

REVISION BOOKLET EXAM PREPARATION YEAR 11

"If you fail to plan, you are planning to fail."



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RUSKIN EXAM BOARDS

SUBJECT	EXAM BOARD	SUBJECT	EXAM BOARD
English Literature	AQA	Construction	Pearson BTEC
English Language	AQA	Business	AQA
Maths	Edexcel	Creative iMedia	OCR Cambridge National
Science	AQA	Health and Social	Pearson BTEC
French	AQA	Hair and Beauty	Pearson BTEC
Geography	AQA	Hospitality	WJEC
History	AQA	Performing Arts	Pearson BTEC
German	AQA	Engineering	Pearson BTEC
Spanish	AQA	Photography	AQA
Art	AQA	Psychology	AQA
Sports	OCR Cambridge National	Statistics	AQA
P.E	AQA	Technology	AQA

KEY DATES

Mocks – Starting 12th Jan

• English, Maths and Science Mock Exams – April/May (TBC)

Main GCSE Examination Season – June (Please note other exams may happen before this, such as Art, etc)

Key information about all of your subjects CLICK HERE

GCSE PAST PAPERS

Maths

www.edexcel.com/i-am-a/student/Pages/Pastpapers.asp

English Language www.aqa.org.uk/subjects/english/gcse/english-language-8700/assessment-resources

English Literature www.aqa.org.uk/subjects/english/gcse/english-literature-8702/assessment-resources

SCIENCE (TRIPLE)

Biology www.aqa.org.uk/subjects/science/gcse/biology-8461/assessment-resources

Chemistry

www.aqa.org.uk/subjects/science/gcse/chemistry-8462/assessment-resources

Physics

www.aqa.org.uk/subjects/science/gcse/physics-8463/assessment-resources

SCIENCE DOUBLE

www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464/assessment-resources

Physical Education

www.aqa.org.uk/subjects/physical-education/gcse/physical-education-8582/assessment-resources

History

www.aqa.org.uk/subjects/history/gcse/history-8145/assessment-resources

Geography

www.aqa.org.uk/subjects/geography/gcse/geography-8035/assessment-resources

Business Studies

www.aqa.org.uk/subjects/business-subjects/gcse/business-8132/assessment-resources

Psychology

www.aqa.org.uk/subjects/psychology/gcse/psychology-8182/assessment-resources

Product Design

www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/assessment-resources

French

www.aqa.org.uk/subjects/languages/gcse/french-8658/assessment-resources

German

www.aqa.org.uk/subjects/languages/gcse/german-8668/assessment-resources

Spanish

www.aqa.org.uk/subjects/languages/gcse/spanish-8698/assessment-resources

THE SCIENCE BEHIND REVISION

It has been proven that our memory strength fades rapidly over time; this is known as the forgetting curve. Therefore, to build up our primary memory strength we must ensure that we are recalling this information over a period of time.

CLICK HERE to see the video link

BASICS ABOUT REVISION

- We forget 80% of what we have learnt within 24 hours
- We need to revise in the way we find appropriate to retain the information. Try not to simply read through old books or notes. Highlighting key words or text can potentially confuse more than it can help.
- Recall methods of revision that challenge us really are the best way to learn, however we avoid them at times because they can also be the most challenging way.
- We remember from the beginning and end of an experience
- So revise for 30 minutes at a time then take a break
- Information is remembered best when it is chunked into small pieces. See How to Learn – Revision techniques section

PLANNING AND REVISION

- Make sure you know all the units and sub-units for the subject
- Check that you have the necessary revision materials for each sub-unit
- See your teacher for the right revision guide, text book or where to buy revision guide
- Begin to revise each sub-topic from every subject, using long term timetable

DEALING WITH EXAM ANXIETY

Exams can feel like a lot of pressure. You might need certain grades for a course or job. You may also feel that there is a lot of pressure around getting good grades. If these start to get too much remember to discuss these with your HoH/HoY, a teacher or a parent.

CLICK HERE for further advice

REMEMBER...

