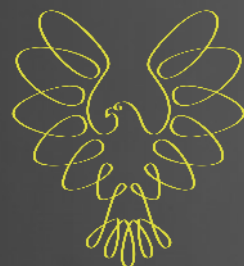


How to Build Study Skills and Develop Strong Strategies for Learning

Tom Williams – Head of Learning Support



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Presentation Overview

- Parental Support
- General Support and Guidance
- High Performance Learning - The Illusion of Learning and Retrieval Practice
- Revision - Strategy and Techniques



Parental Support

*How you can help support good learning
skills development*



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Parental support is eight times more important in determining a child's academic success than social class, according to a new study. The Campaign for Learning found that parental involvement in a child's education can mean the difference between an A* and an 'also-ran' at GCSE.

(TES, 10 October 2003)



Challenges your daughter might face as she moves up the school

- Being more self-motivated and taking more responsibility for their own learning – this can be a big change from earlier years, with most teachers viewing it as the pupil's responsibility to attend and make the most of lessons once they get to exam courses
- Asking when they do not understand. (This requires confidence and can be difficult at a time when friends' opinions hold such sway.)
- Developing their abilities to overcome frustrations, and strategies for persisting when they are learning material that they find challenging.
- Organising themselves, notes, handouts and information for different subjects, and different topics within these.



New challenges

- Understanding the exam structure and the relative importance of each piece of work/exam paper to their final grade.
- Planning and carrying out their revision.
- Perfecting their 'exam technique'.
- Completing more work at home, independently.
- Organising and planning their time over longer periods, for example to complete a coursework project.



How to be a ‘supportive force’

- Agree the balance between work and social life and stick to the agreement. Again, flexibility is the key – if a special night comes up, agree that they can make up the work at a specified time
- All learners fall behind, feel demotivated or overwhelmed, or struggle with the balance of social, work and school demands at times. When your daughter feels like this, berating and threatening them will have a negative effect. Talk to them about the issues, acknowledge their feelings and adopt a sensible attitude in wanting to find a solution
- Be flexible – use the 80/20 rule. If your daughter is sticking to what they are supposed to be doing 80% of the time, they will be doing alright. Pick your battles!
- If your daughter asks for your support, encourage them by helping them to see the difficulties in perspective. Teenagers often take an all or nothing ‘catastrophic’ approach to difficulties – “I’ve messed up this essay, I might as well give up.”

How you can help - incentives

If you are finding it a challenge to get your daughter to undertake effective private study discuss with them what would motivate them to set more ambitious targets/commit more to independent study.

Remember to be challenging but realistic. Why not try favourite food nights, a day out, activities with friends or even some time off from household chores!



How you can help – addressing concerns

- If you or your daughter has any concerns about study skills and learning it is important that the problem is tackled.
- If your daughter is struggling in a particular subject; speaking to the subject teacher for guidance and support can be an excellent way of accessing advice.
- If your daughter requires emotional support then to speak to their class/form teacher or head of year. We have access to a range of services that can offer emotional support.
- Encouraging your daughter to discuss any difficulties and problems she may have can help you to reach a solution together.



How you can help – inspiration

Help your daughter to find inspiration to study when the going gets tough

Examples might be:

- A friend or family member who is currently in 6th Form or Higher Education.
- A professional with a career they aspire to.
- You could discuss how your own or other family member's exam results helped you to achieve success.
- Role models from the media.



Parent task Number 1 !

Within your groups could you discuss the support strategies outlined and decide on one (age appropriate) strategy that you are keen to take home and implement



General support and guidance

*Helping your daughter to develop good
study habits*



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Environment

Your daughter's working environment outside school can be one of the biggest factors affecting success. Everybody is different but as a general rule your daughter needs to be away from distractions like TV, mobile phones and social networking sites. She may also need some space to store textbooks and exercise books so that she can be organised for the day ahead.

You could consider:

- Having a family 'study time' where everyone is involved - reading the paper, doing homework, revising or testing each other on what might be on an upcoming test or assessment. Wordle anyone?!
- Changing meal times to fit around study times.
- Finding opportunities for using time more effectively. 10 minutes here and there really adds up. Test questions in the car, discussing the news over dinner or simply talking about what they learnt at school today.
- During exam time having mind-maps and revision aids around the house can make use of every second.

Time Management

- The school day is long and demanding and extra curricular activities and commuting can add significantly to that. Ensure some 'down time' is factored in
- Allow enough time to complete homework (can chores be reduced when necessary?)
- Encourage a set study routine. The same time and place each day
- Make sure review and revision is factored in regularly not just at exam time.
- Help them manage assessment tasks. Do they need to be done in one go? Can an exam paper be split?



Note Taking – The 5 R's

- RECORD
- REDUCE
- RECITE
- REFLECT
- REVIEW

Create a glossary of key terms



Reading for meaning

Read critically – ask questions like:

What position is the writer presenting? What evidence is the writer giving to support his/her view? Is the evidence accurate? Has the evidence been collected using appropriate methods? Do I agree or disagree with the writer's point of view?

Take notes when reading – underline, annotate, summarise

- Survey
- Question
- Read
- Recite
- Review
- Test

Top 10 study tips

1. Establish a routine
2. Create a study environment
3. Set a timetable
4. Look after yourself
5. Reward yourself for studying
6. Have variety in your study program
7. Avoid interrupting your concentration
8. Test yourself on what you have studied
9. Don't panic at exam time
10. Ask your teachers for guidance



High Performance Learning

*The Illusion of Learning and Retrieval
Practice*



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The Illusion of Learning

*An illusion of learning is when we **think** that we understand something but we actually don't: we can only recognise it. Illusions of learning cause us to overestimate how much we actually know about a topic.*

This often happens when students recognise something they have been taught. They are confusing recognition with recall.

What can students say/do, which leads both us and them to believe they have learnt something?



The Illusion of Learning

The following may be signs of an ‘illusion’ of learning:

- Confidence
- Repetition (having read over notes, or material multiple times)
- Observing others, but not having a go themselves
- Procrastinating, or convincing themselves they understand it, because it is challenging.

Revision techniques that may promote an illusion of learning

- Reading
- Highlighting and underlining
- Watching videos and listening to lectures
- Repeating the same question/question types over again

Learning is MEANT to be hard. The harder you have to think, the more learning is happening.



Memory Strength

Retrieval Strength: A measure of how easily recalled information is, in the present.

