

Year 11

Revision techniques and planning for success in exams



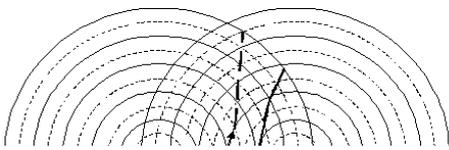
Revision Strategies

General:



Firstly, don't panic. The storage capacity of the brain is almost infinite. The estimated number of connections your brain can make between ideas is 1 followed by 800

The main problems people have remembering what they've revised are:



1. **Interference** – when one bit of information gets confused with another. Avoid studying similar subjects together to reduce this.



2. **Lack of meaningful revision** - a 'sense' of work without real work. This often happens when you are, for example, checking facebook/email whilst you revise: you think you're revising, but really you're thinking about facebook/email: your brain is in social mode, not learning mode.

3. **Stress/Panic** – this happens often when you leave studying too late, and therefore overload your working memory. Remember to think positively and plan your time wisely.



How our brains work:

When we learn something for the first time, we use our working memory. The working memory is quite small (typically between 5-9 items). Therefore, to learn something properly, we have to shift it from our working memory to our long-term memory. In order to do this we need to use **repetition** - constantly revisit our learning.

General tips for revision:

1. **Start early.** Do not try and cram everything the night before. Plan a revision timetable that spaces out what you have to learn and allows enough time for each subject and the topics within that subject. It is best to work backwards from the exam week itself – planning last minute recap revision the night before named exams, with another session for that subject a few days earlier and another a few days before that etc. Recap at the start of a new session to see what you remember about this subject from the previous session of revision.



2. **Doing something with the material we want to learn is 100% more effective than just reading it, because it actually forces us to check that we understand it.** Some things need to be practised not just read or discussed or explained to someone e.g. maths questions, diagrams in lots of subjects, language vocabulary, practice exam questions in history and geography etc.

3. **Get plenty of sleep.** - Our brains work more effectively



4. **Revise in short bursts** – 35--40 minute chunks is a suggested model.

5. Research also shows that **variety** is better than spending too long on one subject – spend 35/40 mins (or two short sessions) on one subject/topic, then have a break, then revise a different subject/topic .



6. **Don't work with the TV on.** Your brain will be confused by trying to process what you are learning with the interference of input from the TV: you are overloading your working memory and dividing your capacity for paying attention. If you are listening to music (and some people do find that it helps block out other noises in the house) choose QUIET instrumental music, not lyrics, as lyrics will interfere with the words you are trying to learn. Listening to different pieces of music for different topics may help you link a particular piece of music to particular learning, making it easier to recall.



7. **Revise the same material in different ways,** so your 'repetition' isn't just doing the same thing again. This makes sure that you have used a variety of techniques so it's more likely to stick.



8. Create a 'big picture' or general overview of your subject topics first and learn it, then study different parts in detail.

Revision needs to be active - you need to be doing something with the information, not just reading or highlighting

Active Revision strategies

STEPPING STONES

Especially useful for:

If you do the steps in the same order:

- Chronology
- Sequences

If you do the steps in a different order each time:

- Creating flexible understanding of big topics, where there are lots of links between ideas.

What to do:

Write each part of what you want to remember on a big piece of paper and put them on the floor.

Only write key words and draw diagrams too. Bright colours will help.

Jump /hop/walk between them shouting out what is on them.

Why does it work?



Why does it work?

- In the same way as stepping stones, above.

TEACH IT

Useful for anything.

What to do:

Teach someone else what you want to learn.

Why does it work?

- Because other people don't always understand what you mean, so they ask questions which help you to express yourself more clearly. These questions make you think about the meaning of what you've learned, so you have to understand it, rather than just remember the words you learned.

MAKE A MOVIE

Especially useful for:

- Remembering "stories"; whether real or fictional.
- Can also be used for any process.

What to do:

- A) Make up a role play, silly sketch, dramatic speech and perform it.

If you video it, you can watch it too. Try adding in an extra element when you watch it, such as writing notes (doodled or written), to add an 'active' process rather than just watch passively.



OR

- B) Make a video of yourself 'teaching' what you want to learn and watch it. Add in an extra element when you watch it, such as writing notes (doodled or written), to add an 'active' process rather than just watch passively.

