

Park School's



Academic Skills GUIDE

Examples of Mnemonics

People use a lot of different techniques to remember things. For example, you may remember your PIN for your bank card, by how you type it on the keypad, or maybe you remember things better if you hear them rather than read them.

Another excellent way to remember things is the use of Mnemonics (pronounced 'nu-monics'). This technique uses a weird word or phrase, to help you remember the first letters of a sequence of key words, for example:

The 7 aspects of life:

GRIMEND

Growth
Reproduction
Irritability
Movement
Excretion
Nutrition
Death

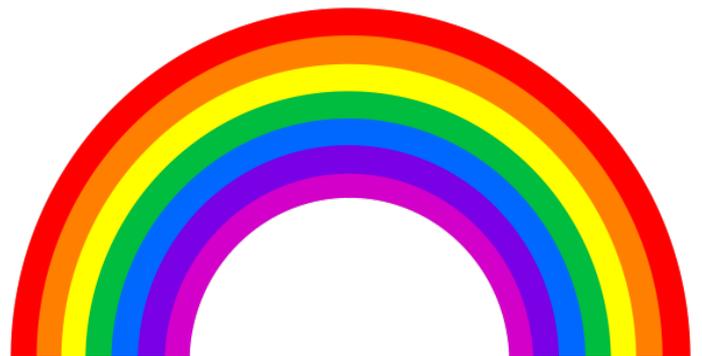
The order of the planets orbiting the Sun:

My Very Easy Method Just Sleep Until Noon

Mercury
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune

The Order of Operations:

Brackets
Indices
Division
Multiplication
Addition
Subtraction



And one everyone knows - **R**ichard **O**f **Y**ork **G**ave **B**attle **I**n **V**ain.

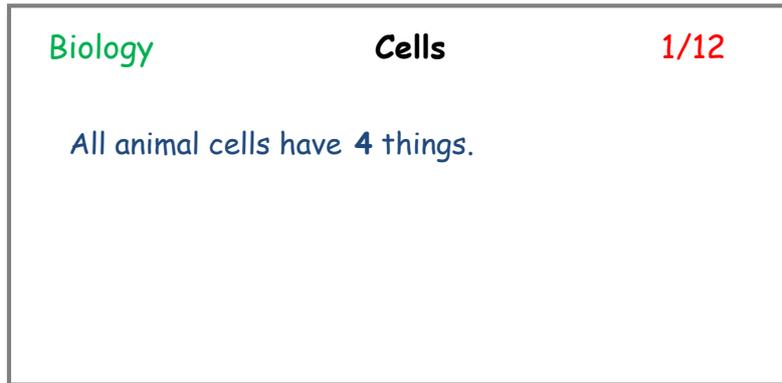
Now see if you can come up with one for the order of taxonomy classification:

Kingdom **P**hylum **C**lass **O**rder **F**amily **G**enus **S**pecies.

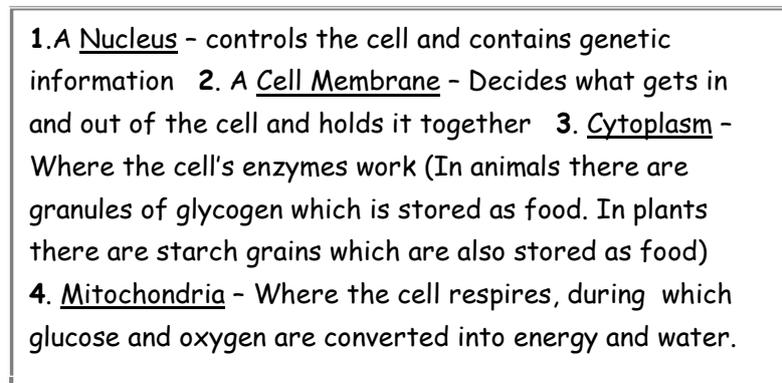
Flashcards

Flashcards work well as a way of revising key terms and concepts, they are one of the most effective techniques for retaining information. The big advantage of flashcards is that you are revising while you make them, and then you can test yourself or make it more fun and get someone else to test you.