Storage Strength: A measure of whether information is well learned.

Retrieval strength is measured through assessment, but storage strength is difficult to measure. Whilst it might be that an individual is unable to recall information at that moment, they may be able to recall that information in the future. Bjork & Bjork, 2006

	Low Storage Strength	High Storage Strength
Low Retrieval Strength	Forgot instantly!	Buried and lost forever (?)
High Retrieval Strength	Crammed!	Mastered!



How can we increase storage strength?

1. Connect new knowledge to preexisting knowledge.
2. Connect new knowledge to their prior experiences.
3. Use learning and revision techniques that require deep thinking.
4. Allow time to 'forget' before assessing or checking understanding.



		RETRIEVAL STRENGTH	
		Low	High
STORAGE STRENGTH	High	Childhood phone number	Current phone number
	Low	Hotel room number from last year	Current hotel room number

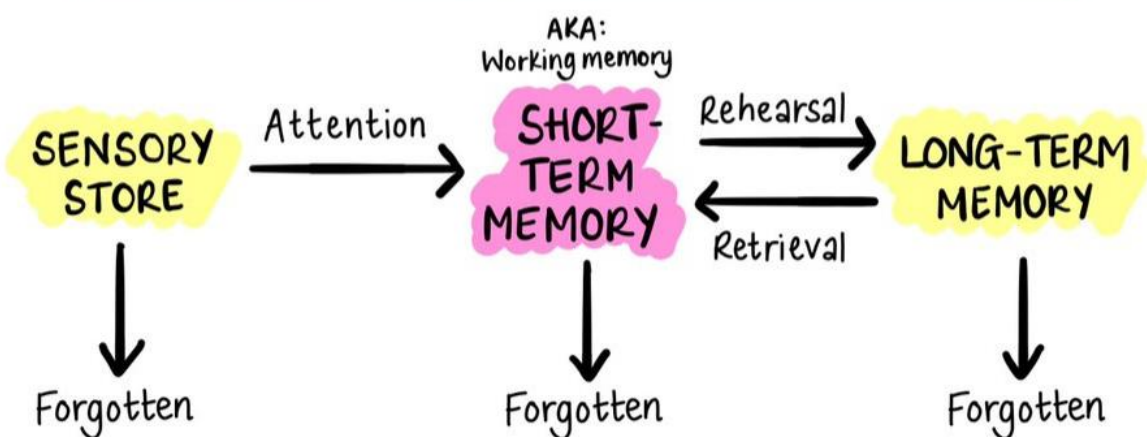
Retrieval

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@MissH_biology

KATE JONES

Practice

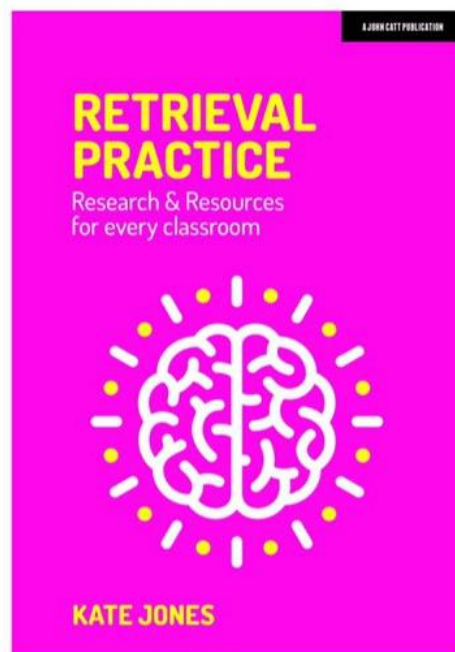
The act of recalling learned information from memory (with little or no support) and every time that information is retrieved, or an answer is generated, it changes the original memory to make it **STRONGER!**



THE MULTI-STORE MODEL OF MEMORY BY ATKINSON & SHIFFRIN (1968)

Peterson & Peterson (1959)

→ Almost all information stored in short-term memory that is not rehearsed is lost within 18 to 30 seconds!



'Using your memory shapes your memory'

RETRIEVAL STORAGE

→ how well information is embedded in long-term memory

RETRIEVAL STRENGTH

→ how easily a piece of information can be brought to mind when required

Learning = a change in long-term memory

'if nothing has changed nothing has been learned'

Meaningful learning is about producing organised, coherent and integrated mental models that allow people to make inferences and apply their knowledge. (Karpicke, J. 2012)

THE BENEFITS:

- ① Retrieval practice aids later retention
'every time you retrieve a memory it becomes deeper, stronger and easier to access in the future'
- ② Testing identifies gaps in knowledge
- ③ Testing causes students to learn more from the next learning episode
- ④ Testing produces better organisation of knowledge



- ⑤ Testing improves transfer of knowledge to new contexts



- ⑥ Facilitates retrieval of material that wasn't tested



- ⑦ Improves metacognition



- ⑧ Prevents interference from previous material when learning new content



- ⑨ Provides valuable feedback to teachers



- ⑩ Regular testing encourages students to study more



Evidence shows that retrieval practice is *especially effective at increasing longer-term retention* and generally outperforms more common strategies such as repeated studying or even more elaborate ones like concept mapping (McDermott, 2021; Karpicke & Blunt, 2011; Roediger & Karpicke, 2006). Research in classrooms demonstrates that retrieval practice is an *extremely robust strategy across age groups and subject domains* (McDermott, 2021). Retrieval practice also *aids in higher-order thinking*; it's not just for memorization. Students who use retrieval practice perform better on complex tasks and show improved metacognition (Pooja & Bain, 2019).

Five benefits of Retrieval Practice

1. It's a powerful strategy to support learning.



2. It can identify gaps in knowledge.



3. Can lead to better organisation & transfer of knowledge.



4. Retrieval review is valuable for the student, teacher & parents.



5. Regular retrieval practice encourages students to study & self-test more.



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Interleaving

What is Interleaving?

Interleaving is the process of **mixing up topics** when doing revision. Rather than revising one topic, followed by another, students mix up questions, or make connections between topics.

Eg. fractions, algebra, statistics, probability.

