



BEECHEN CLIFF

# Revising Effectively

Thursday 15th October 2026

Who are we and why are we here?

**Ms Blair**

Assistant Head Teacher  
SENDCo

**Ms Bala**

Associate Assistant Head,  
Teaching and Learning  
Head of Science



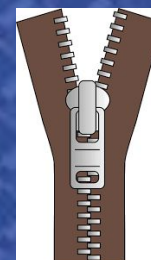
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# Welcome

Let's play a game.

Have a look at the 15 items on your 'tray'.  
You have 2 minutes to remember as many as you can.

A digital timer showing 2:00 in white text on a black background, with a colorful, abstract, pixelated border.



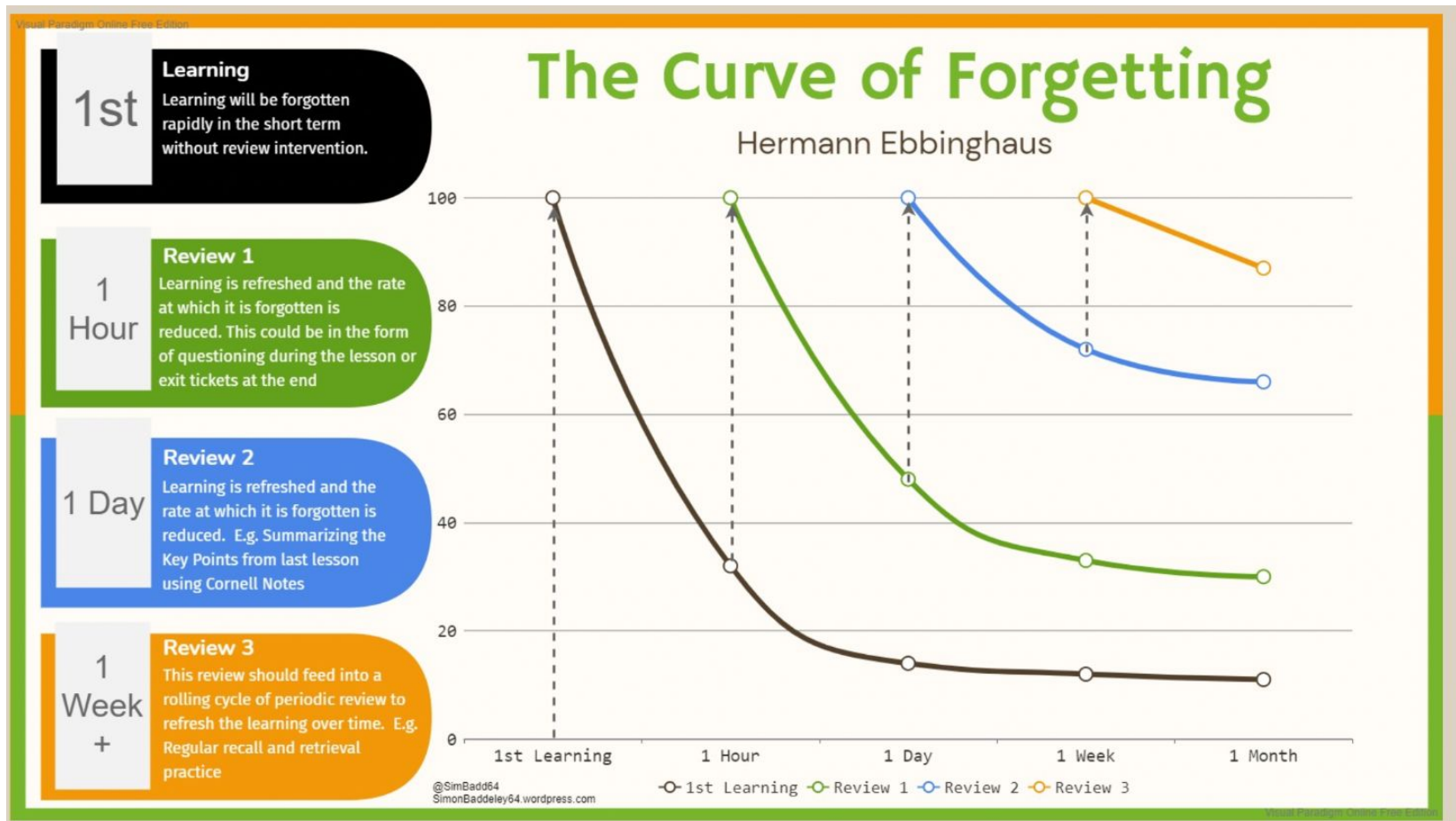


How many can you remember?

Using your whiteboard, list as many as you can remember.