Why does it work?

A) Because it is active, whilst you're making it, visual and auditory when you watch it, so it engages all our different ways of learning.

RECORD IT

Useful for anything.

What to do:

- a) Record what you want to learn and listen to the recording over and over again.



b) Remember to vary the tone, speed, loudness and pitch of your voice to make it interesting to listen to. Put in claps and bells or any other auditory clue to highlight important ideas. Funny accents will also help.

c) If you have friends who want to help, have each person record a different section of the notes, so you can link a particular voice with a particularly topic.

d) Listen to your notes whenever you're doing something ordinary such as sitting on the bus, at the gym or walking the dog. It is especially good if you listen just before bed time and then go straight to sleep. Test

yourself when you first wake up, to consolidate your memory

Why does it work?

- Revising just before you sleep (and that means just before, not once you have checked facebook, or texted ten people) means there is no new information going into your working memory to dislodge what you've revised before your brain starts transferring it to your long term memory.

SING IT / CHANT IT

Useful for anything.

What to do:

Make up chants, rhymes, jokes, raps, songs, poems. Make sure you build in a physical activity such as clapping, stamping your feet or dance moves.



CLAPPING CHANT (Y7 Biology 2013: characteristics of all living things)

Excretion, getting rid of waste

Movement, go at your own pace

Nutrition is good for you

Respiration, breathing we all do

Reproduction is making babies that cry

Growth is when we reach the sky

Sensitivity is feelings, feelings, feelings (echo to quiet)

RHYMES:

E.G “In fourteen hundred and ninety two, Columbus sailed the ocean blue.”

E.G “Enzymes are in heaven at PH7”

Or try a **SONG**, like The Circle Song, for revising radius, diameter, area and circumference:

<http://www.youtube.com/watch?v=IWDha0wqbcl!>

Or write a **POEM**, about the topic you are trying to revise - our brains like rhyme..

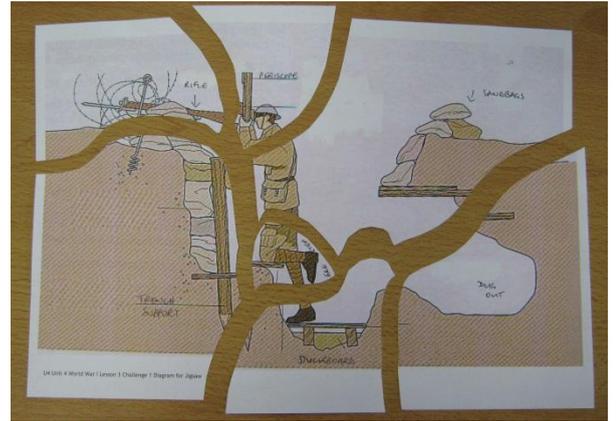
Why does it work?

- Because our brains like things which rhyme.
- Because our brains like things which make us smile.
- If you build in physical activity, it is auditory, kinaesthetic and emotionally resonant – 3 out of 4 factors which our memories like to work with.

JIGSAW

Especially useful for:

- Diagrams or pictures
 - a) Photocopy a key diagram and then cut it into pieces, so each part of the diagram is on a separate piece.
 - b) Put it back together or give it to a study partner to reassemble.
 - c) N.B. you can make a variation of this jigsaw by copying different parts of a diagram onto different cards and then use these as the jigsaw pieces.



Why does it work?

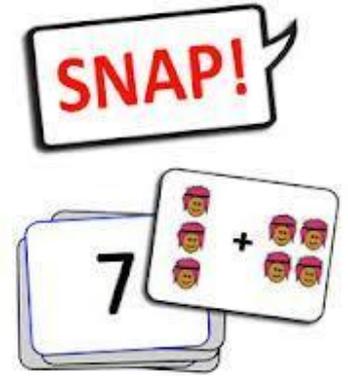
- Because you are deconstructing it thoughtfully, by cutting it into pieces, then testing your memory by reconstructing it.