Flashcards work in a really simple way. On one side of the card, write something you need to know.



On the other side of the card, write the answer.

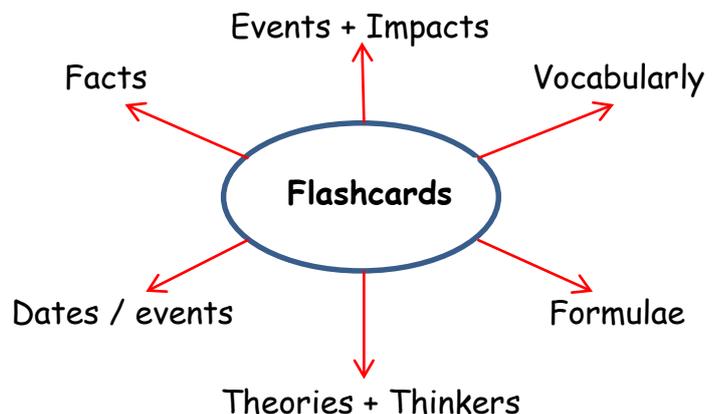


Making Flashcards

You can make flashcards:

- Using *index cards* or a sheet of card cut into A6-sized pieces.
- Using *Post-Its* - stick them around your room for a ready made memory journey
- Using *Word* - See page 21 - Make them colour co-ordinated.

Flashcards work well for:



Summarising and Comparing

The aim is to reduce the key points of an article (or other text) to the smallest number of words, without losing any of the key points made. A good summary will reduce the length of the text to about 20 - 40% of its original size.

Who needs Summaries?

In the real world, you might be asked to do a summary by your manager or leader. Instead of reading all the papers, he might ask you to do it and then give him a summary of the most useful and interesting parts.

When you make a summary of an essay you have written, a book you have read, or a set of notes you have taken, the summary is easier for you to use when you want to revise and remember it.

Top Ten Tips on Summarising

1. Read the original text very carefully, making sure you understand it.
2. Read it again, highlighting or underlining what appears to be the key points.
3. Consider mapping the points made.
4. Consider changing the order of points or grouping some together to save words.
5. Consider turning several similar points into a list within a single sentence.
6. Don't copy anything straight out without re-wording it.
7. Don't do only part of a text if a summary of the whole is asked for.
8. Don't do the whole of a text if only certain lines are asked for.
9. Don't include unnecessary detail.
10. Keep it clear and simple. If you end up writing complicated sentences, you're including too much.



If U R GD @ txt in U R already cool @

summarising



Bullet Points

- Simple way of remembering key facts
- Read text, highlight key words and facts
- Single out each point with a "bullet"
- Effective method of revision

Human Body

Example 3

Many people don't realise that the human body, from the time when modern man first evolved millions of years ago right up to the present day, consists of 206 bones.

Doctors who specialise in learning about the human skeleton, train for many years to become experts in this field and have to pass a number of complicated exams.

The main organs in the human body are lungs, heart, liver and kidneys. Modern science has enabled surgeons to find out more about the way these organs work than ever before.

Scientists have now established that the human body is a collection of more than 50,000 million cells. Research continues at universities around the world into the workings of the human body.