# The Forgetting Curve





# The Forgetting Curve

**Commentary:** We've just tried to remember 15 items. Within a month we'll have forgotten at least 90% of what we've just seen (holding just 10%). This is normal, and it has a lot to do with how human memory works. The forgetting curve, developed by German psychologist Hermann Ebbinghaus in the 1880s, illustrates how quickly we can lose access to newly learned information when we don't revisit it. If we revisit it at the end of this session and make links (create a story) we will have around 30% recall. Come back to it at the weekend, write the story out with some dual coding, we'll hold onto 70%. Revisit again next week, we'll retain around 90%. The exact rate varies depending on the learner, the material, prior knowledge, sleep and how effectively the information was learned. There is no single percentage of knowledge that every student will forget after a set number of hours.

The key message for parents is this: forgetting is a normal part of learning, not necessarily evidence that your child hasn't worked hard enough. What is important, is how we help children to hold information/store it in their long term memory.



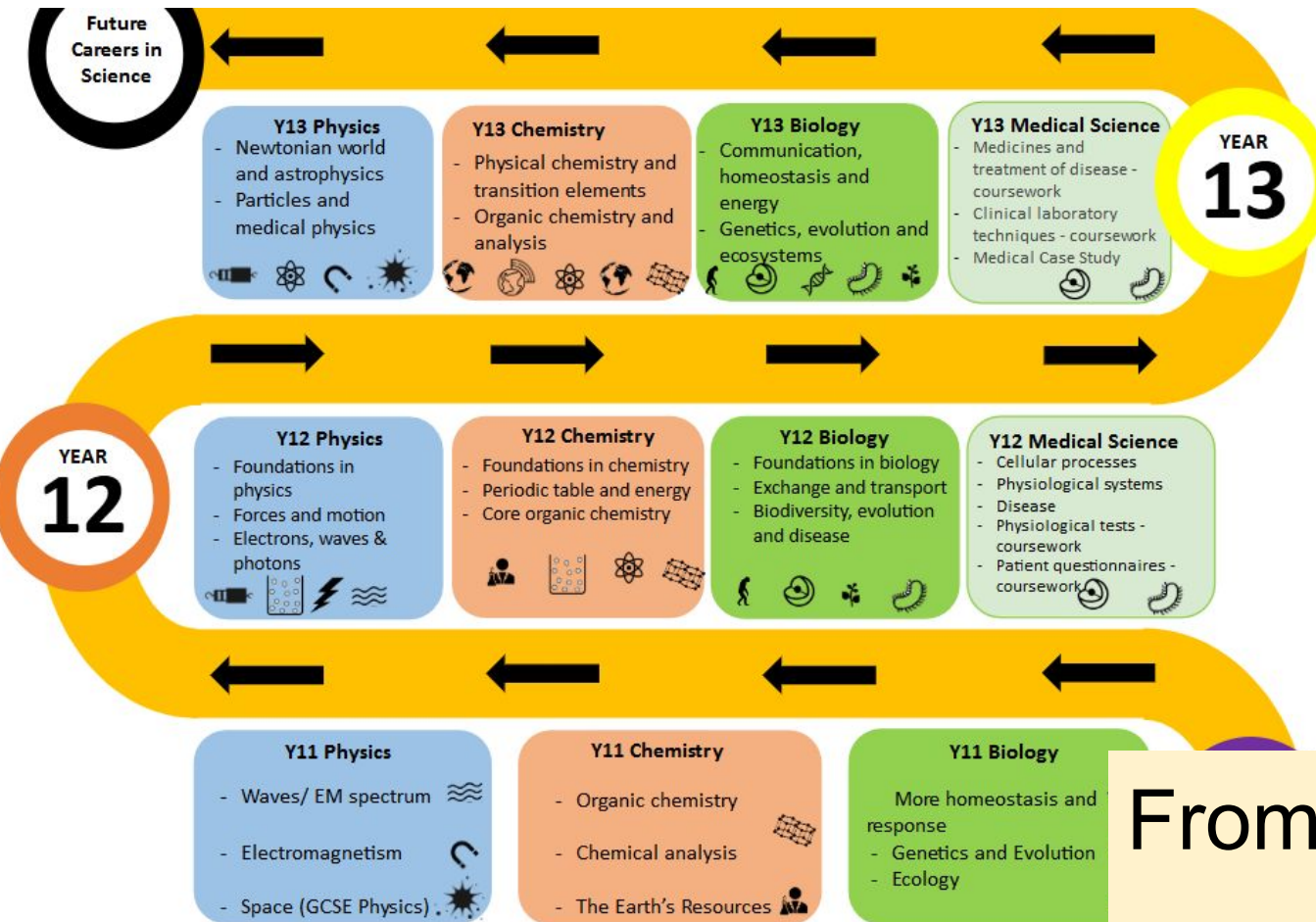


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Learning  
Journey -  
building on  
prior  
knowledge.