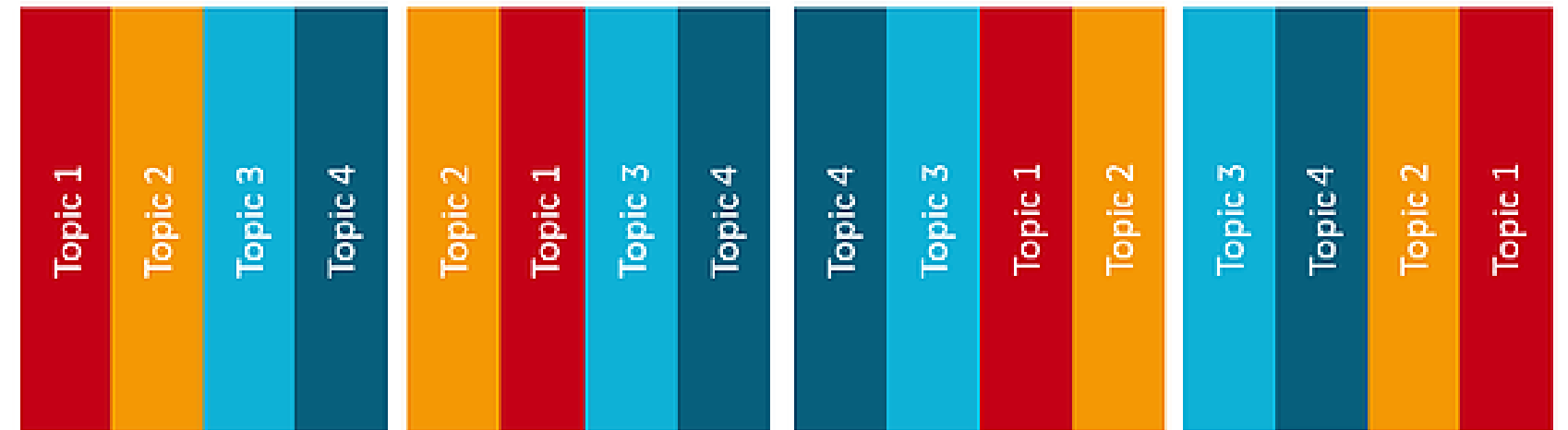
Interleaving can also refer to revising different question types, to avoid formulaic repetition.

Note: Interleaving is a very useful method of revision, but if used too regularly, can lead to confusion about the distinction between topics.

Blocking



Interleaving



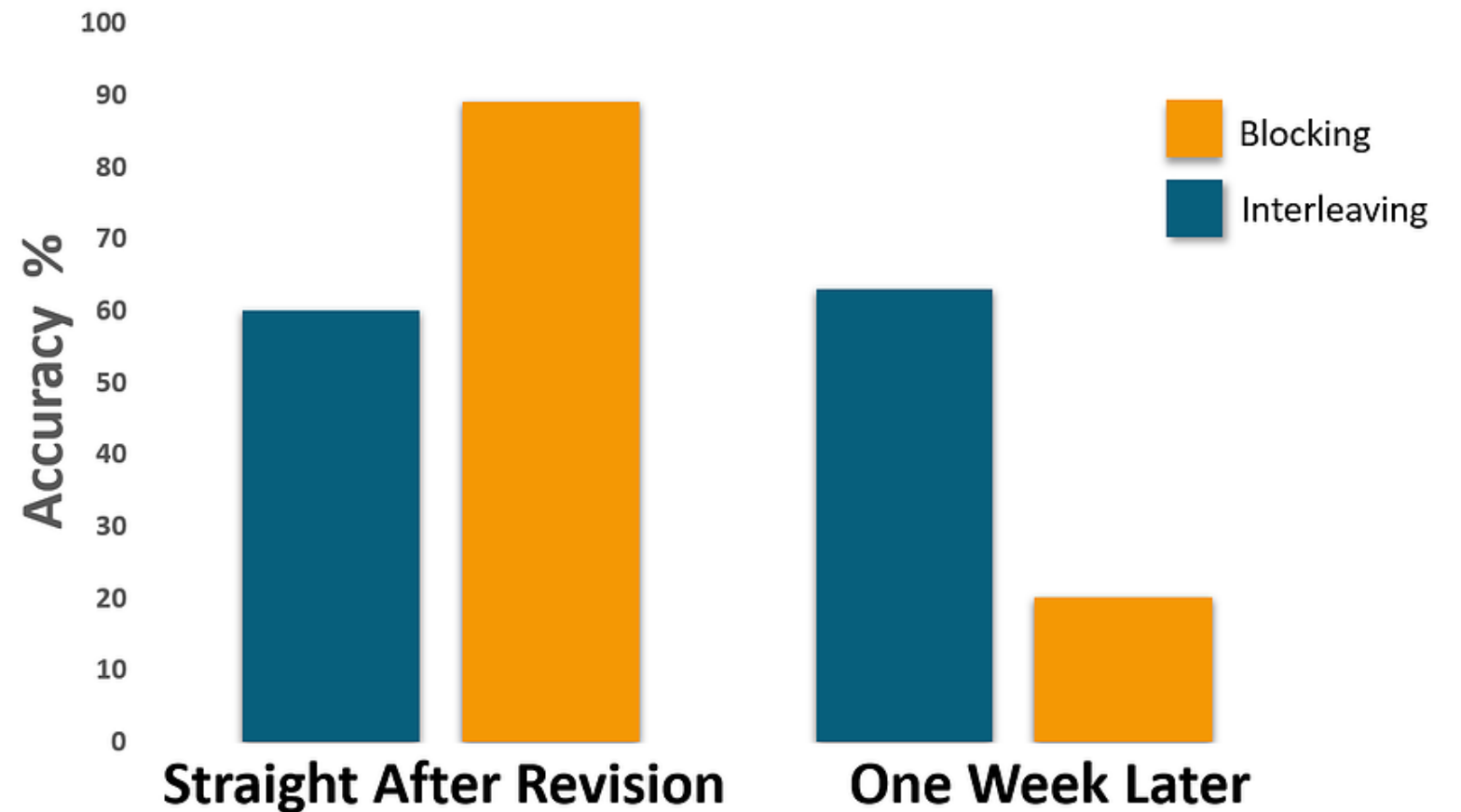
Why is Interleaving a More Effective Method of Revision than Block Learning?

It involves problem solving: remembering the context/formula of the information/question.

It improves retrieval strength: As students are forced to recall a range knowledge.

Improves categorisation: Students have to work out what topic each question is relevant to, before recalling the relevant knowledge.

It is more challenging: As above, it avoids repetition and therefore improves learning.



Revision

Strategy and Techniques



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When should they revise?

