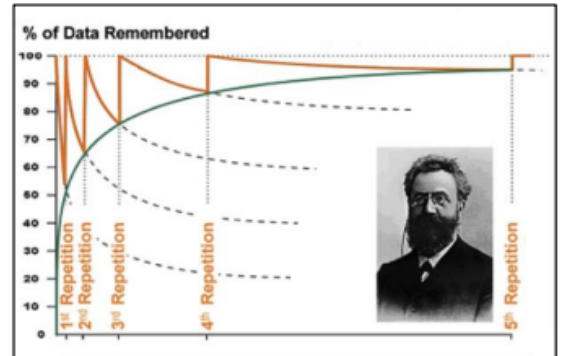


Retrieval is trying to remember information you have previously learned, so you can access it easily at a later date. When we are asked a question, our brain makes connections to other things we know. By repeating the question regularly, those connections are strengthened, and eventually the information transfers to our long term memory making sure that we are successful in the GCSE exams and in study post 16.



### What does the research say?

This is one of the most extensively researched areas of learning. **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 at this diagram – those students who self-tested 3 times before the exam were far more successful than those who just re-read the text.

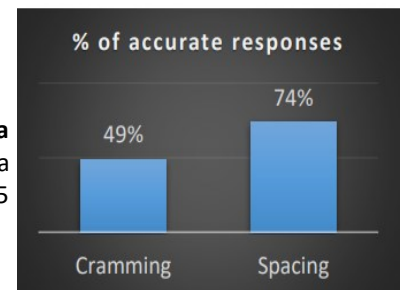


### How can you make it even more effective?

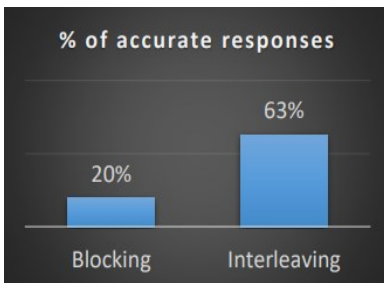
#### Spacing



**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 History 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.

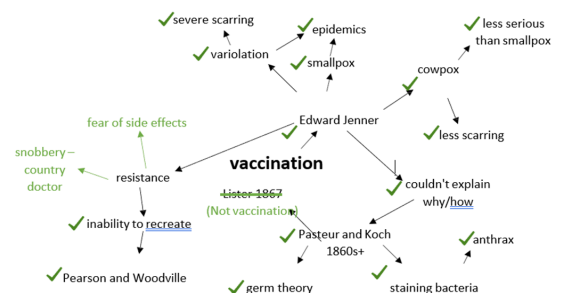


### Effective Retrieval Strategies

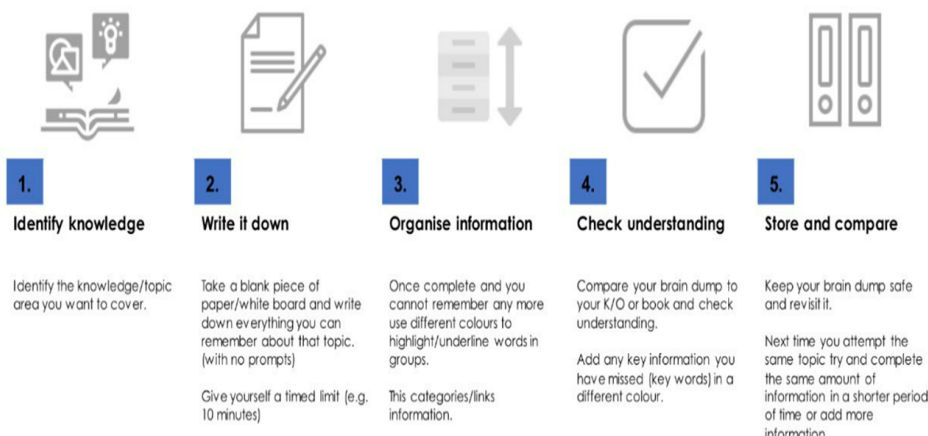


#### 1. Brain Dump

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.



# Summary: Brain dumps



Brain dumps are a way of getting information out of your brain.

