Year 10 Parents Revision Evening

23rd March 2023

Year 10 Exams - wb. 9 May 2023

AM	Tuesday 9 May 2023	Wednesday 10 May 2023	Thursday 11 May 2023	Friday 12 May 2023
Start time - 9.05pm (students go to registration first)	English Literature Paper 2 - 1hr 30mins	Computer Science - 1hr 30mins Dance - 1hr 30mins RE (Christianity and Theme A) - 1hr 30mins	Design and Technology - 2hrs Sociology (Transmission of Processes/Families/Crime) - 1hr 45mins History (Asia and BHP) - 1hr 30mins French - 2hrs	Science - Biology Paper 1 - 1hr 15mins Triple Science - Biology Paper 1 -1hr 45mins
PM				
Start time - 1pm (students have lunch in the 12.20pm lunch slot)	Maths (Non Calc) - 1hr	**CLASHES (students will sit clashed exams during this sitting. They may need to sit clashed exams during other sittings, but this will be recorded on Exam Timetables).**	Music - 1hr 30mins Media Studies - 1hr Geography - 1hr 15mins	Drama - 1hr 30mins Food Preparation and Nutrition - 1hr 45mins

All exams will take place in the Sports Hall, with the exception of those students who have access arrangments.

Algebra	Topic	MathsWatch	RAG
Grade 1	Algebraic Notation	7	
	Coordinates	8	
Grade 2	Simplifying - addition and subtraction	33	
	Simplifying - multiplication	34	
	Simplifying - division	35	
	Function machines	36	
	Generating a sequence - term to term	37	
Grade 3	Expanding brackets	93	
	Simple factorisation	94	
	Substitution	95	
	Straight line graphs	96	
	The gradient of a line	97	
	Solving equations using flowcharts	100	
	Subject of a formula using flowcharts	101	
	Generate a sequence from nth term	102	
	Finding the nth term	103	
	Special sequences	104	
Grade 4	Midpoint of a line on a graph	133	
	Expanding and simplifying brackets	134	
	Solving equations	135	
	Rearranging simple formula	136	
	Forming formulae and equations	137	
	Inequalities on a number line	138	
	Solving linear inequalities	139	
	Fibonacci sequences	141	
Grade 5	Factorising and solving quadratics	157	
	The difference of two squares	158	
	Finding the equation of a straight line	159	
	Geometric progressions	163	

Statistics and Probability	Topic	MathsWatch	RAG
Grade 1	The probability scale	14	
	Tally charts and bar charts	15	
	Pictograms	16	
Grade 2	Frequency trees	57	
	Listing Outcomes	58	
	Calculating probabilities	59	
	Mutually exclusive events	60	
	Two-way tables	61	
	Averages and range	62	
	Data - discrete and continuous	63	
	Vertical line charts	64	
	Frequency tables and diagrams	65	
Grade 3	Experimental probabilities	125	
	Possibility spaces	126	
	Venn diagrams	127	
	Representing data	128	
	Scatter diagrams	129	
	Averages from a table	130	
Grade 4	Simple tree diagrams	151	
	Sampling populations	152	
	Time Series	153	
Grade 5	Harder tree diagrams	175	
	Stratified sampling	176	

Geometry	Topic	MathsWatch	RAG
Grade 1	Polygons properties	10	
	Names of angles	13	
Grade 2	Properties of solids	43	
	Nets	44	
	Angles on a line and at a point	45	
	Measuring and drawing angles	46	
	Plans and Elevations	51	
	Perimeters	52	
	Area of a rectangle	53	
	Area of a Triangle	54	
	Area of a Parallelogram	55	
	Area of a trapezium	56	
Grade 3	Metric conversions	112	
	Problems on coordinate axes	113	
	Surface area of a prism	114	
	Volume of a cuboid	115	
	Circle definitions	116	
	Area of a circle	117	
	Circumference of a circle	118	
	Volume of a prsim	119	
	Angles and parallel lines	120	
	Angles in a triangle	121	
	Properties of special traingles	122	
	Angle sum of polygons	123	
	Bearings	124	
Grade 4	Tangents, Arcs, Sectors and Segments	149	
	Pythagoras' Theorem	150	
Grade 5	Congruent triangles	166	
	Sectors of a circle	167	
	Trigonometry	168	
	Spheres	169	
	Pyramids	170	
	Cones	171	
	Exact Trigonometric Values	173	
	Vectors	174	

January Mock Foundation Confidence Grid

Target - focus on your weaker areas (Red and Amber from your unit asessments).
Test - use MathsWatch, revision guides, worksbooks and your exercise books to complete practice questions.
Transform - use practice papers to apply your targeted and tested knowledge and transform your understanding. The Grade boundaries are guidance as content is made more difficult and a higher grade by combining content and/or content being applied in a problem.