GAME IT

Useful for anything

Make games of your revision and learning, such as:

- **Key words snap:** write as many key words from the topic as you like onto cards, one word per card. Play snap, against yourself or a partner. Every time there is a link between two of the key words, shout 'snap', explain the connection, if your partner accepts it you have won the cards. If you were revising GCSE History for example, and the words were 'communism' and 'Czechoslovakia' you might 'snap' these by saying that Britain was so afraid of communism that she excluded Russia from the meeting with Hitler about the future of Czechoslovakia in 1938.



- **Index card time trial:** write a term on one side and the definition/key information on the other.



You have to accurately identify the information on the reverse within a set time. Play against a partner; you decide on the time limit and how many cards you have to accurately describe in that time. For example, you could have 3 cards in 30 seconds to score a point. You could also do this with questions and answers, rather than terms and definitions.

- **Memory game:** write each stage of a sequence on a different card. Turn them over. Turn over one at random and you have to say what comes before and what comes after. You could set yourself a time limit too and play against a partner.



The only limit is your imagination!

Why does it work?

- Because you are actively processing the information by making the game.
- Because, by playing several times, you are repeating the revision.
- Because it is auditory and fun. If you include pictures/symbols/colours/different fonts on the game cards it will also be visual: 3 out of 4 factors which our memories like to work with.

USE AVAILABLE WEB-BASED PROGRAMS



E.G. Bitesize and MyMaths.

Why does it work?

- Because it practises retrieving the information you've learned so reinforces your revision.
- Because it's a different from working on paper so gives you an additional type of memory.

ACROSTICS

Especially useful for:

- Sequences of ideas, or spellings:

What to do:



Make up an acrostic to remember the order of events, or the order of letters in a word:

e.g. Please Excuse My Dopey Aunt Sally [PEMDAS]

Parentheses, Exponents, Multiplication, Division, Addition, Subtraction.

This mnemonic allows us to remember the order of operations in maths.

Why does it work?

- Because the acrostic you choose will have emotional meaning, so it works as a peg into your emotional memory.
- Because the acrostic sentence has an overall meaning, which hold together the separate stages of a process/separate letters of a word and so make it more memorable.

MAKE IT STICK

Especially useful for:

- Those odd facts that won't stay in your head!

3 options:

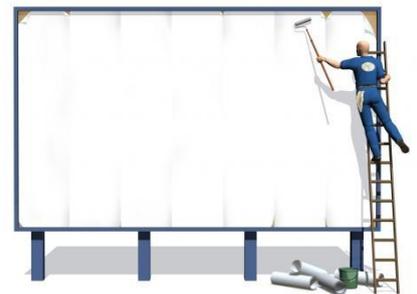
a) Splat - Write the fact/date/equation on your hand, screw up your hand as if you are screwing up a piece of paper. Now 'throw' the fact at the wall as hard as you can. Imagine the fact now splattered across the wall. Visualise it carefully. Now make it grow out towards you and sink back towards the wall. Now imagine it spinning round and round on the wall and settling back to the start again. Now imagine it changing through each colour of the rainbow.



b) Stamp – write the fact/date/equation on a piece of paper and put it on the floor. Now jump onto it. Imagine it transferring in ink to the bottom of your shoe. Now imagine it spreading into the bottom of your feet and travelling up through your body – like Blackpool rock! Imagine it appearing on your hands (look at your hands as you do this and 'see' it appear). Shut your eyes and open them, and it is still there. Try and rub it off but you can still see it, like indelible ink.



c) Billboard – Imagine going home from school and passing a billboard, surrounded by bright lights. Into the billboard your face appears! You are holding up a sign with the equation/fact/date on it and pointing to it. You see yourself come to life in the billboard – like a Harry Potter newspaper! You are shouting out the fact and pointing to it like a crazy person.



Why does it work?

- Because you're using more than one learning path: visualising, doing something physical, and involving yourself 'emotionally'.

THINKING MAPS

Useful for nearly everything.

Choose the right kind of map for the type of thinking you are doing – see below.



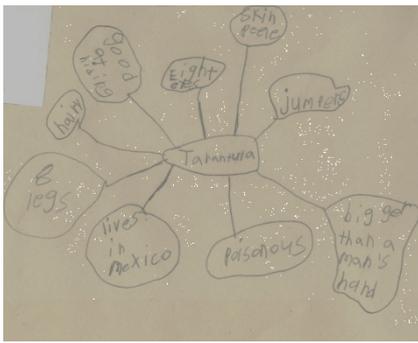
You can draw/write these maps on paper or create '3D' versions on a board. This is a L6 example of a double-bubble map, comparing the strengths and weaknesses of Germany in 1890. It is also colour coded; different colours for:

- The political system
- The economy
- The army
- Social stability.