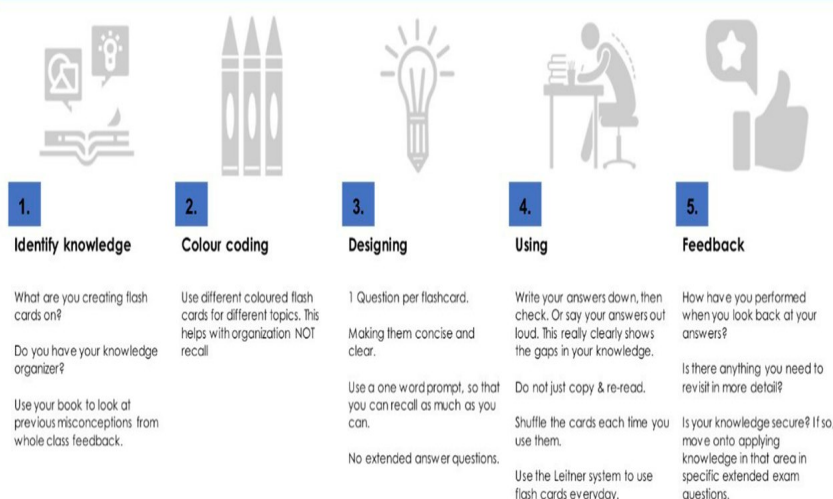


## 2. Flash Cards

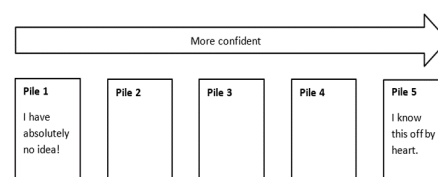
Write flashcards for each topic, in all subjects, then mix them up for the most effective revision. Keep your flashcards simple – one question, one answer per card.

|  |  |
|--|--|
| osmosis  | 1861   |
| Net movement of water from a high concentration to low concentration across a partially permeable membrane | Pasteur published his paper about germ theory. |

# Summary: How to use flash cards



Avoid answering the questions in your head: research shows that when you read a question and answer it in your head, you aren't actually testing your knowledge effectively. Say the answer out loud or write it down before checking it against the card, so you are truly testing if you can explain the answer properly



As you test yourself on the different piles, move the cards into different piles as you become more confident.





### 3. 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.

#### Public Health in the Industrial Revolution

##### Questions:

1. Give two reasons why people migrated to urban areas during the Industrial Revolution.
2. Why did increased population density increase the risk of epidemics in urban areas?
3. Give an example which shows that many public health systems in urban areas were overwhelmed during the Industrial Revolution.
4. Why did many people living in damp and overcrowded housing increase the risk of epidemics during the Industrial Revolution?
5. Why didn't the government in the early Industrial Revolution take steps to improve public health services and living conditions?
6. Give an example of a disease, caused by poor public health, of which there were epidemics during the Industrial Revolution.

##### Answers:

1. Improvements in agricultural technology as the invention of the factory. ✓
2. Diseases could easily spread from person to person. ✓
3. Multiple families would share one overflowing cesspit. ✓
4. People had weak immune systems which made them less able to fight off diseases. ✓
5. The government had a laissez-faire attitude to public health, meaning that they did not think that improving public health should be their responsibility. ✓
6. The plague X Cholera or typhus (the plague was in the Middle Ages and the Renaissance)

5/6 (83%)

## Summary: Self Quizzing



1.

#### Identify knowledge

Identify knowledge/content you wish to cover.



2.

#### Review and create

Spend around 5-10 minutes reviewing content (knowledge organisers/class notes/text book)

Create x10 questions on the content (If your teacher has not provided you with questions)



3.

#### Cover and answer

Cover up your knowledge and answer the questions from memory.

Take your time and write possible answer in full sentences.



4.

#### Self mark & reflect

Go back to the content and self mark your answers in green pen.



5.

#### Next time

Revisit the areas where there were gaps in knowledge, and include these same questions next time.

Ensure that you complete all subjects and all topics – not just the subjects you enjoy the most of find easiest.  
Practice makes perfect!



### 4. Mind Maps

Mind maps provide a structured way to capture and organise ideas and information. They help users to understand concepts by breaking them down into their component parts. The technique is used to develop new ideas, or to break down and better understand existing information.

## Summary: How to create a mind map



1.

#### Identify knowledge

Select a topic you wish to revise. Have your class notes/knowledge organisers ready.



2.

#### Identify sub topics

Place the main topic in the centre of your page and identify sub topics that will branch off.



3.

#### Branch off

Branch off your sub topics with further detail.  
Try not to fill the page with too much writing.



4.

#### Use images & colour

Use images and colour to help topics stick into your memory.

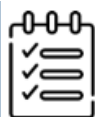


5.

#### Put it somewhere visible

Place completed mind maps in places where you can see them frequently.

Avoid using too much information: mind maps are designed to summarise key information and connect areas of a topic/subject. If you overcrowd the page, you lose the point of the mind map and will find it harder to visualise the information when trying to recall it



## **5 Step Study Plan**

### **1. 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.



### **2. 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.



### **3. Use Effective Study Strategies**

Test yourself, using retrieval strategies.



### **4. 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.



### **5. 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 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.



### **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?



### **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