KS4 → KS5

From KS3- KS5





# Yr 7-13 Assessment and Learning Cycle

## Low stakes testing

- recall tasks at the start of each lesson
- Key HWs

Formalised end of unit tests

End of year exams

1. Do Now

2. Engage

3. Learn

4. Build

5. Apply

6. Review

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### Welcome

Sit in agreed seating plan

Check your uniform is correct

Get pencil case with all equipment out on desk

Book on desk

Put your bags under the desk

Write the title, C/W and date and underline using a ruler

Begin starter task whilst register is being taken

### Title: Treating kidney failure

#### Recall quiz:

1. What type of receptors detect water levels in the blood?
2. Which hormone regulates water levels?
3. Where does deamination take place? What does it involve?
4. Name 1 molecule that is reabsorbed back into the blood from the filtrate in the kidney.
5. What response does the hormone in q.2 bring about?

Challenge - explain the process of negative feedback with reference to water regulation.

Aspiration

Compassion

Independence

Respect



## Assessment Y10 into Y11



- End of topic tests.
- End of year exams → determines setting in Y11.

*w/c 21st June 2027*

|                          |   |           |   |   |   |   |  |
|--------------------------|---|-----------|---|---|---|---|--|
| Name:                    |   | Class     |   |   |   |   |  |
| Target Grade:            |   | Score /49 |   |   |   |   |  |
| Grade achieved (Circle): | 4 | 5         | 6 | 7 | 8 | 9 |  |
| Working towards grade:   | 4 | 5         | 6 | 7 | 8 | 9 |  |

| Q | Statement                                                                                                                                                                                                                                                                                                  | Marks | EBI | WWW |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|
| 1 | Resistance of a wire<br>Next: From this experiment identify the independent, dependent and control variables. Suggest some sensible values for the control variables.                                                                                                                                      | /7    |     |     |
| 2 | The national grid<br>Next: create a flow diagram to show the stages of the national grid. Your flow diagram should highlight how the national grid is designed to be as efficient as possible.                                                                                                             | /6    |     |     |
| 3 | Resistance and sensors<br>Next: Write down what LDR stands for. Draw a circuit diagram to show how you can measure the voltage and current through the component at different light intensities.                                                                                                           | /10   |     |     |
| 4 | Resistance of a wire<br>Next: Try writing this method again in a series of steps. Be sure to include the equipment you are using and the measurements you are taking from this equipment. It needs to be clear enough that another person can follow the method who has never done this experiment before. | /10   |     |     |
| 5 | Resistance and sensors<br>Next: Explain how resistance affects current in a circuit. Give the equation for Ohm's law.                                                                                                                                                                                      | /9    |     |     |



# Assessment Y12 into Y13

*Two assessments each term* (one from each teacher).

Mock exams in Term 6 → helps to inform UCAS predicted grades.

w/c 7 June 2027

## PLC Module 4.2.2 Classification and evolution.

| Can you demonstrate and apply your knowledge and understanding of ...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 😊 | ☹ |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| 4.2.2 Classification and evolution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |   |
| (a) the biological classification of species To include the taxonomic hierarchy of kingdom, phylum, class, order, family, genus and species AND domain.                                                                                                                                                                                                                                                                                                                                                                                                 |   |   |
| (b) the binomial system of naming species and the advantage of such a system                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   |   |
| (c) (i) the features used to classify organisms into the five kingdoms: Prokaryotae, Protoctista, Fungi, Plantae, Animalia To include the use of similarities in observable features in original classification<br>(ii) the evidence that has led to new classification systems, such as the three domains of life, which clarifies relationships To include the more recent use of similarities in biological molecules and other genetic evidence AND details of the three domains and a comparison of the kingdom and domain classification systems. |   |   |
| (d) the relationship between classification and phylogeny(covered in outline only at AS level)                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |   |
| (e) the evidence for the theory of evolution by natural selection To include the contribution of Darwin and Wallace in formulating the theory of evolution by natural selection AND fossil, DNA (only genomic DNA at AS level) and molecular evidence.                                                                                                                                                                                                                                                                                                  |   |   |
| (f) the different types of variation To include intraspecific and interspecific variation AND the differences between continuous and discontinuous variation, using examples of a range of characteristics found in plants, animals and microorganisms AND both genetic and environmental causes of variation.                                                                                                                                                                                                                                          |   |   |
| (g) the different types of adaptations of organisms to their environment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   |   |



# Links to Neurodiversity

What is executive functioning?

Executive functioning is the set of processing skills that help us to plan and organise what we do across every day.