Can you extract three bullet points from the above text

- _____
- _____
- _____

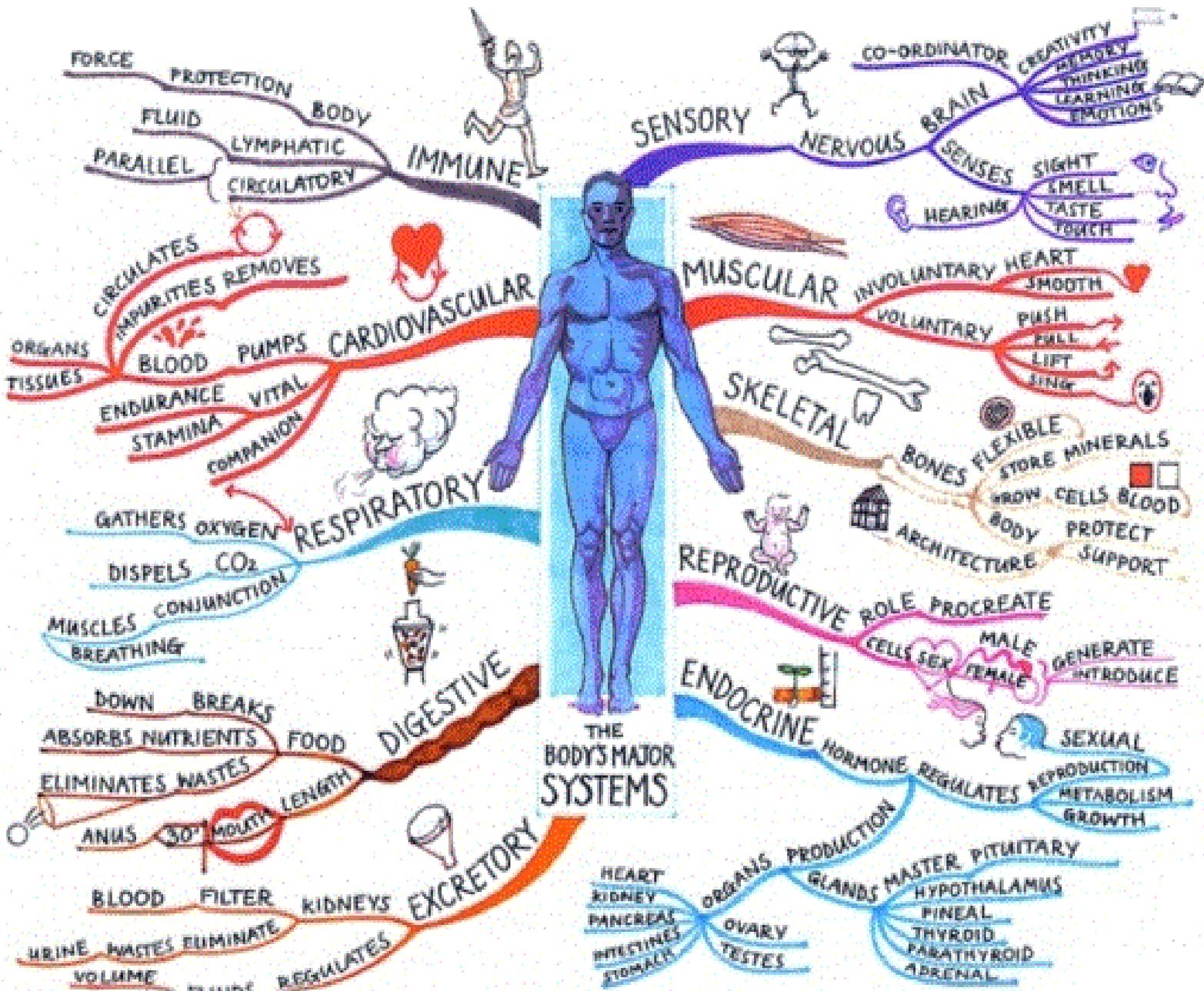
- See page 26 for answers

Maps for Memories

Mind maps or concept maps are a great way to revise using a powerful visual aid. You can make mind-maps, rather than taking linear notes. Mapping your notes by radiating key words out in a pattern of links from a central point will make best use of your memory. If you use colour and images on the maps, you'll be harnessing the power of both sides of your brain - creative and logical!

Memories get strengthened the more times you make connections to them. That makes a mind map a very good tool for building up memories and for recalling memories when you need them.

Here is an example of a mind map of the body's major systems:



How to Mind Map

1. Start with the theme in the middle of the page.

2. Then develop your main idea.

3. Each branch must relate to the branch before it.

4. Use only key words and images.

5. Key words must be written along the branches.

6. Printing your key words makes them more memorable.

7. Use highlighters and coloured markers to colour code branches.



8. Make things stand out on the page so they stand out in your mind. (This doesn't show up well on a black and white photocopied booklet! You should use a different colour for each main branch and all its sub-branches)

9. Brainstorm ideas. Be creative.



10. Design images you can relate to which will help you remember key information.

Now, using your current topics of study, create your own mind map on an A4 sheet...