- Now!
- Help them make a revision timetable nearer exam time
- Have a set start and finish time. Use a clock to time the sessions
- Plan topics not just subjects
- Revise in short sessions
- Be an early bird!

The revision environment

- Music
- Phones equal reduced concentration
- Social Media
- Not a punishment – girls should not feel banished for revision



Active Revision

Make sure
you use a
variety of
methods

- Think about which techniques suit which subjects
- Mix it up to keep you motivated and to make your revision more effective
- Don't be passive, copying is not revising
- It is what you learn and remember that is important not what you produce

Summarising – Hitler's rise to power

The moderate political parties would not work together, although together they had more support than the Nazis. The depression of 1929 created poverty and unemployment, which made people angry with the Weimar government. People lost confidence in the democratic system and turned towards the extremist political parties such as the Communists and Nazis during the depression. Goebbels' propaganda campaign was very effective and it won support for the Nazis. The Nazis targeted specific groups of society with different slogans and policies to win their support. Hitler was given power in a seedy political deal by Hindenburg and Papen who foolishly thought they could control him. German people were still angry about the Treaty of Versailles and supported Hitler because he promised to overturn it. In fear of the Communists Industrialists gave Hitler money and support. We must not forget that Hitler was a great speaker, with the power to make people support him. . The Nazi storm troopers attacked Hitler's opponents and their rallies putting people off supporting or attending.

Summarising part 2 – Hitler's rise to power

The moderate political parties would not work together, although together they had more support than the Nazis. The depression of 1929 created poverty and unemployment, which made people angry with the Weimar government. People lost confidence in the democratic system and turned towards the extremist political parties such as the Communists and Nazis during the depression. Goebbels' propaganda campaign was very effective and it won support for the Nazis. The Nazis targeted specific groups of society with different slogans and policies to win their support. Hitler was given power in a seedy political deal by Hindenburg and Papen who foolishly thought they could control him. German people were still angry about the Treaty of Versailles and supported Hitler because he promised to overturn it. In fear of the Communists Industrialists gave Hitler money and support. We must not forget that Hitler was a great speaker, with the power to make people support him. The Nazi storm troopers attacked Hitler's opponents and their rallies putting people off supporting or attending.

Summarising – Part 3

Hitler's rise to power

- Moderate political parties would not work together,
- The depression of 1929 - Anger with Weimar government.
- Goebbels' propaganda campaign
- Given power - Hindenburg and Papen
- Angry about the Treaty of Versailles
- Industrialists
- Great speaker
- The Nazi storm troopers

Summarising – Don't stop there!

- But what can you do now?
Well....
- You could *look cover write check*
- You could draw a picture which represents each word/phrase
- You can create a memorable phrase or sentence from the first letter of each word (Mnemonic)
- Make test cards and test yourself/be tested



- VIEW
- V – Versailles
- I – Individual personality of Hitler
- E – Economic collapse
- W – Weimar

Mnemonics

Musical Mnemonics

- ABCDEFG.....
- *The foot bone's connected to the leg bone. The leg bone's connected to the knee bone. The knee bone's connected to the thigh bone....*

Acrostic Mnemonics

- Simply list the words/phrases you need to learn and then take the first letter of each and think of alternative words that begin with these letters. Take time to make sentences you won't forget, make them funny, silly and imaginative.

Mnemonics

Biology

Kings Prefer Cheese Over Fried Green Spinach

kingdom, phylum, class, order, family, genus, species – Classification of living things

Maths

Some Old Hags Can't Always Hide Their Old Age

SOHCAHTOA – Trigonometry

Chemistry

Please Send Cats, Monkeys And Zebras In Large Cages Make Sure Padlocked

Potassium Sodium Calcium Magnesium Aluminium Zinc Iron Lead Copper Mercury Silver Platinum