Number	Topic	MathsWatch	RAG
Grade 1	Place Value	1	
	Ordering Integers	2	
	Ordering Decimals	3	
	Reading Scales	4	
	Real-life tables	6	
Grade 2	Adding integers and decimals	17	
	Subtracting integers and decimals	18	
	Multiplying integers	19	
	Dividing integers	20	
	Inverse operations	21	
	Money questions	22	
	Negatives in real life	23	
	Introduction to fractions	24	
	Equivalent fractions	25	
	Simplifying fractions	26	
	Half-way values	27	
	Factors, Multiples and Primes	28	
	Powers/Indices	29	
	Multiply and divide by powers of 10	30	
	Rounding to the nearest 10, 100 etc	31	
	Roudning to decimal places	32	
	Introduction to percentages	40	
Grade 3	Multiplying decimals	66	
	Dividing decimals	67	
	Four rules of Negatives	68	
	Listing strategies	69	
	Comparing fractions	70	
	Adding and subtracting fractions	71	
	Finding a fraction of an amount	72	
	Multiplying fractions	73	
	Dividing fractions	74	
	BIDMAS	75	
	Reciprocals	76	
	Calculator questions	77	
	Product of primes	78	
	Highest Common Fcator (HCF)	79	
	Lowest Common Multiple (LCM)	80	
	Squares, cubes and roots	81	
	Working with indices	82	
	Standard form	83	
	Decimals and fractions	84	
	Fractions, Percentages and Decimals	85	
	Percentage of an amount (calc)	86	
	Percentage of an amount (non-calc)	87	
	Change to a percentage (calc)	88	
	Change to a percentage (non-calc)	89	
	Rounding to significant figures	90	
	Estimating answers	91	
	Using Place Value	92	
	Increase/decrease by a percentage	108	
	Percentage change	109	
	Reverse percentage problems	110	
	Simple interest	111	
Grade 4	Index notation	131	
	Introduction to bounds	132	
Grade 5	Negative indices	154	
	Error intervals	155	
	Mathematical reasoning	156	
	Compound interest and depreciation	164	

Ratio & Proportion	Topic	MathsWatch	RAG
Grade 2	Introduction to ratio	38	
	Using ratio for recipe questions	39	
	Value for money	41	
	Introduction to proportion	42	
Grade 3	Exchanging money	105	
	Sharing using a ratio	106	
	Ratios. Fractions and graphs	107	
Grade 4	Compound Units	142	
	Distance-Time Graphs	143	
	Similar shapes	144	

GCSE English Literature Confidence Grid - Year 11 2023

Please use this list of subject content to target and organise your revision.

Literature Paper 1	**Areas of weakness to target:**	**Confident I have learned this knowledge:**
19th Century text: A Christmas Carol		
• Plot - what happens in the novella?		
• Pivotal moments and what they show? Authorial intentions?		
• Key characters and what they represent? Authorial intentions?		
• Themes and what the author is suggesting about each? Context and significance?		
• **Dominant methods (language/structural devices) used by the author. Effects achieved?**		
• Key quotations **(Remember, you <u>must</u> analyse the extract but you must also analyse quotes/structural aspects from the text as a whole as well. If you don't do this, you'll be capped at level 2. There are 6 levels for literature in total.**		
• How to structure the exam essay?		

Literature Paper 1 Section B	Areas of weakness to target:	Confident I have learned this knowledge:
Shakespeare: 'Macbeth'		
• Plot?		
• What happens in each scene?		
• Pivotal moments and what they show? Authorial intentions?		
• Key characters and what they represent? Authorial intentions?		
• Themes and what the author is suggesting about each?		
• **Dominant methods (language/structural devices) used by the playwright, including dramatic devices. Authorial intentions?**		
• Key quotations **(Remember, you <u>must</u> analyse the extract but you must also analyse quotes/structural aspects from the play as a whole as well. If you don't do this, you'll be capped at level 2. There are 6 levels for literature in total.**		
• How to structure the exam essay		

Retrieval Practice…

Students in Year 10 will all be able to have a go at these questions. Some of the topics were studies recently, whilst others were studied earlier in the year. This type of practice, repeatedly, is invaluable and embeds knowledge into the long-term memory.