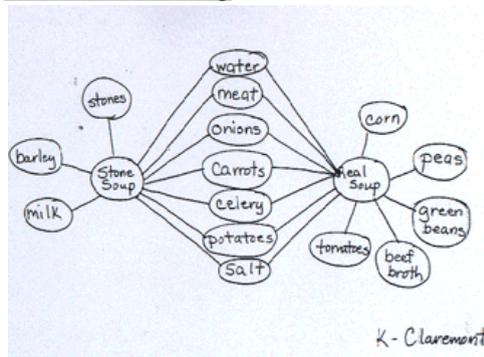
Why does it work?

- Because you are using a specific shape of map for specific types of thinking, so it helps you to organise your thoughts, rather than just having lists of random information in your head.
- Because it creates a visual structure for thoughts you have written out, so it's more than one type of memory.
- Because, if you use the frame, it can help you to plan essays, making sure your ideas are backed up with specific facts, examples or quotations.

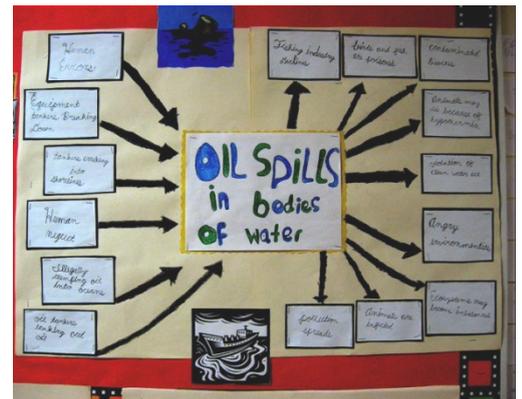
Bubble Map - Describing



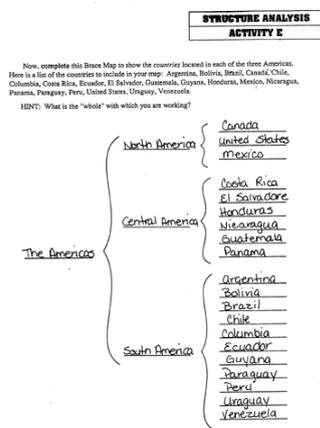
Double Bubble Map - Comparing and Contrasting



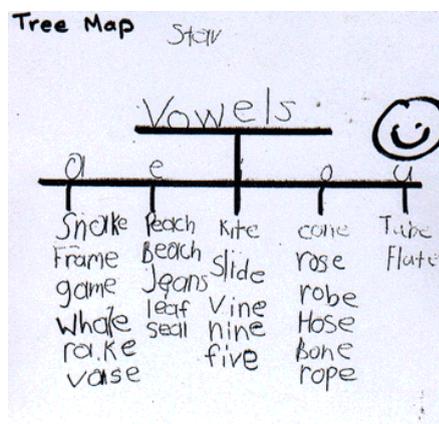
Multi-Flow Map - Cause and Effect



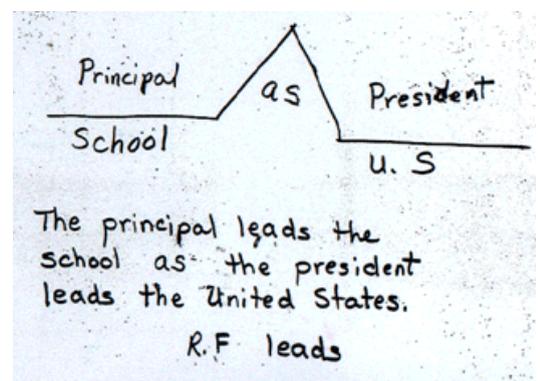
Brace Map - Whole to Part/Part to Whole



Tree Map - Categorisation



Bridge Map - Exploring Analogies



Around any map can be placed a frame, which is a metacognitive tool for showing where ideas come from, e.g. historical facts which gave you certain ideas, or quotations from books which reveal certain techniques of the author. For example:

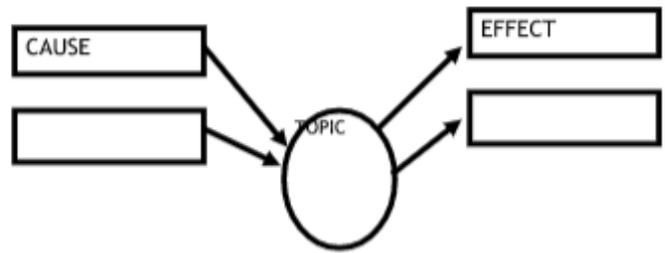
<p>CIRCLE MAP</p> <p>YOUR IDEAS</p> <p>TOPIC</p> <p>FOR RECORDING YOUR THOUGHTS</p>	<p>BRIDGE MAP</p> <p>A volcanic eruption</p> <p>Opening a shaken can of coke</p> <p>Is like</p> <p>Strengths of the analogy:</p> <p>Weaknesses of the analogy:</p> <p>FOR EXPLORING ANALOGIES</p>
<p>BUBBLE MAP</p> <p>DESCRIBING</p>	<p>DOUBLE-BUBBLE MAP</p> <p>COMPARING AND CONTRASTING</p>

FLOW MAP



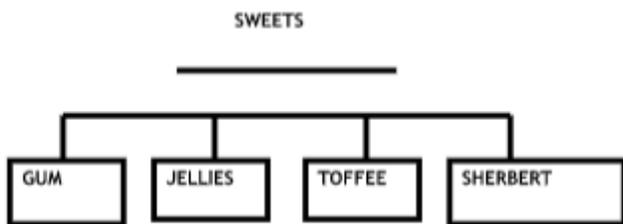
SEQUENCING

MULTI-FLOW MAP



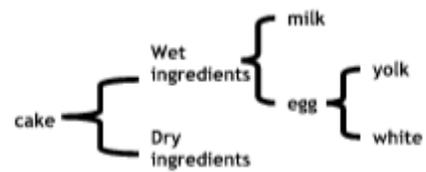
CAUSE AND EFFECT

TREE MAP



CLASSIFYING

BRACE MAP



(DE)CONSTRUCTING

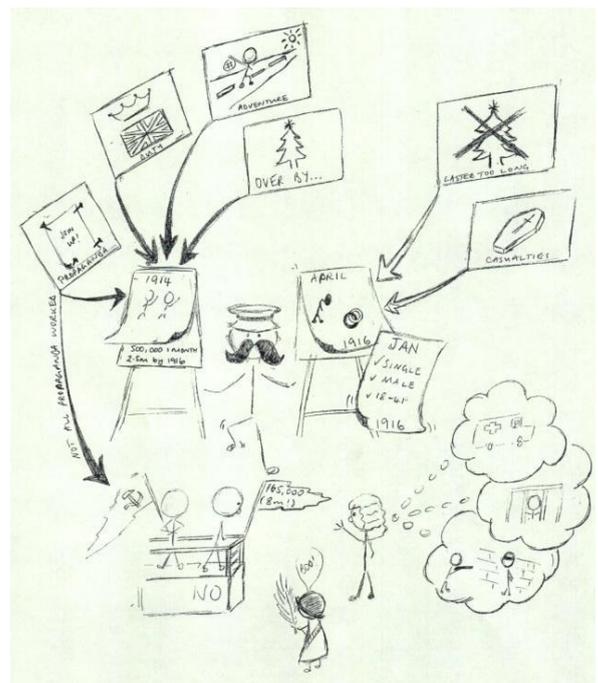
DOODLE IT

Especially useful for:

- Revising whole topics

What to do:

- Collect together all your notes on one topic (this example here is a GCSE topic: recruitment for World War I)
- Now create a picture which links all of this information together.



c) Make sure all of the bits of your picture fit together.

d) Ideally, use colour, different font shapes and sizes to increase the visually memorable elements.