Reactivity of Metals

Art

Spaceships Fly Through Space Looking Very Cool

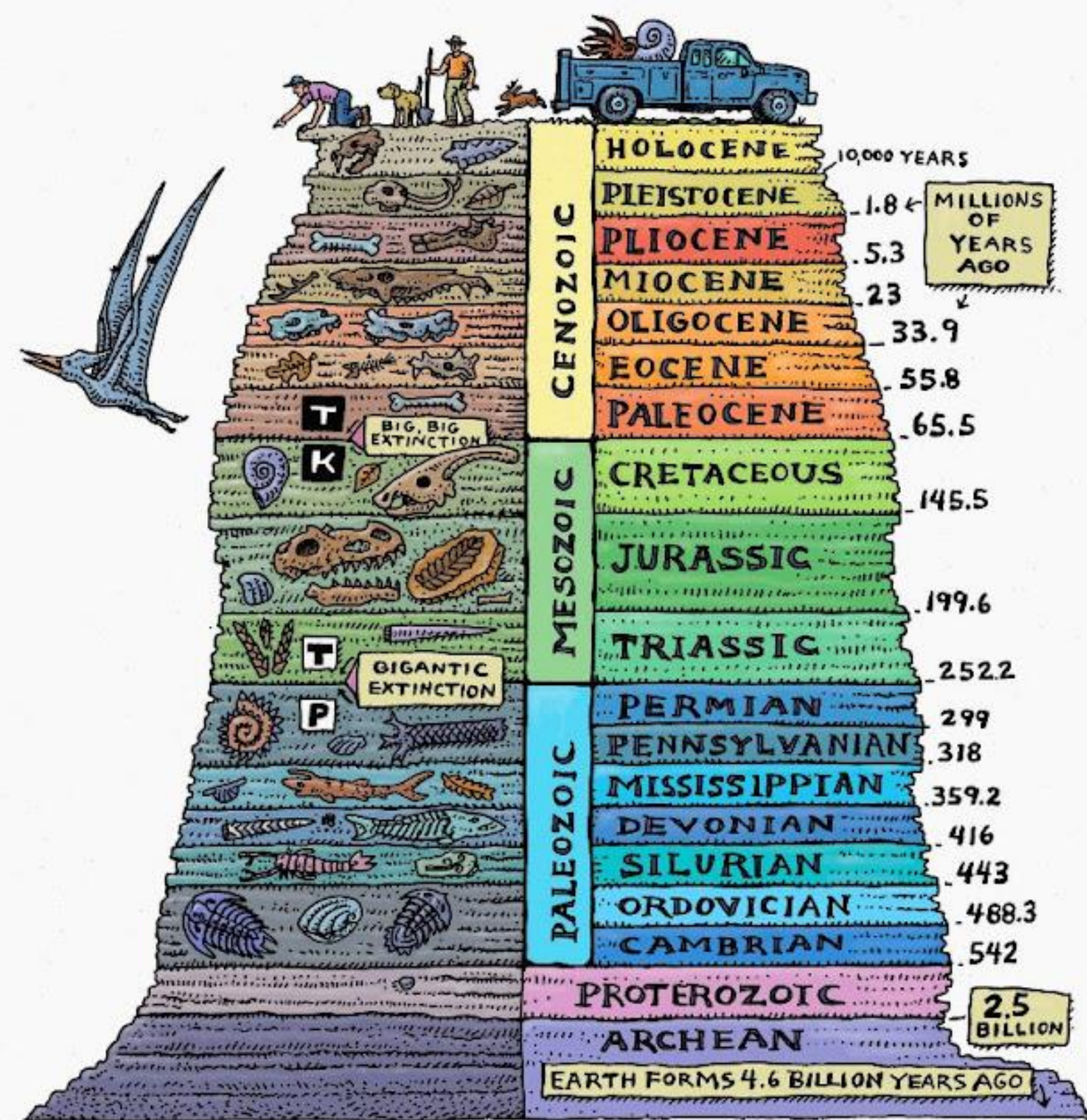
The Fat Cat Sings Songs Very Loudly

Space, Form, Texture, Shape, Line, Value, Color – The Elements of Art

Parent Task number 2!

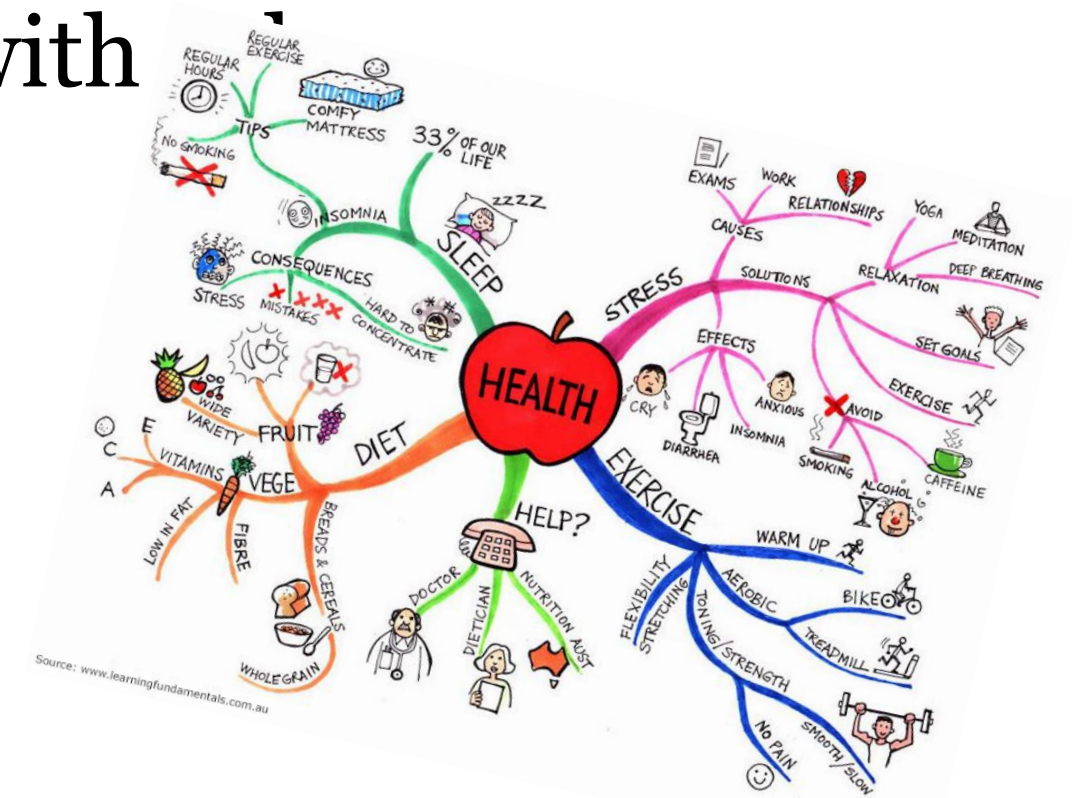
In your groups try and think up a memorable mnemonic for one of the following geological time periods;