This all comes from our executive function skills. Our executive functioning skills significantly impact our learning skills, how we interact with others and how we regulate and control our thoughts.



# Links to Neurodiversity

**Commentary:** S''o, what do we mean by executive functioning?

Essentially, executive functioning is the set of skills our brains use to manage everyday life. I often think of it as the brain's management system. It helps us plan, organise, get started on tasks, manage our time, stay focused and monitor how we're doing.

These skills are particularly important for our young people in Years 10 to 13 because, as they move through GCSEs and into sixth form, the expectation is that they become increasingly independent learners.

They're expected to manage multiple subjects, remember deadlines, organise their notes, plan revision and prepare for exams, often with much less direct support than they had in earlier years.

But here's the important point: knowing what you need to do and being able to organise yourself to actually do it are two different things.

A student might understand that they need to revise Biology, complete an English essay and prepare for a Maths test. They may genuinely want to do all three, but struggle to decide where to start, estimate how long each task will take or keep themselves on track.

We also use executive functioning skills when interacting with others and managing our emotions. They help us pause before reacting, cope with frustration, adapt when plans change and think through problems.

These skills continue to develop throughout adolescence and into early adulthood. Young people vary in how easily they can use them, and some need more explicit support than others.

Now, these skills can be challenging for any teenager, particularly during exam season. But for some neurodivergent young people, differences in executive functioning can make everyday academic demands particularly difficult. Let's look at what that can actually look like."

So, when we think about our teenagers, it's helpful to look beyond whether they know what they should be doing and consider whether they have the skills, strategies and support to manage it independently."



# Executive Function & Neurodiversity

**Planning and time management**

'Time blindness'.

**Organisation**

Managing information and organising the information learnt in class can be challenging. Managing folders in Yr12 & 13.

**Starting/task initiation**

Difficulties getting started. Difficulties with sequential thinking.

**Self Monitoring**

This can be hindered if you are overloaded.

**Working Memory**

Overload leads to information loss.



## Executive Function & Neurodiversity

**Commentary:** “When we talk about executive functioning and neurodiversity, we’re recognising that young people’s brains can work in different ways. Neurodivergent students, including some young people with ADHD or autism, may experience differences in particular executive functioning skills. However, every young person is different, and these difficulties are not exclusive to neurodivergent students.

Let’s consider five areas that can affect learning.

**First,** planning and time management.

You may have heard the term ‘time blindness’. This describes difficulty sensing the passage of time, estimating how long something will take or recognising how close a deadline is until it suddenly feels urgent.

Think about a Year 12 student who has an essay due in two weeks. They know the deadline is approaching, but two weeks can feel like a long time. Then, suddenly, the deadline is tomorrow.

From the outside, it might look like poor planning or procrastination. For the student, it may be genuinely difficult to translate the idea of a future deadline into a plan of action today.

This is where visual calendars, interim deadlines and breaking larger assignments into smaller steps can help.

**Second,** organisation.

Organisation is not just about having a tidy bedroom or a neat folder. It’s also about managing information and knowing where to find what you need.

In Years 12 and 13, students may be managing notes across three or four subjects, each with different topics, teachers, assignments and assessment requirements.

Imagine a student who understands a topic in class but cannot find the relevant notes when they sit down to revise. They may have the knowledge, but accessing and organising it becomes an additional challenge.

Clear folder systems, consistent file names and a simple structure for organising digital and paper notes can reduce this burden.

**Third,** starting tasks, or task initiation.

This is the ability to move from knowing that something needs to be done to actually beginning it.

A student might sit at their desk for an hour, knowing they need to start an essay, but struggle to work out the first step. If the task feels large or complicated, they may find it particularly difficult to get going.



## Executive Function & Neurodiversity

### **Commentary continued:**

Sequential thinking can also play a part: working out what comes first, what comes next and how the individual steps fit together.

Rather than simply saying, 'You need to get on with it', we can help by making the first step very specific. For example: 'Open the document, read the question and write down three possible points.'

Sometimes, getting started is the hardest part.

### **Fourth, self-monitoring.**

Self-monitoring means noticing what we're doing, checking whether it's working and making adjustments when needed.

For example, a student might be revising for an hour but not realise that they have spent most of that time rereading familiar material rather than testing what they can remember.

When a student is overloaded, tired or managing too many demands at once, it can be harder to step back and assess how well things are going.

Simple check-ins can help: 'What have you completed? What still needs doing? Is your current approach helping?'

The aim is to develop independence, not to have a parent constantly checking every move.

### **Finally, working memory.**

Working memory is our ability to hold information in mind temporarily while we use it.