Think positively

When we feel anxious, we can start thinking things like 'I can't do this' and 'I'm going to fail'. It can be difficult, but try to replace these with positive thoughts such as: 'this is just anxiety, it can't harm me' and, 'relax, concentrate – it's going to be okay'.

• Be honest about how you feel

Sometimes people can put pressure on you without even realising and sometimes it can help to talk about how it makes you feel. Talking about things can help you to think about other ways they can support you in the future.

• Don't compare yourself to your friends

Competing with your friends can help to keep you motivated. But it can also make you feel like you're not good enough, especially on social media. Try keeping a list of the revision you've done so you can see how much you're achieving.

• Let your stress out

Make sure you talk to someone about it, this could be a parent, a friend or someone at school.

SIGNS OF STRESS

- struggling to sleep
- having negative thoughts about the future
- getting headaches or feeling unwell a lot
- not eating because of how you're feeling
- always thinking about your exams or worrying about them

RELAX

No matter how much work you have to do, it's important to take regular breaks and find ways to relax. Taking a break can leave you feeling more able to cope, and even make it easier to concentrate when you start working again.

There are lots of things you can do to take a break and relax:

- Set a timer to take a 20 minute break every hour so you don't forget.
- Give yourself something to look forward to, like a treat or an activity you enjoy.
- Plan when you're going to start and finish your revision so you know when to stop.
- MAKE SURE YOU SLEEP!

session one RUSKIN REVVARD PASSPORT

TASK 1

Fill out the table below. Think about what your target grades are and what you predict you will get in that subject, based on how you are working at the moment. Try to pin point any key areas that need to be worked on to help you develop. E.g. Engineering – Work on Component 1, Exploring Engineering...

Subject	Target Grade	My prediction	Areas for Development
English			
Maths			
Science			
Option W:			
Option X:			
Option Y:			
Option Z:			

Week commencing	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
25th Nov	Maths Number Surds etc	Science Biology Cells	PE Key processes	Phil & Ethics God	Sociology Socialisation		
2nd Dec	Maths Algebra Linear Equations etc	Science Biology Organisms	PE Opportunities	Phil & Ethics Life after death	Sociology Research Methods	Business Marketing	
9th Dec	Maths Shape Rotation etc	Science Physics Radioactivity	PE Skills Technique	Phil & Ethics Peace & Justice	Sociology Family	Business Starting a Business	
16th Dec	Maths Data Probability etc	Science Physics Energy	PE Physical & Mental Capacity	Phil & Ethics Equality		Business Finance	
23rd Dec	Maths Number Ratio etc		Maths Data Histograms etc				
30th Dec	Maths Algebra Sim Equations etc		PE Mental Prep			Business Ownership	
6th Jan	Maths Shape Vectors etc	Science Chem Structure	PE Mental Prep	PE Informed Decision Making	Sociology All	Phil & Ethics All	
13th Jan	Maths Data Histograms etc	Maths Cram	Maths Cram	Maths Non Calc	PE All	Business All	Science All
20th Jan	English Skills	Eng Language	Maths Calc	Science Cram	Science / ICT Cram	Science / ICT Cram	Science / ICT Cram
27th Jan	Science	ICT	PE – Cram	PE 1	Phil & Ethics/ Soc – Cram	Business - Cram	Business - Cram
3rd Feb	Business – Cram	Business 1	PE / Business Cram	PE 2	Business 2	Phil n Ethics Cram	Sociology Cram
10th Feb	Phil & Ethics / Soc – Cram	Phil & Ethics	Sociology 1				

*Yellow Highlight indicates the exams (This is for demonstration purposes only)

session tow REVISION PLANNING

TASK 2

Use the A3 Mind maps and Topic pack that you have been given or the template on the school website here. Over the next week you will start to create your own timetable.

TOP TIPS:

- Do not just put the subject make sure you include the topic, e.g. History Causes of World War One.
- Plan for days off as well. At the start give yourself 2/3 days off, after Christmas cut this to 2 and then after Easter just the one.
- Place the timetable somewhere you will see it.
- Remember it is only as good as the person completing it, so make sure you stick to it

CLICK HERE for further advice on how to plan

SUNDAY					
SATURDAY					
FRIDAY					
THURSDAY					
WEDNESDAY					
TUESDAY					
MONDAY					
Week commencing					

SESSION THREE REVISION WEBSITES



GCSE POD

This is a fantastic resource that Priory Ruskin Academy has invested in. It enables you to listen to 3 minute podcasts 'anywhere' on virtually every major subject. You can access this site through the home page of the Priory Ruskin website.