Reading Better and Faster

Most students, when faced with a textbook or chapter to study, will 'start at the beginning, read through at the same pace until the end, then stop and put the book away'. This passive approach is a most inefficient way to learn, as it can take longer and leave you bogged down in detail, with no overall grasp of the subject matter. By adopting a more *active* approach to reading, you can begin to read better and faster within a very short space of time. The **PQ2R** method has proved to be most successful in this regard. Try it for the remaining weeks of term and see the benefits.

P = Preview

Begin your reading task with a quick skim (2-3 minutes) of the text, trying to get an overview of the chapter or text. Look for section headings, illustrative charts and diagrams, signposts or key words. Don't start highlighting text at this point.

Q = Question

This is the key to active learning. Look for answers to the basic questions of "Who?", "What?", "Where?", "Why?" and "When?" Identify the main theme or learning point of the particular text.

R = Read

Now read the chapter carefully, with these questions in mind. Your mind will be actively looking for answers as you read. Work with a pen and paper, make brief summary notes, look for 'topic sentences' that summarise the most important point in a paragraph or section and highlight them, if necessary. Vary your reading speed - move quickly over lighter, less important material and slow down when you come to a difficult section.

R = Review

Always check your understanding of the material by reviewing and testing your recall before putting the text away. Look at the notes you have taken and check that they answer your initial questions. Summarise your findings from this study session.

In addition, good summary notes make retrieval of information quicker and easier.

Short spurts of revision (25 minutes) are most effective. Your concentration lapses after an hour and you will need to take a break. The best method is revise for 2 x 25 minutes with a 5 minute break in between each session. Then have a break at the end of the hour - Maybe go for a walk!

- **Sort out your filing system**

If you haven't already done so, get your subject folders and notes organised immediately. Invest in some ring binders, dividers, plastic pockets, etc. Have a separate folder for each subject (a permanent reference point) and then keep a 'current folder' for managing notes in progress.

- **Less is always more**

When writing notes, remember they should contain a summary, not an extensive repetition of what is in the textbook. Don't crowd the page. Stick to main headings and sub-headings. Use abbreviations where appropriate. Try to reduce what you need to know on the topic down to one A4 sheet. Once you have an overview, it is easier to fill out the detail.

- **Make your notes visual**

Ensure your notes have a memorable appearance so that you can recall them easily. Use illustrations, diagrams, graphs, colours, and boxes ('a picture is worth a thousand words'). Arrange the material in a logical hierarchy (title, sub-point, explanation, example). Ideally, you should be able to close your eyes in an exam and visualise a particular page of notes.

- **Beware of transcribing and highlighting!**

Merely re-writing the text from the book into your notes does not ensure retention. Try to put things in your own words and devise your own examples - this will make the material more meaningful. Only use the highlighter pen AFTER you have previewed and questioned a text, thus ensuring you identify the most important material and you avoid the creation of a fluorescent textbook!

- **'Save' your notes carefully**

Practice following the logic of your computer files, when storing information. Think - "Where does this material best fit (subject, section, topic, sub-topic, etc.)?" In this way, you will ensure that it is efficiently processed and easily retrieved both physically (during revision) and mentally (when you need it in an exam).

Improving Memory

We often blame our memory for poor academic performance ("I'm no good at remembering names / dates / rules / verbs / characteristics") when really we should be addressing our faulty input and storage system. There is a big difference between short-term and long-term memory. If you study a topic one night and can recall most of it the next morning, don't be fooled into thinking that you will be able to remember it accurately in two months time.

If the goal is to improve your long-term memory, then the key to success is based on the efficiency of input (the 'mental filing system' we employ). Reducing the burden on the limited short-term memory, and channelling information into long-term storage, is based on the creation of patterns and the avoidance of randomness.