For example, a student might be listening to a teacher explain a process, trying to remember the first instruction, make a note of the next step and connect it to something they learned last week.

That's a lot to manage at once.

When the demands exceed what a student can comfortably manage, some information may be lost. This can happen even when the student is capable, interested and trying hard.

Written instructions, checklists, worked examples and breaking information into manageable chunks can reduce the amount they have to hold in mind at any one time.

So, across all five areas, the common theme is that a young person may understand the learning but struggle with the processes needed to manage it.

Our role is not to remove every challenge or do everything for them. It's to identify where the difficulty lies, put useful strategies in place and gradually help them become more independent."



## Working memory

For learning to occur, information must be processed in working memory for meaning before it is passed into long-term memory. Long-term memory is the unconscious component of our memory. If we have truly learnt something, it means we have stored it indefinitely in knowledge structures known as schemas in our long-term memory. Schemas are activated when learners deal with familiar information. When this trigger occurs, schemas are transferred from long-term memory to be consciously processed in working memory for a specific purpose.



## Working memory

### Commentary:

“The role of working memory in learning  
Working memory is the place where thinking takes place. It is where information is manipulated and prior knowledge is drawn upon to add to new knowledge. Like a short-term parking place for information, the working memory is needed to ‘park’ information, both new and existing, in order to work with it. What is more, it is essential that new knowledge is processed in working memory in order for it to be transferred to long-term memory.”



# So, how do we revise well?

First, you need know **what** to revise.

*(PLC, AOs/mark scheme. Test feedback. [MET LINK](#). Study Guides, Textbooks, Seneca, Cognito, past papers etc.)*

You need to consider **how** to divide your time.

*(A revision plan).*

Then, you need a suitable **place**.

Revise **effectively** by working in blocks (45 minutes) with breaks.



## Where to work?

Avoid bedrooms!

- Too many distractions.
- Feeling too relaxed.
- Can impact sleep.

Try 'body doubling'



Library -  
3:20-4:20

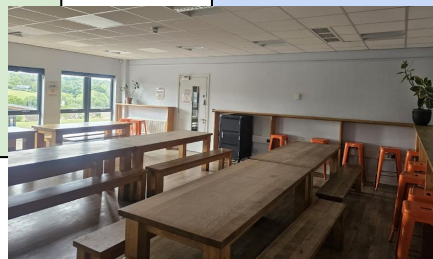
## Ready to work?

### Stationery:

Decent pen (varied colours)  
Highlighters  
Post-its

### Equipment:

Computer (not phone)  
Structured Notes Template  
Textbook/Study guide  
Weblinks