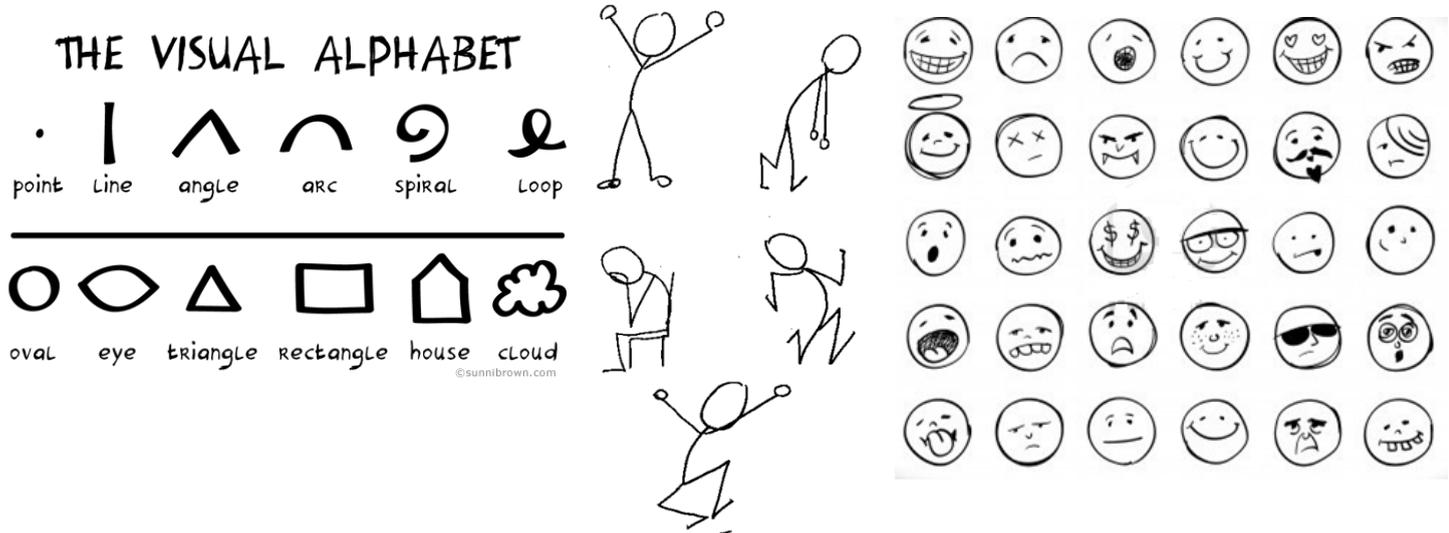
Why does it work?

- Because it uses every aspect of your memory – words, pictures, actively doing something and, because you have created it personally, it has emotional significance. All of these things help move information from the working memory to the long-term memory.
- Because it is really quick to revise! Although it takes time to do, you can scan over it to remind yourself really, really quickly.

NOTE:

YOU DO NOT HAVE TO BE ABLE TO DRAW!

If you can draw 'smileys', stick men and these shapes, you can doodle your learning!



VARIATION: BACKWARDS PICTURES

Especially useful for:

- Revising cause and effect – why things happen the way they do (whether in history, scientific processes, the plots of books, etc.)

What to do:

- a) Draw a picture of the last stage of the process/plot/event.
- b) Then draw the second to last stage. Decide what to draw by asking yourself ‘why did this (last stage) happen?’
- c) Repeat until you get to the start.



For example, this is the story of Germany's union with Austria in 1938. It was created by doing the last picture first and working back to the beginning.

Why does it work?

- Because you are starting from the effect, and you have to think back to why that happened, so you have to understand the way things developed, rather than just know that xyz happened.
-

REDUCE YOUR NOTES

Especially useful for:

- Detailed information.

What to do:

DON'T get a highlighter and highlight big chunks! You will learn nothing by doing this; it might make you read more carefully but it won't help you remember it.

Choose your key words (10-30, depending on how much is covered, is about right). Nouns are often the most useful. These will form the framework of your notes.

Add colour, pictures, symbols, arrows and numbers to support you.

L4.

SALADIN

We don't know much about Saladin's early life or what he looks like. The information we do have tends to be either from people who loved or hated him, so it's difficult to trust any account completely.

