Consolidating Knowledge
Strategies to Embed Knowledge into your Long Term Memory
To help secure knowledge and prepare for exams........

- You MUST transform the information in some way
- You MUST practise key skills
- You MUST regularly revisit these ideas and the content you are learning

Transforming information

- Circle maps
- Bubble maps
- Double bubble maps
- Flow map
- Reduce information
- Prioritise information
- Flash cards

Practising

- Exam questions
- Online tests / APPS
- Recording your own podcast
- Teach someone else
- Post-it notes
- Look / Cover / Reproduce

PIXL LOGIN
BG3067 =Vital57ILP

EBHS Consolidation of Knowledge
Circle Maps

This is used to;

- Collect ideas quickly
- Unravel the brain (useful in an exam if your mind goes blank)
- Break down a really big topic

How do I use it?

- Put a key word/topic/picture in the middle
- In the large circle write or draw as much information as you can.

Going further – Transform the circle map in another revision session and prioritise the characters in order of importance

EBHS Consolidation of Knowledge
Bubble Maps

This is used to:

- Describe the qualities of something using adjectives and adjectival phrases
- It helps to identify the qualities or characteristics of something
- Really useful for character traits or properties of something

How do I use it?

- In the centre circle write the thing or word you want to describe
- In the outer circles write adjectives to describe
- If you get stuck in an exam on a longer answer each of the bubbles can lead you towards a sentence

Example

```
Alkali metals

soft
reactivity increases down the group
low density
very reactive
one outer electron
relatively low melting points
conduct heat and electricity
```
Bubble Map

- Choose a main character from your circle map and write it in the middle
- Write as many descriptions about the character as you can
- Add more bubbles if you need them

Going further – take two bubble maps and transform them into a double bubble map

EBHS Consolidation of Knowledge
Double Bubble Map

This is used to:

- Compare and contrast two things
- It is a similar concept to a Venn diagram
- It helps you to quickly see similarities and differences

How do I use it?

- Draw two bubbles and put the words or characters you wish to compare and contrast in the middle
- The bubbles that connects down the centre show the similarities between the two
- The bubbles on the outside show the differences

Example
Double Bubble Map
Make a map to compare two characters from your English texts

Going further – in a different revision session use the information in the map to write an exam question and mark scheme

EBHS Consolidation of Knowledge
Flow Map

This is used to;

- Identify the stages or order of an event or task

How do I use it?

- Write in the boxes the order of an event
- Ensure you draw arrows so you know which way the diagram flows

Example

1. Solving simultaneous equations
2. Multiply one equation so that the coefficient in front of x or y is the same
3. Solve the remaining linear equation
4. Eliminate one of the unknowns by adding or subtracting one equation to/from another
5. Use this answer to find the remaining unknown
Flow Map
Make a flow map about a process in Geography, or a sequence of events in History, or how to complete a practical in Science.

Going further – revisit your flow map in a look / cover / reproduce exercise to test your memory

EBHS Consolidation of Knowledge
Reduce Information

This is used to:

- Make notes from a text book or revision guide
- Select key information and eliminate unnecessary details

How do I use it?

- Select key words which would make good sub-headings
- Limit yourself to 5 bullet points per subheading
- Set yourself a challenging word count that you can’t go above

Example – Atomic Structure

<table>
<thead>
<tr>
<th>Particles in the atom</th>
<th>Electronic configuration</th>
<th>Links to groups and periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive protons, negative electrons, neutral neutrons</td>
<td>Atomic (bottom) number tells you how many electrons each atom has</td>
<td>The group number equals the number of electrons in the outer shell</td>
</tr>
<tr>
<td>Protons and neutron have a mass of 1 and are in the nucleus</td>
<td>2,8,18 rule</td>
<td>The period is the same as the number of electron shells</td>
</tr>
<tr>
<td></td>
<td>Fill the first shell first and then work outwards</td>
<td>Example; chlorine is in the third period and group 7 (2,8,7)</td>
</tr>
<tr>
<td></td>
<td>Example; potassium has 19 electrons arranged as 2,8,8,1</td>
<td></td>
</tr>
</tbody>
</table>

Task

Think of your favourite film and describe it in no more than 20 words (no names of characters allowed). Can your neighbour work out the film title?
Prioritise

This is used to;

- Place information in priority order
- There doesn’t need to be an absolute correct answer; the process and the justifications are what help you to learn the facts

How do I use it?

- Take a bubble map or circle map and decide on a priority of importance
- Take a sequence of events from a flow map and decide which is the most important

Task

Which of these words are most important when describing Macbeth?
Which are the least important?
Why?

witches  Macbeth  Banquo  ironic
atmosphere  superstitious  protagonist  hero
bravery  valiant  loyalty  traitor
usurp  heinous  manipulate  blood
Flash Cards
This is used to;

- Transform notes from your books or revision guides

How do I use them?