Sixth Form ISR -  
Until 17:15

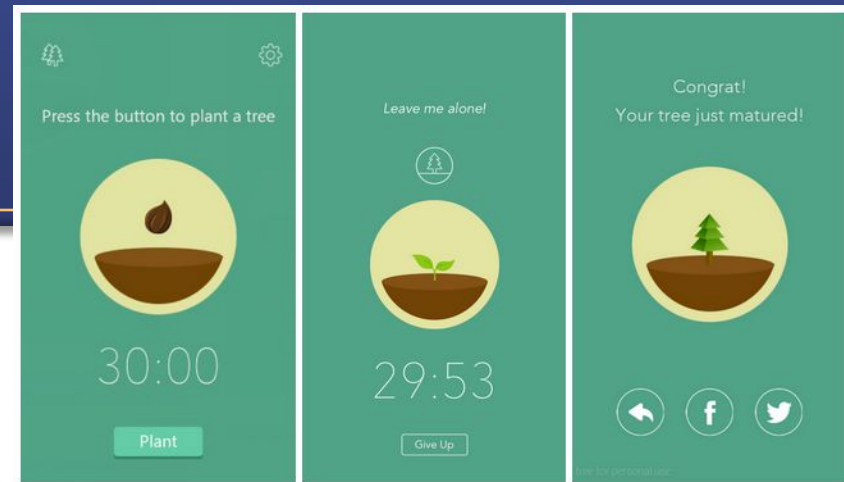


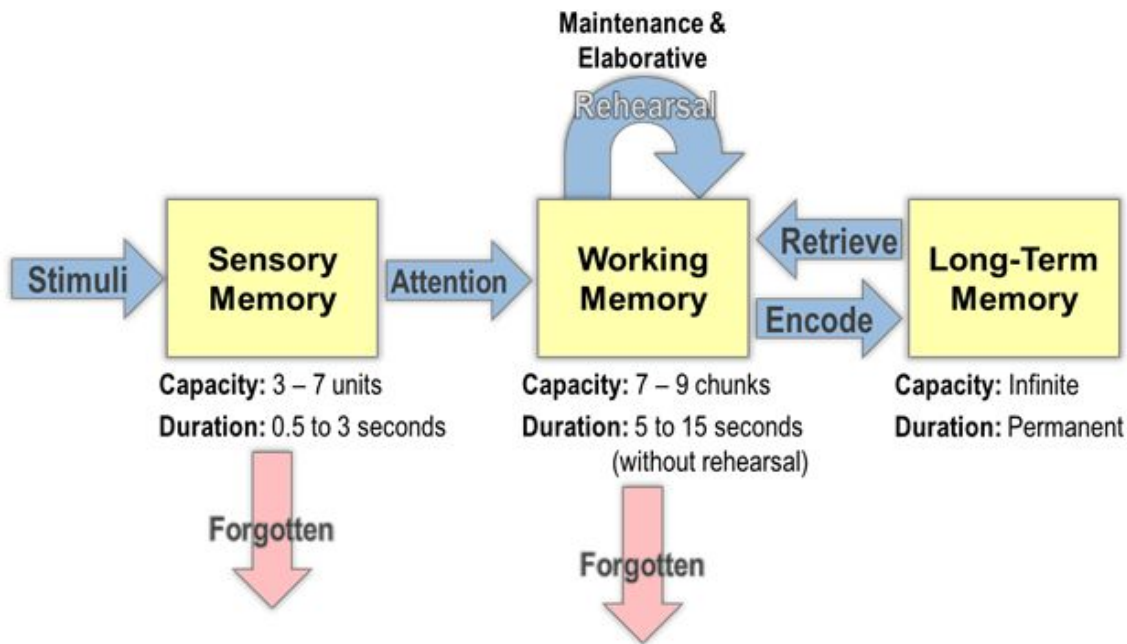
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So, how can you revise?

Before you revise:

1. **Breakfast/food** - it's estimated about 30% of students skip breakfast some or all of the time. This will negatively impact your ability to pay attention as it starves the brain of the energy it needs to strengthen and form new connections. The brain uses about 20% of your body's energy so not eating starves your brain literally.
2. Put your phone away/minimise distractions - research has shown **the mere sight of a phone reduces a person's ability to focus and pay attention** (apps like flora are designed to help you put away your phone for set periods of time). Remember **you can only encode what you pay attention to** - this should be your work not you phone when revising
3. Organisation - start early, spread it out, plan your time, include breaks. Make sure you know what you need to revise and break it into manageable chunks. Your brain can only focus for around 20 minutes effectively on one type of task - mix it up!

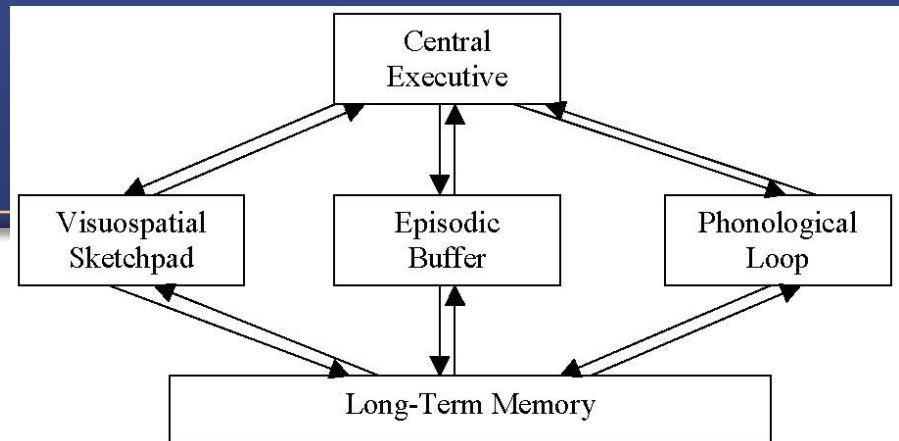




In order to find effective revision methods, it's important to understand how your brain processes information and forms new memories.

All external stimuli is taken in by your brain, but only information you pay **ATTENTION** to can hope to be stored. This information will be lost after about 30 seconds if you do not rehearse it, which in turn will encode it into your LTM which has potentially unlimited capacity and duration.

There are 2 types of rehearsal: **maintenance** is just reciting information over in your mind's ear whilst **elaborative** involves elaborating on the information (this is most effective for revision and encoding).