English

When is the play 'An Inspector Calls' set and when was it first performed?

An Inspector Calls is set in 1912, and was first performed in 1946.

Social responsibility is a key theme explored in the play. What is social responsibility?

Social responsibility is the duty that we have to act in the best interests of everyone in society. It is the idea that a society's poorer members should be helped by those who have more than them. By looking after others Priestley (the author) suggests that society as a whole will benefit.

Maths

GCSE — Edexcel Foundation: November 2017 Paper 2, Q15

COPY

1 Mrs Smith uses oil to heat her home.

At the beginning of October there were 1000 litres of oil in her tank.

Mrs Smith bought enough oil to fill the tank completely.
She paid 50p per litre for this oil.
She paid a total amount of £750

At the end of March Mrs Smith had 600 litres of oil in the tank.
She bought enough oil to fill the tank completely.
The cost of oil had increased by 4%.

Work out the total amount Mrs Smith paid for the oil she bought in March.

Oil Added to 1000 litres:

£750 ÷ 50p = 750 ÷ 0.5 = 1500 litres

So, a full tank contains = 2500 litres

Oil Needed to fill in March:

= 2500 – 600 = 1900

New oil cost per litre:

= 50p + 4%

10% = 5p

1% = 0.5p

4% = 2p

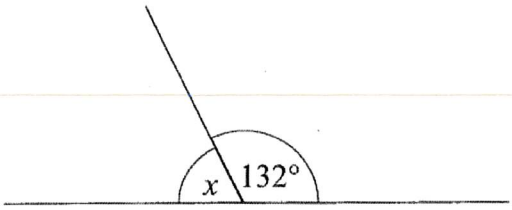
New price = 52p

1900 litres x 52p = 98800p

= £988

£ 988

(Total for Question 1 is 5 marks)



(a) Work out the size of the angle marked x. 180 − 132

48 °

(b) Give a reason for your answer.

Angles on a straight line add to 180°

(Total for question 8 is 2 marks)

Science

These 8 elements are in alphabetical order: Calcium; Copper, Iron; Lithium; Magnesium; Potassium; Sodium; Zinc. Put them into order of reactivity (most reactive to least).

Potassium; Sodium; Lithium; Calcium; Magnesium; Zinc; Iron; Copper

Write the word equation for photosynthesis.

Answer: Carbon Dioxide + Water → Glucose + Oxygen

History or Geography

History

At which point does Douglas MacArthur go beyond containment during The Korean War, and what were the consequences of this?

MacArthur went beyond containment when he crossed the 38th Parallel, invading North Korea. The consequence of this was that it drew China into the war, escalating the conflict.

What does The Black Death tell us about public health in Britain during the Medieval period?

The Black Death tells us that public health was poor. Disease spread rapidly during to unsanitary conditions, and overcrowding. There was no 'central' system for managing the response to The Black Death which meant the disease was almost free to ravage the population. There was a lack of knowledge about what caused disease, which means attempts to cure it, were flawed.

Geography

Where do tropical storms form?

Tropical storms form over warm oceans (above 27oC) which explains why they are found in the Tropics. They form in the summer and autumn when sea temperatures are at their highest. Most tropical storms form 5-15oC north and south of the Equator. This is because at the Equator there is not enough 'spin' from the rotation of the Earth.

Which 3 factors do urban planners need to consider to achieve urban sustainability?

Urban sustainability can be achieved through a joint approach of:

- Social planning, taking into accounts people's needs.
- Economic planning, providing people with employment and
- Environmental planning, ensuring that resources are not wasted and the environment is protected for future generations.

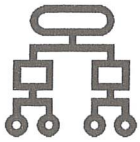
Retrieval strategies

Brain dump

Choose a topic and write down as much as you can remember, without referring to your notes. Check your notes and see what you missed then try to fill the gaps without the notes. Check your notes a third time and add the missing information.