- **'Chunking'**: as the average person can only hold seven 'items' in short-term memory, grouping items together into 'chunks' can increase capacity. This is generally used for remembering numbers (think of how you remember phone numbers by grouping the seven digits into 2 or 3 chunks) but can be applied to other listings in various subjects.
- **Repetition**: Studies indicate that 66% of material is forgotten within seven days if it is not reviewed or recited again by the student, and 88% is gone after six weeks. Don't make life harder for yourself - build in a brief daily and weekly review of material covered. It will save you having to re-learn material from scratch!
- **Application and association**: The best way to channel material to long-term memory is to organise it into meaningful associations. Link it to existing information and topics and create vivid personal examples which act as 'mental hooks' or 'cues' for recalling material in the future. Thus, new items are put in context. If you learn a new formula / verb / rule, try to put it into practice immediately with a relevant example.

Memory Techniques

One way to learn anything is through repetition. The more you repeat it, the more it etches the information in to the brain. Another way to learn information is to write it down. Re-writing key facts and important words from your study notes will help you remember the information more successfully.

Here are the first 12 elements in the Periodic Table, in the correct order:

Hydrogen, Helium, Lithium, Beryllium, Boron, Carbon, Nitrogen, Oxygen, Fluorine, Neon, Sodium, Magnesium.

Write them down in the correct order and test yourself by covering them up and revealing them one by one, if you get an answer wrong, start again!

<u>Element Name</u>	<u>Element Symbol</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____
11. _____	_____

Image Chain

Another effective way of remembering is through the use of memorable images, you just need to use your imagination! Anything can be turned into a list of words - topic headings in an essay, equipment for a science experiment, names, ideas, historical dates - and then transformed from words into memorable images.

The trick is to make the pictures memorable, so exaggerate them, make them colourful, funny and strange.

You can even turn them into a story, where each part of the chain takes you to the next. Using the Elements from the example above, or your own study notes, create an image chain on the blank sheet.

Time Management

Research has shown that the better a student's time management, the better their grades and the less stress they experience in regards to their academic life generally. Time management is a key part of being organised.

Time management is about getting the balance right between all the things you do in your life. For students, study time should be a very high-priority activity because study gives you opportunities.

Here are four top tips for managing your time more efficiently and consequently, achieving more with your time and reducing stress!

1. Time management is about organising blocks of time so that you maximise your opportunities to learn. Taking responsibility for your study time and protecting it will mean you minimise the stress of being over-committed.
2. Being punctual, keeping to a timetable and completing work on time are basic responsibilities for all students. Your planner is the key to staying on top of these responsibilities.
3. With all your other commitments, time at school and daily activities, some days there may actually be only quite a small amount of study time available each day. Using your planner, work out when your study time is each day.
4. To make effective use of your time, be clear for each task:
 - a) What you are trying to achieve
 - b) How much of your time it is worth.

Working out your study times

You know how much study time you have available in an average day, so now you can work out when to use that study time to best effect in an average week.

Tips for allocating study time:

- Spend your study time in 25-minute blocks.
- Try to have your study time at around the same time each day. This helps you get into a regime
- Think about when your best times for study are. Do you like to get it done early? Do you find it easier to concentrate later in the evening?
- Create a study/revision planner

Creating your Study/Revision Planner

It is important to have a balance of study, leisure and rest, creating and sticking to a revision planner is an excellent way to organise your study time out of school. In the table below, carry out the following steps:

1. Block out time that you attend twilights or after-school clubs
2. Block out any times that you usually do any other after-school activities e.g. Football/Tuesday/18:00 - 19:30
3. Block out time you usually spend on daily activities, such as mealtimes
4. Now, using your homework timetable in your contact book, allocate your study time total into each day (1 hour or 2 x 25 minute sessions with 2 x 5 minute break for each subject).

	SCHOOL/ TWILIGHTS	16:30 - 17:30	17:30 - 18:30	18:30 - 19:30	19:30 - 20:30	20:30 - 21:30	21:30 - 22:30
MONDAY							
TUESDAY							
WEDNESDAY							
THURSDAY							
FRIDAY							

Once you have decided when your study times are going to be each day, let the rest of your family

	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00	18:00 - 19:00	19:00 - 20:00
SATUR- DAY										
SUNDAY										

know, that way they can help and support you and ensure that distractions are kept to a minimum.

Give your study timetable a trial run of a week or so and then fine-tune it so it works as well as possible - Use the blank weekly timetable on the next page to produce your final master-copy.