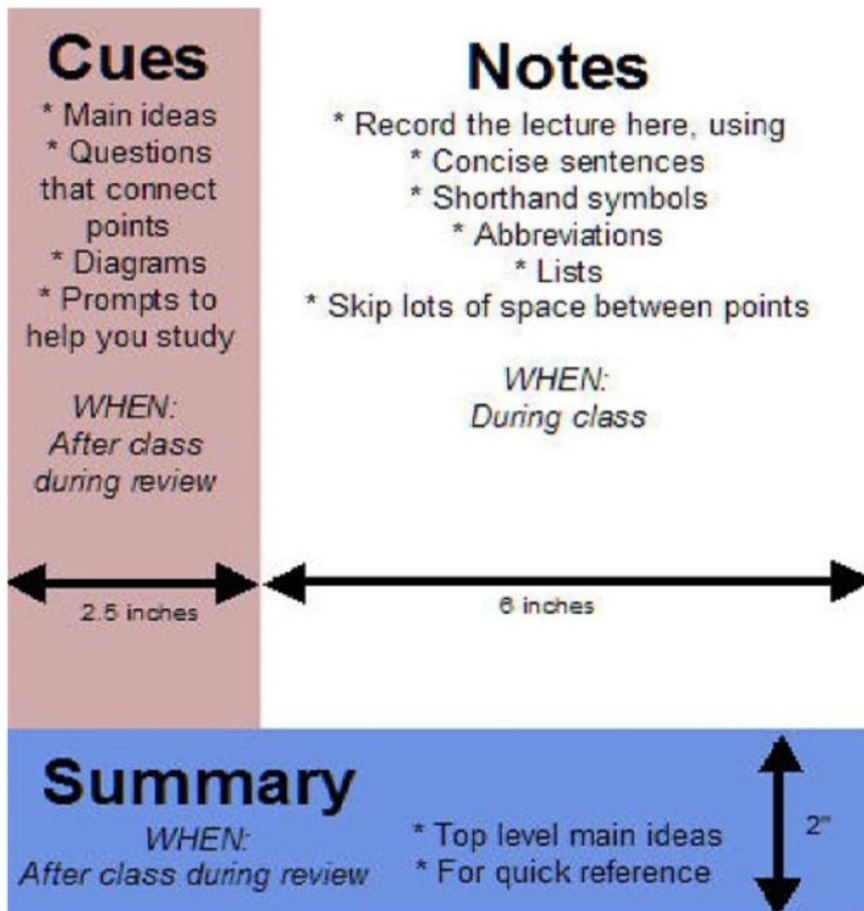


## During revision

1. **Active techniques** - flashcards, mind maps, test yourself and others.
  - a. Your brain cannot form new or stronger connections without active engagement
  - b. Test yourself
  - c. Teach someone else - The Protege effect - teaching someone else requires you to learn and organise your knowledge clearly
2. **Don't listen to music** - the image to the above shows how your STM is organised. You brain cannot handle two tasks of the same type at once e.g. processing words. Therefore reading and listening to music (with lyrics in particular) will hinder your ability to learn information
3. **Avoid just highlighting** - People learn and recall information better if they **connect** it to other pieces of information. Highlighters don't do this, they isolate single pieces of information. Quite often, students end up highlighting whole chunks and passages of text, which can give the appearance of having worked hard, but is of little value



# Structured Notes Template Method



Developed in the 1950s by a university professor, the Structured Notes Template can help organise information for some subjects.

This method uses the 5 Rs:  
Record  
Reduce  
Recite  
Reflect  
Review

**Learning outcome:**

**Date:**

**Key Words/ Questions:**  
*(reflect)*

**Detailed Notes:** *(record)*

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**Summary:** *(reduce & review)*

**Learning outcome:** describe Lagos as an urban case study, explain its importance, rapid growth, challenges, differences in quality of life and connect these to the strategies being employed to improve sustainability.

**Date:**

**15th October 2026**

**Questions/Comments:**  
*(reflect)*

**Key Words:**

Mega city  
Economic hub  
Migration  
Inequality (financial/housing)  
Sustainability

**Questions:**

Why is Lagos an important city?

Why has its population increased?

What are the challenges of this growth?

**Detailed Notes:** *(record)*

**Location and Importance**

Lagos is a Nigerian megacity and major economic hub, with multinational companies, a large trade port and a significant oil industry.

**Growth and Migration**

Lagos grows rapidly due to rural-to-urban migration, arrivals from neighbouring countries and a high birth rate. Around 10,000 people arrive weekly, increasing pressure on healthcare, education and the environment. Migration creates cultural diversity.

**Challenges**

Rapid growth causes traffic congestion, pollution and waste problems. Informal settlements, such as Makoko, often lack clean water and sanitation, increasing health risks.

**Quality of Life**

There is significant inequality between rich and poor.

- **Wealthy:** Live in luxury housing and gated communities, such as Banana Island. Many work in government, oil, business or media (Nollywood). Lagos has around 9,000 millionaires.

- **Poor:** Many live in informal settlements with poor-quality housing and limited services. Common jobs include street trading and recycling waste. Around two-thirds of residents live in informal settlements or poor-quality housing.