Saladin's real name was Salah al-Din Yusuf. He was born in what is now Iraq in c.1138. His father was a Muslim chief, so he had a privileged life and was well educated. Saladin was trained as a soldier by his uncle and, as he rose through the ranks, became popular with his men.

Saladin's uncle worked for Nur ad-Din, who was the sultan of Syria and Egypt. He ruled Egypt for Nur ad-Din. When his uncle died, Saladin took over his job, ruling Egypt on behalf of the Sultan. He appointed lots of his family as important officials. Then, when Nur ad-Din died in 1171, Saladin proclaimed himself Sultan of Egypt. Saladin justified his claim to the throne by claiming that he was the only person who could protect Muslims from the Christians (read a bit more to find out about the Crusades). Fear of this outside threat united people behind Saladin.

By 1174 he had taken control of Syria as well. He was crowned in Cairo in 1174. Saladin believed in absolute rule. But he also believed that kings should look after their subjects. He asked his chief minister, Imad al-Mulk, to write a book about how kings should behave. This book was available for all Saladin's subjects to read. This book said that kings should not be selfish, greedy or proud. Instead, they should be generous, merciful and just.

He is most famous, however, for capturing Jerusalem during a war known as the Third Crusade. A Crusade is a Christian holy war, like a Muslim Jihad. In 1099 Christian soldiers from Europe had captured Jerusalem from the Muslims. In 1187, Saladin recaptured Jerusalem for the Muslims after defeating the King of England at the Battle of Hattin. When his soldiers entered the city of Jerusalem, they were not allowed to kill, rob people or damage the city. Such behaviour was standard for soldiers who had won a battle, so Saladin's orders amazed and pleased the people of Jerusalem. After Saladin's victory, Christian pilgrims in Jerusalem had to pay Islamic tax but were not persecuted for their religion, so they did not oppose Saladin. However, any soldiers in the Christian army who did not convert to Islam were killed.

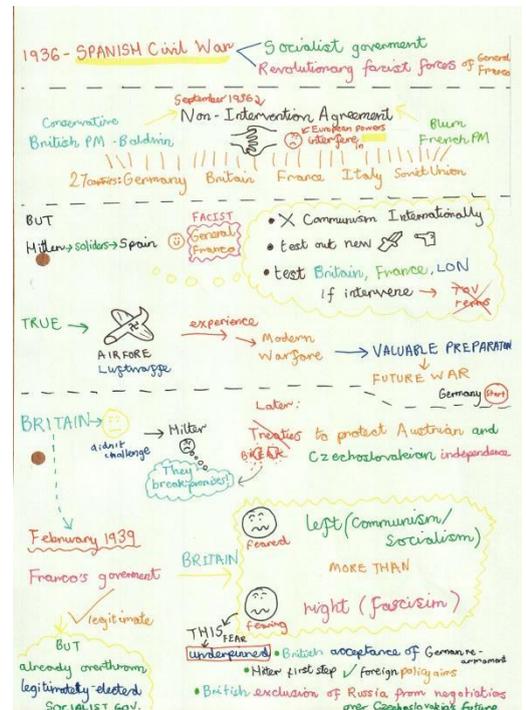
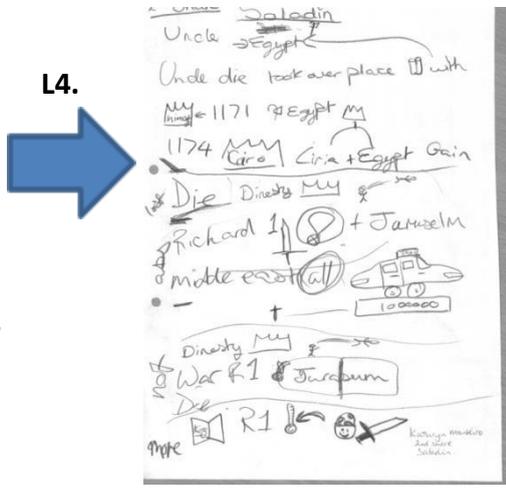
The Pope and the kings of western European countries were horrified that Jerusalem was again in the hands of the Muslims and so started the Third Crusade to reclaim Jerusalem. The King of England at the time, Richard the Lionheart, led an army. In 1191 after some terrible battles King Richard became ill. Although Saladin was fighting King Richard over control of Jerusalem, he sent his own doctor, together with fresh water and fruit to help King Richard recover.