Flash cards

Write flashcards for each topic, in all subjects, then mix them up for the most effective revision. Check out the Leitner System for effective spacing and interleaving. Keep your flashcards simple – one question, one answer per card.



Map it out

Take an essay question or writing question and map out your answer, without writing a full response. Look at the mark scheme and decide if your plan meets the criteria. Do this for a number of questions, then choose one and write the full response.

Past papers

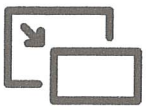
Ask your teacher for practice questions or exam papers. Complete them without notes in exam conditions, then check your answers and identify the gaps in your knowledge, so you can target your revision.

Quizzes

Write a set of questions and answers and ask someone else to test you. It's important to either write or say your answers aloud. Reading through quizzes in your head can give you a false sense of security.

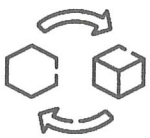
Practise introductions

For essay subjects, take a past exam question and practise writing effective introductions and conclusions. Look back at your notes and remind yourself of the important things to remember. Practise for different topics, texts and papers.



Thinking hard: reduce

Read a section of your notes then put them aside and reduce what you read to 3 bullet points, each one no more than 10 words. Look back at the notes and decide if you missed anything important. Hide the notes and write a fourth bullet point.

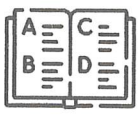


Thinking hard: transform

Read a paragraph from your notes or a text book and transform it into a diagram, chart or sketch – no words allowed. Look at a diagram in Science, for example, and transform it into a paragraph of explanation.

Thinking hard: connect

For each subject, consider the exam papers and group together questions that require the same technique to answer. Write down the requirements of each type. Find a previous example you've completed and identify where you've met the criteria.



Key vocabulary

For a particular topic, make a list of key vocabulary, then do the following: define each word; use each term in a sentence; create a question where the key word is the answer; identify other words which connect to each of the words in your list.

5 Step Study Plan

It's never too late to plan your revision!
This simple plan from @KateJones_teach & @Inner_Drive is a great place to start.

Make a list

What do you need to know? Break it down into topics and units. When you can retrieve it without effort, cross it off the list. It might help with motivation and organisation to have a 'to do' and 'have done' list.

Timetable a spaced schedule

Look back at the notes about spacing and interleaving. Study each topic little and often and mix up subjects and topics so you are revising a mixture each day. Be sure to leave yourself enough time to cover everything.

Use effective study strategies

That's what this booklet is all about. Keep re-reading and highlighting to a minimum. Highlight what you need to learn – but that won't make you learn it. Test yourself, using retrieval strategies. Think twice before loading up your favourite playlist!

Identify the gaps in your knowledge

Having used the retrieval strategies, where are the gaps? What are you confident with? What do you need to go back to? What do you need to study more?
Be honest with yourself – don't just focus on what you *do* know.

Close the gaps

Repeat the third and fourth steps of the plan until you are confident with everything. Some parts will be difficult, but don't give up. The harder you have to think, the more likely you are to remember in the end. 'Memory is the residue of thought.' *(Dan Willingham)*

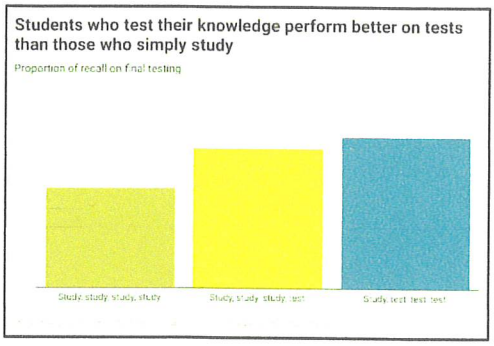
What doesn't work?

Re-reading notes and highlighting key points

According to research, 84% of students admit to using this technique to revise, and 55% claim it is their favourite technique. But is it really effective? Reading a whole chapter of a textbook, or reading through 3 previous essays, is quite a lot of work, so surely it's beneficial? But how much do you actually remember the next day, next week, next month?

What does the research say?

A study in 2006 *(Roediger and Karpicke)* compared the learning of three groups who used a combination of re-reading and retrieval practice to prepare for a test. When asked, those who just relied on re-reading *believed* it was an effective strategy for learning and felt really confident about the final test. The results said the opposite, though - those who used retrieval practice did at least 30% better in the final test.