StudyWise www.studywise.co.uk/gcse-revision



A Lot of subjects use **Show My Homework** to not only keep you up to date with homework but to also store resources.

Other useful sites www.cram.com www.getrevising.com SharePoint (On the school system)

www.doddle.com (Login needed) www.Mathswatch.co.uk (Login needed) www.Mymaths.co.uk (Login needed)



Study Rocket

Also comes with a free timetable app www.studyrocket.co.uk/revision

Recall Apps

Recall apps such as below are known to be very useful and help with revision techniques that we will discuss below, such as the Latimer Model.

1. Quizlet 2. Seneca Learn 3. Memrise 4. Gojimo

This method involves you transforming your notes into a visual format.

Whether this be putting the subject content into a graphic organiser such as a Venn diagram, a mind map, chain diagram, infographic or a sequential thinking model, the key idea is to make it visual to allow you to draw links between stages, content and images.

When you have the same information in words and visuals it gives you two ways of remembering the information later on.

How to use in ANY SUBJECT

Venn diagrams - compare and contrast Flow or chain diagram – outline a process or sequence Mind Map – organise and link content Infographic – use to summarise key points Storyboard – narrative

LINKS

Graphic organiser templates www.eduplace.com/graphicorganizer

Popplet www.popplet.com



MIND MAPPING

CLICK HERE for further information

- Start with a large piece of paper
- Revise a topic or a sub-topic
- Use a selection of words and diagrams
- Use colour, shapes, symbols, pictures and cuttings to bring the information to life
- Use lines and arrows to connect ideas
- Stick your learning map on your wall/door, anywhere it can be seen easily and often

FOR EXAMPLE:









TASK 4 CREATE A MIND MAP ON A TOPIC OF YOUR CHOICE

Use the tips from pages 14-15

session five RETRIEVAL CARDS

Reduce the information from one sub-topic to key points/bullet points. The key with this method is to write the question on one side and then to have the answer on the other side, this may be a key term, a date or an event.

3 examples can be seen below:

Social Injustice – When a group of people are treated badly like women or poor people. Examples of social injustice: Racism, Sexism, Poverty

Why fight against injustice?

- 1. Conscience
- 2. Treat others as
- 3. Love your neighbour good Samaritan

Who has fought Injustice?

- 1. Martin Luther King Racism in USA
- 2. Elizabeth Fry Prison Conditions 1800's
- 3. William Wilberforce Slavery 1800's

How do people fight Injustice?

- 1. Protests
- 2. Disobeying unjust laws
- 3. Giving money to charity like Amn Int.
- Hide and Seek Try to memorise the key points. Hide them and see if you can write them out
- NOW try to develop this using the spaced retention method on page 20
- Ask someone else to ask you questions
 - o The basic facts
 - o The deeper point behind each point, get them to ask: Why?

TASK 5 COMPLETE THE RETRIEVAL CARDS

Use the information on the next page to help you. The best method is to write the question on one side with the pointers/answers on the other side.

•	Ionic Compounds •
•	•
Covalent Structures	Motals
	Meidis
•	•
•	•
•	•
•	• •
•	• •

C2.2: How structure influences the properties and uses of substances

Substances that have simple molecular, giant ionic and giant covalent structures have very different properties. Ionic, covalent and metallic bonds are strong. However, the forces between molecules are weaker, eg in carbon dioxide and iodine. Metals have many uses. When different metals are combined, alloys are formed. Shape memory alloys have a range of uses. There are different types of polymers with different uses. Nanomaterials have new properties because of their very small size.