There are two reasons. First, Saladin was a strict Muslim. One of the main beliefs of Islam is that Muslims should help those in need. Secondly, Saladin could and his men took Richard's camp with the supplies and so on what he had in terms of soldiers, equipment etc.

Saladin learned that Richard did not have enough soldiers to retake Jerusalem. Saladin agreed to a truce (an end to the fighting). He agreed that Christian pilgrims could visit Jerusalem without being attacked by Muslims. Neither Richard or Saladin particularly liked the truce, as they both really wanted total control of Jerusalem, but both sides were worn out and in October 1192, Richard left for England and the had some adventures on the way, but that's another story.

Saladin died in 1193 and his tomb is in the Umayyad mosque in Damascus, Syria. His dynasty lasted for 50 years and was then overthrown.

GLOSSARY:
JUST



GCSE notes on the Spanish Civil War.

Why does it work?

- Because you've had to process the information to reduce it to key words; so you've had to think about the meaning rather than just the words.
- Because it's quicker to read through than the original notes, so revisiting this revision is easier.

Mind maps

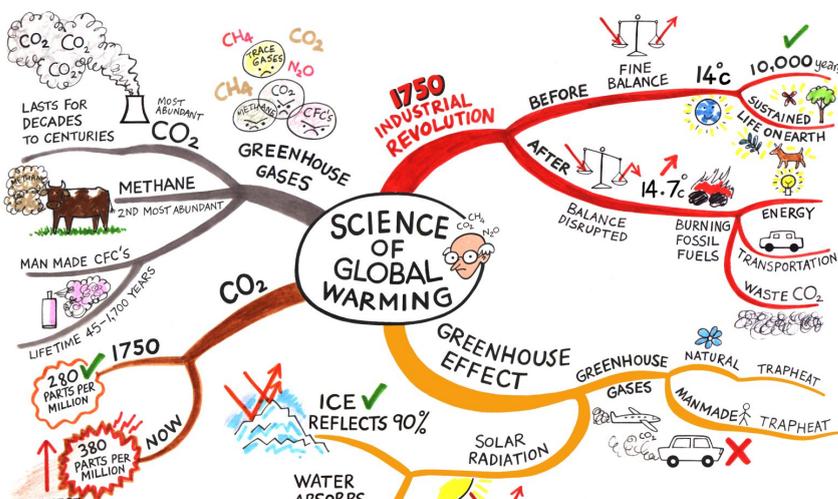
Make mind maps or association maps rather than taking linear notes. Mapping your notes by radiating key words out in a pattern of links from a central point will make best use of your memory. If you use colour and images on the maps, you'll be harnessing the power of both sides of your brain creative and logical - this helps you better retain the information.

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. (Think about what each colour represents within the topic)
8. Make things stand out on the page so they stand out in your mind.
9. Design images you can relate to which will help you remember key information.



Mind-maps can be mostly text or can include lots of images.



Some final ideas

Revision cards

Use cards. Write questions on one side and answers on the other. Then get your family or friends to test you. Merely creating the cards will help your recall. You can also use them to test yourself at any opportunity you have a spare few minutes throughout the day

Test yourself regularly

See what you can remember without notes, but avoid testing yourself on subjects you know well already. Why not ask someone else to test you?

Time and real practice.

Do past exam papers or questions against the clock, it's an excellent way of getting up to speed and of checking where there are gaps in your knowledge following all of your revision. It also allows you to apply the revision you have done o make sure you understand it in the context of the question and are not just recalling/remembering it.

Effective revision

To be effective, revision must be:

- **Active** - always work with a pen and paper, look for key points, test yourself. Never just sit down and read for a set period. Focus on tasks, not time. If you just read notes you'll only retain about 10% of the information.
- **Organised** - always ask yourself at the start of a study session "what do I want to have completed in this session?" Have a plan for what you want to cover this week and this month. Have an overview of the priority areas in each subject.
- **Test your progress** at the end of a study session. Ask yourself "what have I just learned?" Review the material covered in your revision session. Merely recognising material isn't enough - you must be able to reproduce it without the aid of the book or notes.