- Cenozoic
- Mesozoic
- Paleozoic

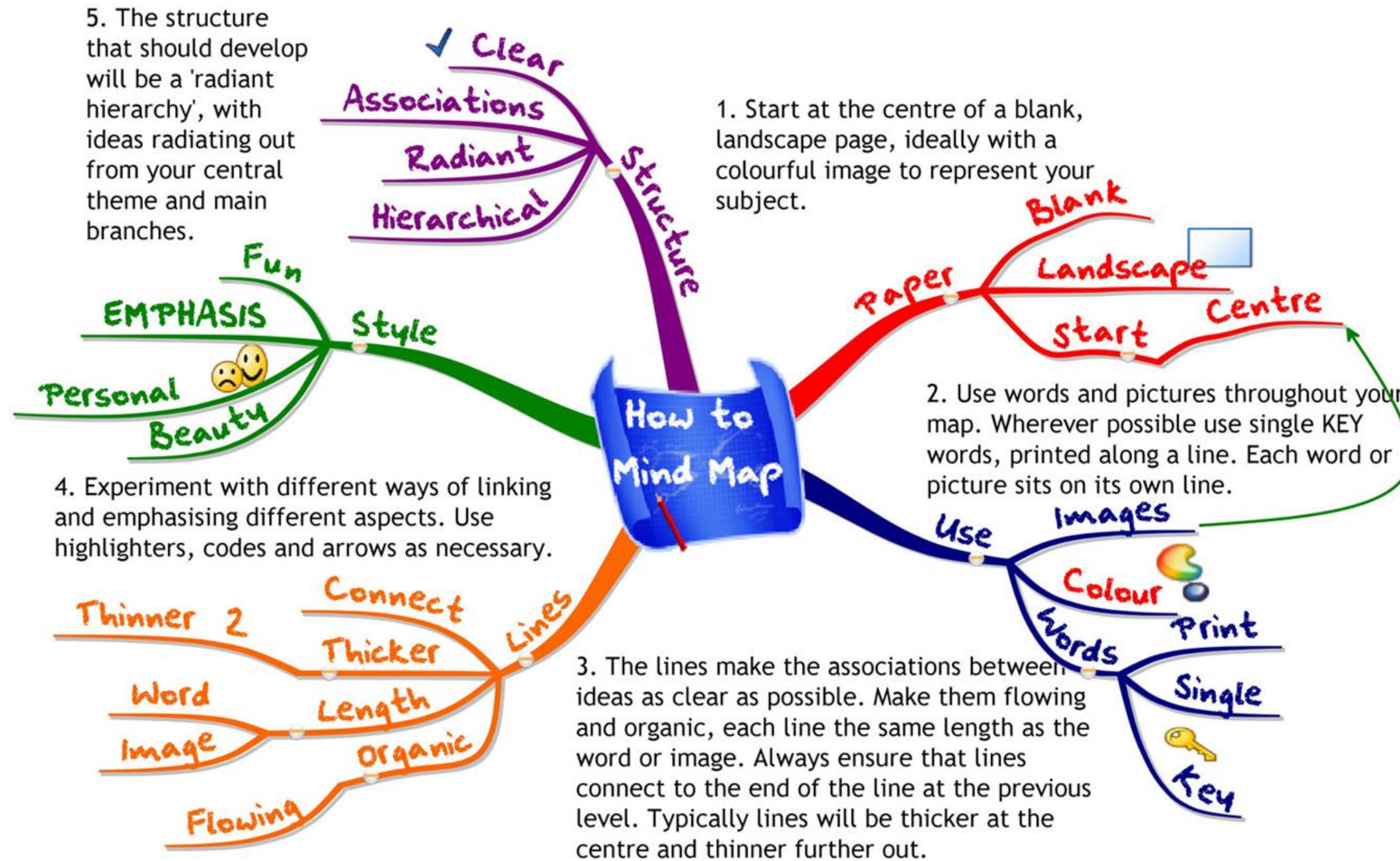


Mindmaps – What are they?

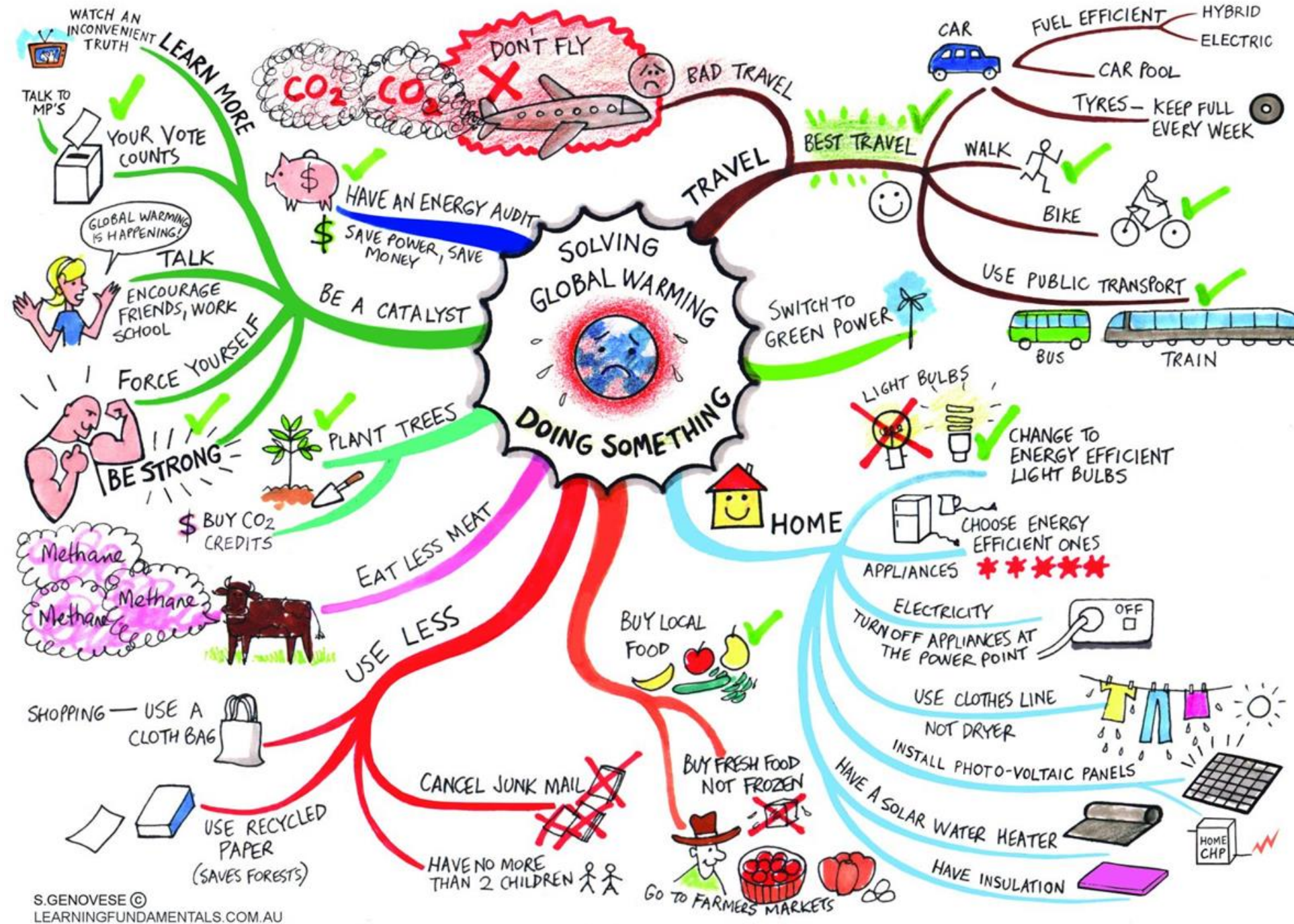
- The process starts around a central idea or picture
- Key themes are established through branches with branches
- Key terminology is used
- Single words or phrases
- Themes are connected through colours
- Images reinforce meaning
- It allows you to freely associate and link ideas