Molecules

Substances that consist of simple molecules are gases, liquids or solids that have relatively low melting points and boiling points. Substances that consist of simple molecules have only weak forces between the molecules (intermolecular forces). It is these intermolecular forces that are overcome, not the covalent bonds, when the substance melts or boils. Substances that consist of simple molecules do not conduct electricity because the molecules do not have an overall electric charge.

Ionic compounds

lonic compounds have regular structures (giant ionic lattices) in which there are strong electrostatic forces in all directions between oppositely charged ions. These compounds have high melting points and high boiling points because of the large amounts of energy needed to break the many strong bonds. When melted or dissolved in water, ionic compounds conduct electricity because the ions are free to move and carry the current.

Covalent structures

Atoms that share electrons can also form giant structures or macromolecules. Diamond and graphite (forms of carbon) and silicon dioxide (silica) are examples of giant covalent structures (lattices) of atoms. All the atoms in these structures are linked to other atoms by strong covalent bonds and so they have very high melting points. In diamond, each carbon atom forms four covalent bonds with other carbon atoms in a giant covalent structure, so diamond is very hard. In graphite, each carbon atom bonds to three others, forming layers. The layers are free to slide over each other because there are no covalent bonds between the layers and so graphite is soft and slippery. In graphite, one electron from each carbon atom is delocalised. These delocalised electrons allow graphite to conduct heat and electricity. Carbon can also form fullerenes with different numbers of carbon atoms. Fullerenes can be used for drug delivery into the body, in lubricants, as catalysts, and in nanotubes for reinforcing materials, eg in tennis rackets.

Metals

Metals conduct heat and electricity because of the delocalised electrons in their structures. The layers of atoms in metals are able to slide over each other and so metals can be bent and shaped. Alloys are usually made from two or more different metals. The different sized atoms of the metals distort the layers in the structure, making it more difficult for them to slide over each other and so make alloys harder than pure metals. Shape memory alloys can return to their original shape after being deformed, eg Nitinol used in dental braces.



The idea of Retrieval cards is to train the memory over time. This is not something that can simply work as a one off as they have to be used continually in order to remember the content required.

The Latimer Model

CLICK HERE for more information

The method below is a very good technique that can help you develop your long term memory. Get a pack of cards and 6 boxes. Once you have created the questions and answers for that subject, test yourself on what you know. If you get them right place them into the first box, any in correct answers will need to be left to the side. The next day come back to them and test yourself on the cards in box one, if you get them correct move them to box two. Those cards that you got wrong the first time are then done at the end and moved to box one if you now get them correct. You can follow the process below to complete so you would not answer box 2 until 3 days had passed. You can also change the days to suit your learning so the 3 day box could become 2 days



session six CORNELL NOTES SYSTEM

The Cornell Notes system is a note-taking system devised to help you condense and organise notes.

How to use Cornell Notes system

- Divide the paper into two columns: the note-taking column (usually on the right) is twice the size of the questions/key word column (on the left), leave five to seven lines at the bottom of the page.
- In the questions/key words column, write down what you need to know in the form of a question e.g. What is osmosis?
- Notes from a class, text book or revision website are then written in the note-taking column. Long sentences should be avoided and symbols or abbreviations used instead.

How to use Cornell notes in revision

- Fold the paper so that you can only see the question/key words column
- Then looking at each question in turn answer it in your own words before checking your answer against the notes
- Repeat this a little bit each day or each week, this will help you retain the information

TASK

Use the following pages to complete Cornell Notes on Osmosis

Topic/Objective: Osmosis	
Questions/Key words	Notes
What is Osmosic?	
What does osmosis look like	
as a simple diagram?	
How does osmosis affect	
plant cells?	
How does Osmosis affect animal cells?	
Key Words	
• Osmosis	
 Partially permeable 	
• Flacid	
• Turgid	
 Playsmolyed 	
Summary	·

OSMOSIS

Osmosis is the diffusion of water molecules, from a region where the water molecules are in higher concentration, to a region where they are in lower concentration, through a partially permeable membrane.

A dilute solution contains a high concentration of water molecules, while a concentrated solution contains a low concentration of water molecules.



When the concentration of water is the same on both sides of the membrane, the movement of water molecules will be the same in both directions. There will be no net movement of water molecules. In theory, the level of solution two will rise, but this will be opposed by gravity and will be dependent on the width of the container.