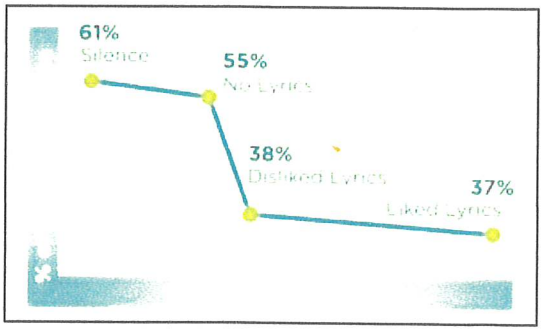
Another study in 2016 *(Smith et al)* took similar groups and subjected half of them to stressful environments before testing how much they could remember. Students who had just re-read their notes performed 32% worse in stressful situations, whereas students who had used retrieval practice were not negatively affected by increased stress. This is clearly beneficial in exam situations.

Listening to music when revising

Music can be beneficial for certain tasks - it can improve our mood, boost our motivation and increase creativity. But is it helpful when revising? According to research, 47% of students believe music helps them concentrate and 29% claim it keeps them calm.

What does the research say?

A 2014 study *(Perham and Currie)* compared four study groups: one group working in silence; another revising to songs they liked; a third group revising to songs they didn't like; the final group listening to music without lyrics. Those revising in silence performed significantly better than those listening to songs with lyrics, and it made no difference if they liked the songs!



Despite what many students think, listening to your favourite songs is not the best way to revise; music takes up processing space in the brain, leaving less space to process revision materials.

Lots of testing – also known as retrieval practice – done in silence, is the best strategy when revising.
How can you make this even more effective? Read on...

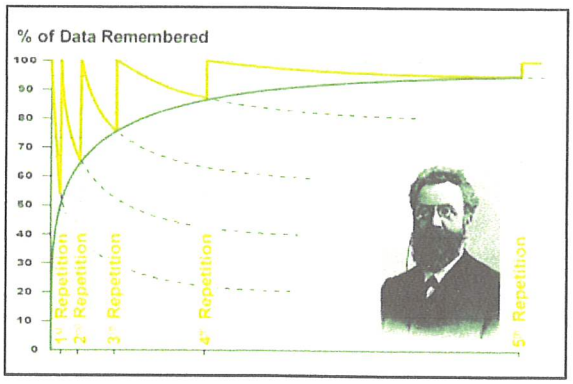
What does work?

Retrieval practice

Retrieval is trying to remember information you have previously learned, so you can access it easily at a later date. When we are asked a question, our brain makes connections to other things we know. By repeating the question regularly, those connections are strengthened, and eventually the information transfers to our long term memory.

What does the research say?

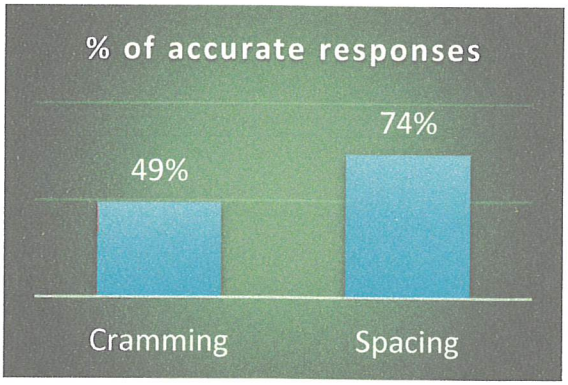
This is one of the most extensively researched areas of learning - dating back to Ebbinghaus in 1885. If we only learn something once, we are more than likely to forget it; we need to force ourselves to remember and re-learn the information if we want to cement it in our long term memory. Look back at the study on the previous page – those students who self-tested 3 times before the exam were far more successful than those who just re-read the text.



How can you make it even more effective?

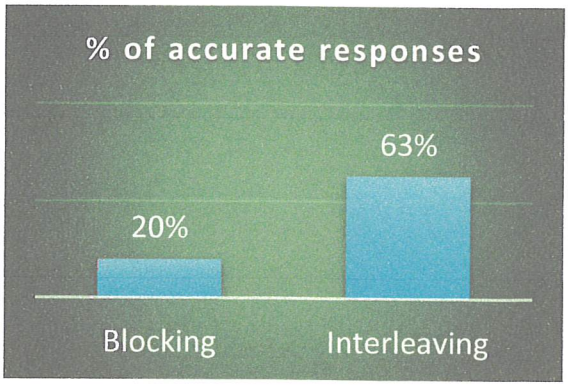
Spacing

Cutting up your revision into smaller chunks and spacing them out over a period of time is much more beneficial than cramming an entire subject in a day. An hour of Physics each day for 5 days is much more effective than 5 hours in one day.