- Keep them simple with a key word or phrase on one side and more detailed notes on the other
- When you get them out to revise from do something with them – DON’T just read them
  - Highlight key words
  - Add definitions of words
  - Look / cover / reproduce the information
  - Verbalise the information on to a podcast
  - Ask someone to test you

Example

First time – make the card

| ANTIBIOTICS | Penicillin was discovered by Alexander Fleming from the *Penicillium* mould. Antibiotics and other medicines are used to treat disease. Antibiotics, such as penicillin, are medicines that help to cure bacterial disease by killing infective bacteria inside the body. They work by interfering with the metabolic pathways of the bacteria – for example the processes that allow bacteria to form cell walls. It is important that specific bacteria should be treated by specific antibiotics. The use of antibiotics has greatly reduced deaths from infectious bacterial diseases. However, the emergence of strains resistant to antibiotics is of great concern. Antibiotics cannot kill viral pathogens. It is difficult to develop drugs that kill viruses without also damaging the body’s tissues because viruses invade the cells of our body |

Second time – highlight key word / phrases

| ANTIBIOTICS | Penicillin was discovered by Alexander Fleming from the *Penicillium* mould. Antibiotics and other medicines are used to treat disease. Antibiotics, such as penicillin, are medicines that help to cure bacterial disease by killing infective bacteria inside the body. They work by interfering with the metabolic pathways of the bacteria – for example the processes that allow bacteria to form cell walls. It is important that specific bacteria should be treated by specific antibiotics. The use of antibiotics has greatly reduced deaths from infectious bacterial diseases. However, the emergence of strains resistant to antibiotics is of great concern. Antibiotics cannot kill viral pathogens. It is difficult to develop drugs that kill viruses without also damaging the body’s tissues because viruses invade the cells of our body |

Third time – you could write some questions on the front of the card

Fourth time – get someone to test you or write the answers to the questions yourself and check your answers
Post-it Notes
This is used to;

- Get one key fact into your memory that you are struggling to remember like a key quote, a maths formula or science equation

How do I use it?

- Copy out the same piece of information on to 5 post-it notes
- Stick these in places you see every day (the mirror, the fridge, the toilet etc.)
- Once you have learnt the fact replace with 5 different post-its

Podcasts
This is used to;

- Listening to ideas you have recorded
- Listening to your French / German oral

How do I use it?

- Think about this as marginal gains and use it when you can’t sit with pen and paper easily. Examples would be on a long car journey, bus into school, when your Mum makes you go to the supermarket!
- Use it as another way to transform information – record the contents of a flash card for example

Going further – revisit your podcast by trying to write down everything you have recorded on a topic and then playing it back to see what you missed
Consolidation Time

No mobile phone unless you’re recording a podcast.

No internet unless you’re using an APP or a test site like Diagnostic Maths

No music – scientifically proven to interfere with learning (unless you choose Mozart or something similar)

20 minutes at a time (you can survive 20 minutes without your phone) – set a timer

If you don’t completely concentrate on tasks for 20 minutes you are kidding yourself about how much you’re doing.

Consolidation over time

Monday

<table>
<thead>
<tr>
<th>20 minutes on English</th>
<th>20 minutes on maths</th>
<th>20 minutes on biology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circle map</td>
<td>10 minutes on PiXL</td>
<td>Make a flow map for vaccination process</td>
</tr>
<tr>
<td>Bubble map</td>
<td>Make 3 “how to” flash cards for algebra</td>
<td></td>
</tr>
<tr>
<td>Double bubble compare</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tuesday

<table>
<thead>
<tr>
<th>20 minutes on French</th>
<th>20 minutes on maths</th>
<th>20 minutes on English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write out a script for my oral</td>
<td>20 minutes on diagnostic maths</td>
<td>Try to draw out yesterday’s double bubble from memory</td>
</tr>
<tr>
<td>Make 3 “how to” flash cards for algebra</td>
<td></td>
<td>Add in some key quotes</td>
</tr>
</tbody>
</table>

Wednesday

<table>
<thead>
<tr>
<th>20 minutes on geography</th>
<th>20 minutes on business</th>
<th>20 minutes on French</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce a topic from the revision guide – 5 sections and 5 bullet points for each</td>
<td>Make 5 flash cards from the revision guide</td>
<td>Record the podcast. Listen for mistakes</td>
</tr>
<tr>
<td>Make a flow map for vaccination process</td>
<td></td>
<td>Write out 5 post-its with French vocab</td>
</tr>
</tbody>
</table>

Thursday

<table>
<thead>
<tr>
<th>20 minutes on biology</th>
<th>20 minutes on English</th>
<th>20 minutes on geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make a podcast about vaccinations</td>
<td>Make up a compare question and use the bubble map to write a mark scheme</td>
<td>Highlight the key words in the reduced text</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Make flash cards of the words with definitions</td>
</tr>
</tbody>
</table>

And so it continues ……..

Look to see how the activities above have you building upon, revisiting and transforming the same information. You should try these approaches as you go through your GCSE courses.

You will need to increase the number of tasks you complete as you approach mocks and the real exams.
The worst you can do ......

Sit reading a revision guide while the T.V. is on or listening to music.
Sit looking at BBC bitesize but using social media in the background or on your phone.

Don’t let it be you falling at the first hurdle