Similar observations will be made with solutions containing different solutes, for instance, salt

OSMOSIS ACROSS LIVING CELLS

Cells contain dilute solutions of ions, sugars and amino acids. The cell membrane is partially permeable. Water will move into and out of cells by osmosis.

PLANT CELLS

Isolated plant cells placed in a dilute solution or water will take in water by osmosis. Root hair cells, if the soil is wet or moist, will also take up water by osmosis. Leaf cells of land plants, unless it is raining or the humidity is high, will have a tendency to lose water.

Plant cells have a strong cellulose cell wall outside the cell membrane. The cell wall is fully permeable to all molecules and supports the cell and stops it bursting when it gains water by osmosis.

If plant cells are placed in solutions of increasing solute concentration:

Pure water

In pure water, the cell contents (the cytoplasm and vacuole) push against the cell wall and the cell becomes turgid.

Fully turgid cells support the stems of non-woody plants.

Concentrated solution

In a more concentrated solution, the cell contents lose water by osmosis. They shrink and pull away from the cell wall. The cell becomes flaccid. It is becoming plasmolysed.

Highly-concentrated solution

In a very concentrated solution, the cell undergoes full plasmolysis as the cells lose more water.

Plants would be exposed to higher concentrations of solutes if there was less water in the soil - for instance, if plants were not watered, or plants in drought conditions. Plant cells would then lose water by osmosis.

In animals, the concentration of body fluids – blood plasma and tissue fluid – must be kept within strict limits – if

ANIMAL CELLS

Animal cells also take in and lose water by osmosis. They do not have a cell wall, so will change size and shape when put into solutions that are at a different concentration to the cell contents.

cells lose or gain too much water by osmosis, they do not function efficiently.

For example, red blood cells could:

1. Shrinking down to size...

lose water and shrink

• gain water, swell and burst in a more dilute solution

A great, step-by-step way to process what you have learnt. The example below shows how a lot of knowledge can be 'condensed' down, into something more manageable. It

helps your mind process ALL of the information, so the small

box left behind is the result of all of your hard work!

boxes - then create a 'flip-book' out of them?







2. Concept maps

Really useful for linking ideas together, concept maps allow you to elaborate on your points more than mind maps. Different colours could indicate social, environmental and economic factors.

Add diagrams, make physical links use and symbols to make the concept map more interesting and visual.



3. '60-minute takeover'

This is such a good way not over-revising. This technique allows you to spend short bursts of time revising parts of a particular topic. You can organise your 60 minutes into smaller sections.



4. 'Snap' Key Term Cards

Create a set of cards with key words on, and another set with their definitions on. Get a friend or somebody at home to test you.

...This is a great way of recalling the most important words in a topic - and will help you to use these words - and their definitions correctly in your exam.



SESSION SEVEN EXAM TECHNIQUE

ANSWERING THE QUESTION

Pupils often fail to answer the exam question properly. They put what they think it is asking, not what 'it is' asking. Below are 2 activities that help pupils to answer the questions properly. **This technique is only needed for extended answers not 1 or 2 mark answers.**

A. Put the question in the answer

"Put the question in the answer!" - This activity helps pupils to keep focused on the question and avoid going off on a tangent.

eg. Q - What are the effects of steroids on muscle growth?

A – The effects of steroids on muscle growth are.....

B. Say it again!

When revising, look at an exam question and rewrite it in your own words. This helps you to think about what exam questions are really wanting from you.

E.g. "The death sentence is the only way to reduce serious crime in the UK" - discuss.

To:

'Are there other ways to reduce serious crime in the UK apart from the death penalty?'

TASK 7

Have a go at putting the question in the answers below. Remember to start of your extended pieces in this way.

A. Propaganda was the most important factor in allowing Hitler to become Chancellor of Germany in 1933. How far do you agree?

B. Fully explain two reasons why children may be more easily socialised by the media than adults.

C. Explain the role of the skeletal system in producing movement of the body.

D. Explain how plants and/or animals can live in extreme conditions.



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