Week No:

Weekly Revision Timetable

Week Beginning:

DAY	SCHOOL/(twilights)	16:30 - 17:30	17:30 - 18:30	18:30 - 19:30	19:30 - 20:30	20:30 - 21:30	21:30 - 22:30
Monday							
Tuesday							
Wednesday							
Thursday							
Friday							

DAY	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00	18:00 - 19:00	19:00 - 20:00
Saturday										
Sunday										

Accept the challenges so that you can feel the exhilaration of victory

George S. Patton, Legendary American General

Week No:

Weekly Revision Timetable

Week Beginning:

DAY	SCHOOL/(twilights)	16:30 - 17:30	17:30 - 18:30	18:30 - 19:30	19:30 - 20:30	20:30 - 21:30	21:30 - 22:30
Monday							
Tuesday							
Wednesday							
Thursday							
Friday							

DAY	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00	18:00 - 19:00	19:00 - 20:00
Saturday										
Sunday										

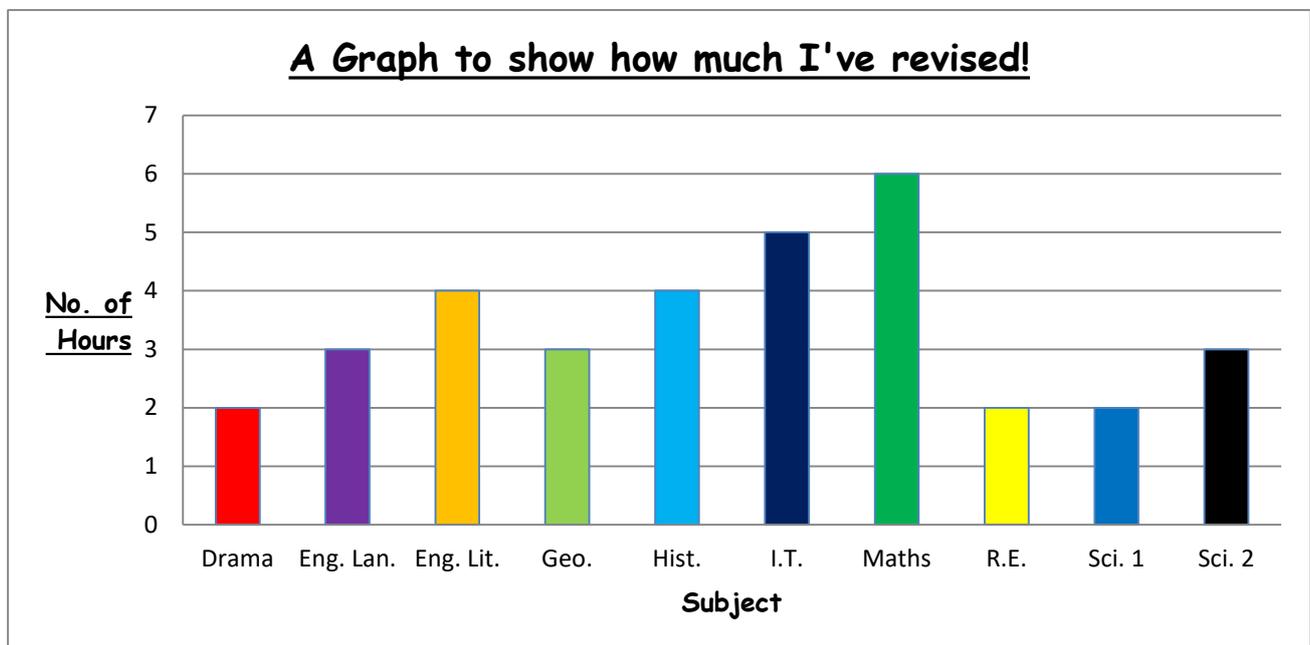
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Revision Planning and Exams

Planning your revision will help you to use your time productively, ensure you cover what you need to and help identify where you need to put in the most effort.