How to mindmap effectively

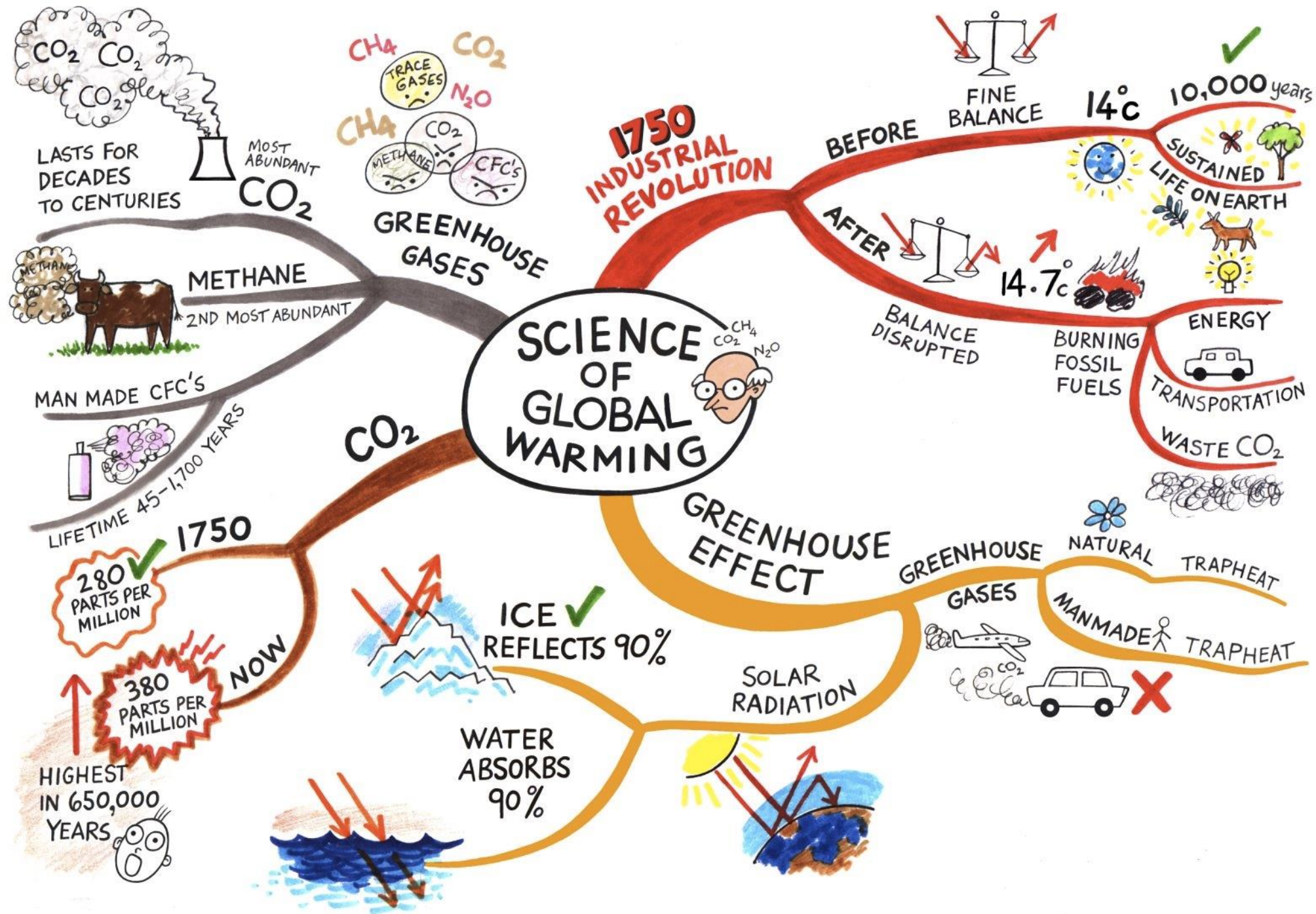


Mindmaps – Geography example



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Mindmaps – simpler example



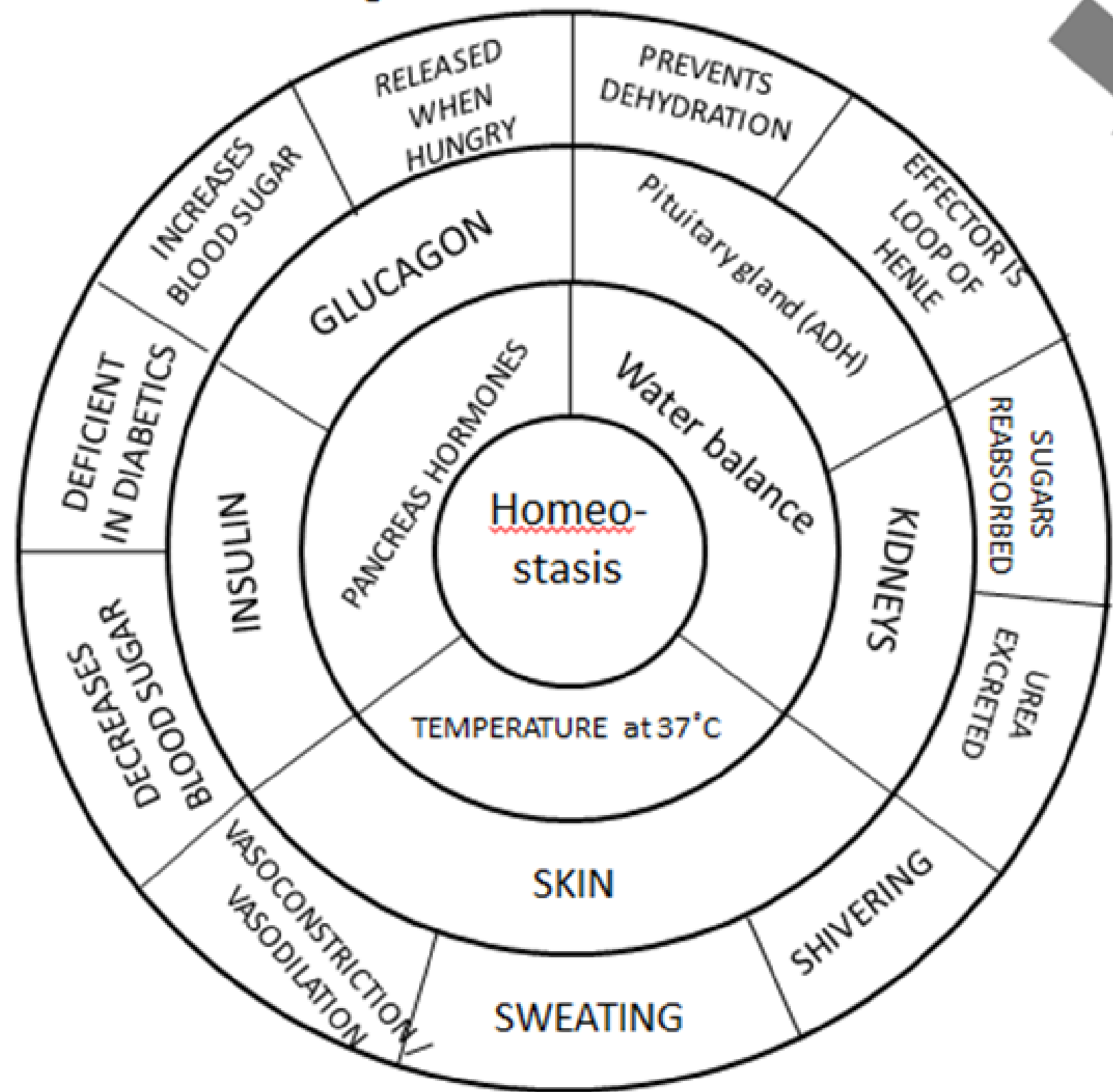
Why Mindmap?

