic from the revision checklist or you could ask them questions about specific topics or case studies. Blank page retrieval exercises also work well.*

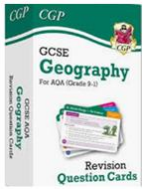
- Practice answering exam questions – *learning Geographical content on its own is not enough to secure a good GCSE grade. Examiners are looking for students to apply their knowledge to a variety of different question types. Some of these will be low tariff questions involving data interpretation, calculations and data completion while others will be higher tariff and will require extended writing. We have spent a lot of time in class working on these, but we strongly suggest that your son/daughter uses past papers questions as a central part of their revision. Their class teacher will mark and provide feedback on any questions they complete.*

GCSE Geography AQA









Advice for Effe

What Do I Need To Revise?

PAPER 1: Living with the Physical Environment
35% of the final GCSE: 1 ½ hour examination

Section A: The Challenge Of Natural Hazards
Tectonic hazards, tropical storms, extreme weather, climate change

Section B: The Living World
Ecosystems, tropical rainforests, hot desert environments

Section C: Physical Landscapes Of The UK
Coastal landscapes, river landscapes

PAPER 2: Challenges in the Human Environment
35% of the final GCSE: 1 ½ hour examination

Section A: Urban Issues & Challenges
Patterns of urban growth, cities in the developing & developed world

Section B: The Changing Economic World
The development gap, development in Nigeria, UKs changing economy

Section C: The Challenge of Resource Management
Global distribution of resources, UK resource challenges, food resources

PAPER 3: Geographical Applications
30% of the final GCSE: 1 ½ hour examination

Section A: Issue Evaluation
Questions based on topic in the pre-release resource

Section B: Fieldwork
Questions on human and physical fieldwork undertaken

What Can I Do To Improve?

Resource	Study Skill	What to do
Checklists, Mind Maps & Flashcards		Use the revision mind maps and checklists you have been given to identify your strong and weak areas (see **GCSE Geography Revision folder** if you have misplaced these) Spend at least one hour per week revising weak areas. It would be a good idea to use knowledge tests/notes from lessons/information from revision guides and resources in the **GCSE Geography Revision folder** to create flashcards – particularly for your case studies.
Past Papers		Look back through your book and write out the exam questions you have answered, use the feedback given (especially any model answers) to improve on these. Look at sample and past papers in the **GCSE Geography Revision folder**.
BBC GCSE Bitesize	Bitesize Geography	GCSE Bitesize AQA Geography is a great place to start: https://www.bbc.co.uk/bitesize/examspecs/zy3ptyc Cool Geography is also an excellent resource: http://www.coolgeography.co.uk/gcsen/revision_zone.php
Microsoft Stream		Many of the GCSE topics have been screen casted and can be accessed through the school's Microsoft Stream account. The links to these are in a word document in the 'Geography AQA GCSE Revision Folder' in the Geography Folder on the school's Learning Portal.