1. Find out when your exams are for each subject. Your teachers will tell you these dates - and any others you need to know. Put these dates in your **monthly planner** (Back of this book) and closer to the actual exams, double check the date, time and location of each exam so that you are 100% certain where you need to be and at what time.
2. Work out how much time there is between the date you plan to start revising and when your exams start. Start revising as early as you can.
3. Prioritise your exam list in terms of revision time required.
 - Which subject and paper is most important?
 - Which needs the most revision
 - Often subjects you find harder need a bit more revision time than subjects you find easier.

Keeping a record of how much you have revised is an excellent way to see what areas might need more revision, as well as being able to plot and chart how much revision you have done. **It also works well as a motivational tool** - Students who put the work in to their studies, nearly always get the results they deserve!



Use the graph paper at the back of this booklet to keep a record of how much revision you have completed. Plot the subjects on the 'X' axis and the number of hours on the 'Y' axis. Keep it on your bedroom wall at home so that you can chart your progress. The more you revise and get into a routine, the more your confidence will grow!

You can also check that each subject is being given a fair amount of time.

The Examiner's View



You can largely determine the end result by simply heeding the voice of experience. The job of examiners is to give you marks, not to take them away, but they are powerless to help you if you fall into the most common traps. These are the **biggest pitfalls** they have identified:

- **Not reading the paper correctly**

Examiners say that this is one of the most regular and fatal errors. They call it the '*triggered answer*'. You have your pre-prepared answer ready but you don't look at the exact terms of the question and therefore supply the wrong information in your answer.

- **Understanding the question**

Understanding exam language and what the question is really asking you is **KEY** to succeeding and getting the marks that you deserve, when answering a question highlight or underline the crucial parts of the question. (See Exam Language)

- **Not finishing the paper**

Mismanaging your time within the exam can easily cost you a full grade. The biggest exam 'crime' is to leave suitable questions unattempted. **Remember: it is much easier to get the first 20% of the marks for any question than the last 5%.** Therefore, if you find yourself stuck for time as you struggle through your third answer out of five, do not spend your remaining time extending and perfecting that answer. Instead, move on to questions four and five, even if your attempt is sketched or in point form.

- **Ignoring the marking scheme**

You must take the marking scheme into account when you allocate time to each question or part of a question. If the marks allotted to a question clearly indicate that a few paragraphs are sufficient, do not write an essay on the subject, equally if it's a 6-Mark question, one sentence isn't enough! Avoid the temptation of writing everything you know about a topic - just give the appropriate amount of information.

- **Repetition**

Make the point once. There are no extra marks for restating facts, even if you phrase them differently. Examiners say repetition is a very common mistake, as well as wasting time.

- **Missing part of a question**

Sometimes, part of a question can be carried onto the next page and, in the pressure of the moment, you don't see it. As a consequence you might fail to do a compulsory part of a question or miss out on the chance to take an option that would have suited you better. Always take time to familiarise yourself with the whole paper before you start answering it.

- **Rough work**

Include your rough work with your exam script - you might get some credit and marks, even if your ultimate answer is incorrect, for formulae or calculations contained therein.

Exam Language

Account for Explain the process or reason for something being the way it is/explain the causes of	Evaluate Give an opinion by exploring the good and bad points. It's a bit like asking you to assess something. Attempt to support your argument with expert opinion.
Analyse Divide into parts and describe each part.	Explain Describe, giving reasons and causes.
Compare Show the similarities (but you can also point out the differences)	Factors The fact or circumstances that contribute to a result
Complete Finish off.	Give an account of Describe
Conclude Decide after reasoning something out.	Give reasons for Use words like 'because' in your answer, as you will be explaining how or why something is that way.
Concise Short and brief.	Illustrate Show by explaining and giving examples that prove your answer is correct.
Contrast Show the differences - compare and contrast questions are very common in exams - they want you to say how something is similar and how it may be different too.	Indicate Point out, make something known - show and demonstrate
Discuss Explore the subject by looking at it's advantages and disadvantages (i.e. for and against) - give both sides of an argument and then give your opinion.	State Write briefly the main points.
Estimate Guess the amount or value	Summarise Give the main points of an idea or argument. Leave out unnecessary details that could cloud the issue.