- More brain friendly
- The brain is capable of processing hundreds of images a second
- The organisation reflects how the brain remembers, linking facts/memories
- Easy to review
- The process of creating a mind map deepens learning



Mandalas

To create a Mandala write the main topic in the centre circle, draw a circle around this and divide it into sub topics. Another circle is created round this with the additional details written in these boxes. As you can add as many 'layers' as you need this can be a very effective revision tool.



Poster Power

- Take a topic and turn it into a poster
- Use lots of illustrations and colour
- Mindmaps, flow charts, diagrams and graphs are all useful to include on posters

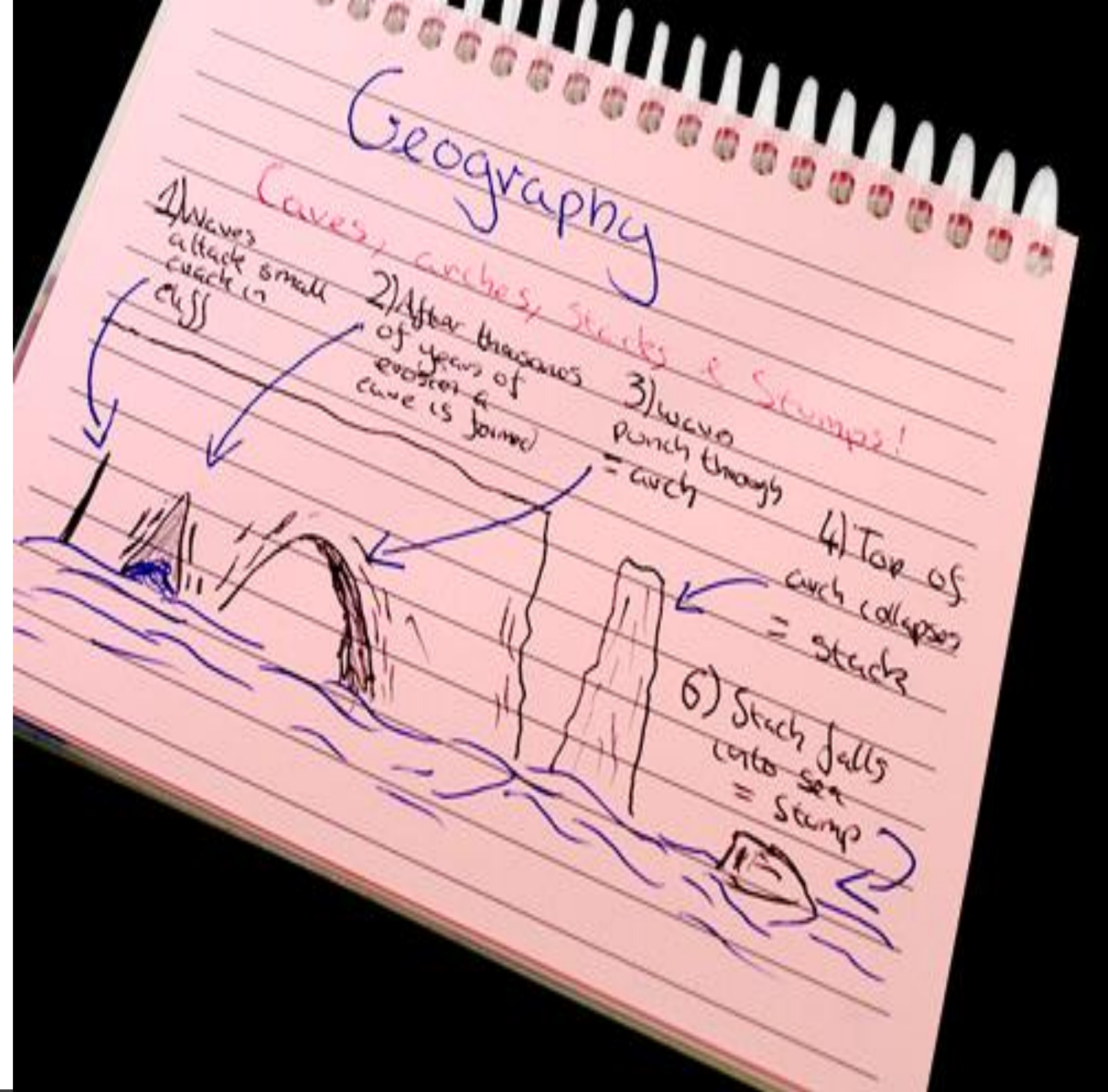


Flash Cards

- Instead of writing your notes on paper create sets of 'flash cards' for each topic
- Use the summarise technique
- Add pictures and definitions
- Highlight key words or underline

Using flash cards effectively

- Test yourself
- Look, say, cover, write, check
- Match up games
- parents/siblings can test you



Revision – key things to remember

1. Make a revision timetable
2. Effective Revision is an ongoing technique, they will need to revise each topic a few times
3. Help them summarise information to make this possible
4. Ensure they have breaks and get away from the desk and outside when possible
5. Create a good revision environment
6. Rest and relax too, this is important. If you think your daughter is revising too much talk to them
7. Good nutrition and exercise will help them focus on their revision and help their brain work at its most effective
8. Help them avoid too much sugar and caffeine. If they think they need this to ‘keep going’ what they really need is a break and some rest!