Interleaving

To improve your results further, also consider interleaving. This is where you mix up the subjects and topics you revise: 30 minutes of Shakespeare, 30 minutes of algebra, 30 minutes of Poetry, 30 minutes of Ratio - rather than an hour of English and an hour of Maths.



A 2007 study *(Rohrer and Taylor)* found that students who spaced out their revision over a week, compared to one sitting, achieved a much higher average mark in their final exams. In a second study, students were given a mock test after blocking or interleaving and another test a week later. Even though blocking was effective in the mock test the next day, the students who used interleaving did considerably better a week later in the final exam.

Need some examples of effective retrieval strategies? Read on...

What else helps?

Get some sleep

How many hours of sleep do you get each night? On average, teenagers claim to get 6-7 hours a night, when they should really be aiming for 9-10 hours. If you are only getting 6-7, you are depriving yourself of over 1000 hours of sleep each year. You must be exhausted!

What does the research say?

Put very simply, we experience two types of sleep: deep sleep, which helps our body to recover; and REM, which helps restore our mind. Without enough REM sleep, you are much more prone to anxiety, stress, lack of concentration, mood swings and poor decision making.

A 2009 study *(van der Helm and Walker)* found a 40% reduction in memory when sleep deprived. Not only that, but you are more likely to forget positive memories when tired, just recalling and retaining negative memories. Excessive sleep loss therefore impacts on our mental health and stress levels.

Limit your screen time

Mobile phones can be great tools for learning but are they having a negative impact on your learning? Catching up with friends, social media, movies and box sets is great – but when is the best time to do these things?

What does the research say?

A 2014 study *(Thornton et al)* found that just having a mobile phone nearby can lead to a 20% reduction in attention, concentration and performance.

Another study in 2013 *(Wood et al)* found that the glare from phones and iPads tricks our brain into thinking it is daytime, therefore stopping melatonin (the sleep hormone) being triggered. Two hours on your phone or iPad at night results in 20% less melatonin being released. At the very least, dim your screen prior to bedtime - or better still, don't use it at all.

Look after yourself

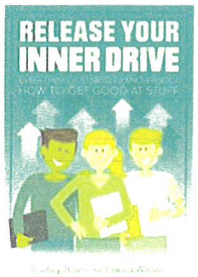
Being kind to yourself each day can have a big impact on your performance during revision and exams. Take a break and get some exercise. Aim to start the day with cereal or toast – but be sure to treat yourself later on in the day. Find time to do the things you love. Reward yourself for your hard work.

What does the research say?

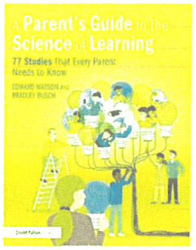
A range of studies in 2016 *(Miller and Krizen)* found that students who took a 12 minute walk reported a 20% increase in happiness, attentiveness and confidence, compared to those who spent that time sitting down. Even taking a 5 minute walk resulted in similar benefits. Break up your study sessions with a quick stroll and see for yourself.

Reading and resources

Don't fancy writing out flashcards? Take a look at the Anki app. There are banks of cards you can access, or you can make your own. The beauty of this app is that you tell it how difficult each card was, and it works out the best time to ask you that question again!



This excellent book is designed to show teenagers how they can excel at school and in life. Discover how to: take control, concentrate better, find your motivation, fail better, make revision stick, perform under pressure, ace those exams, put down that phone when you're meant to be revising, get over FOMO, stop procrastinating, get a good night's sleep, take care of yourself and your mental health, learn from sporting champions and grow your mindset to get ahead.



This book answers the sort of questions that every parent wants to know. How much sleep does your child need? Should you help them with their homework? Why does your child forget what they have just learnt? How much screen time is too much? What can you do to help them do better at school? How can you help your child learn to better manage their emotions?

Speak to your subject teachers

Find out if there are any useful apps, websites, books or blogs which will assist with your revision. Jot down the details here.