**Sustainability**

A World Bank-supported waste-management programme provides more rubbish-collection trucks. Food waste is converted into energy and fertiliser, reducing methane emissions and supporting agriculture.

**Summary:** *(reduce & review)* Lagos is a rapidly growing Nigerian megacity and major economic hub. Migration and high birth rates increase pressure on services, causing traffic, pollution and slums. Wealth inequality is significant, while waste-management schemes aim to improve sustainability and reduce methane emissions.



## AI or not to AI:

1. A 2025 MIT study found that using **ChatGPT significantly reduces brain engagement**, engagement with tasks, and critical thinking compared to using only one's own brain. EEG scans showed 55% lower neural connectivity in ChatGPT users, resulting in "cognitive debt," where users struggled to work without AI later.
2. 83% of ChatGPT users could not remember or accurately quote the content they had just "written," indicating shallow information processing.
3. Participants who used their **brains first**, then consulted Chat GPT for help, performed better than those who relied on AI from the start
4. AI is meant to be a tool to help you, not replace you and cannot be used for exams. There are ways you can utilise AI in a supportive manner, such as 'student mode'. Be smart about your techniques now so you form memories that will last until your real exams - not just get you a pass on a one off homework essay!



# Retrieval Questions - Y12/13

|   | Question                                                    | Answer                                                                                                                                      |
|---|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | State three events that occur in G1 phase of the cell cycle | Cells grow and increase in size; proteins from which organelles are made are synthesised (transcribed and translated); organelles replicate |
| 2 | What happens during the S phase of the cell cycle?          | This is the synthesis phase, DNA is replicated.                                                                                             |
| 3 | What happens during the G2 phase?                           | Second growth phase, proteins which are involved in making the chromosomes condense are synthesised (transcribed and translated).           |
| 4 | Describe what may happen in G0 phase of the cell cycle      | Cells may undergo apoptosis, differentiation or senescence                                                                                  |
|   |                                                             | G1/S - checks for size, growth factors, nutrients, DNA damage;                                                                              |



# Independent Study Work - Y12/Y13

## Module 4: Core Organic Chemistry

1

### 4.1.1 Basic concepts of organic chemistry

Oxford: pp. 166–167  
Pearson: pp. 162–164

| Basic Concepts of Organic Chemistry | Question                                                              | Answer |
|-------------------------------------|-----------------------------------------------------------------------|--------|
|                                     | What is meant by the term 'hydrocarbon'?                              |        |
|                                     | Some hydrocarbons are unsaturated. What does this mean?               |        |
|                                     | Alkanes are a homologous series. What does this mean?                 |        |
|                                     | What is the general formula for an alkane?                            |        |
|                                     | Give the structural formula for butane.                               |        |
|                                     | Give the displayed and skeletal formulae for cyclohexane and benzene. |        |
|                                     | What is determined by the functional group of an organic molecule?    |        |



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# Using SENECA

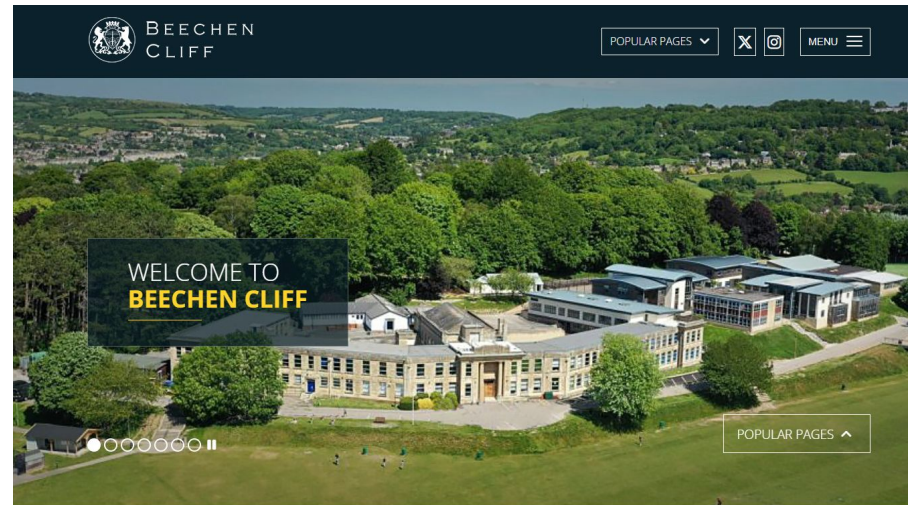
[senecalearning.com](http://senecalearning.com)



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# Finding Past Papers

[Finding KS4 and KS5 Past Papers Video](#)



Aspiration

Compassion

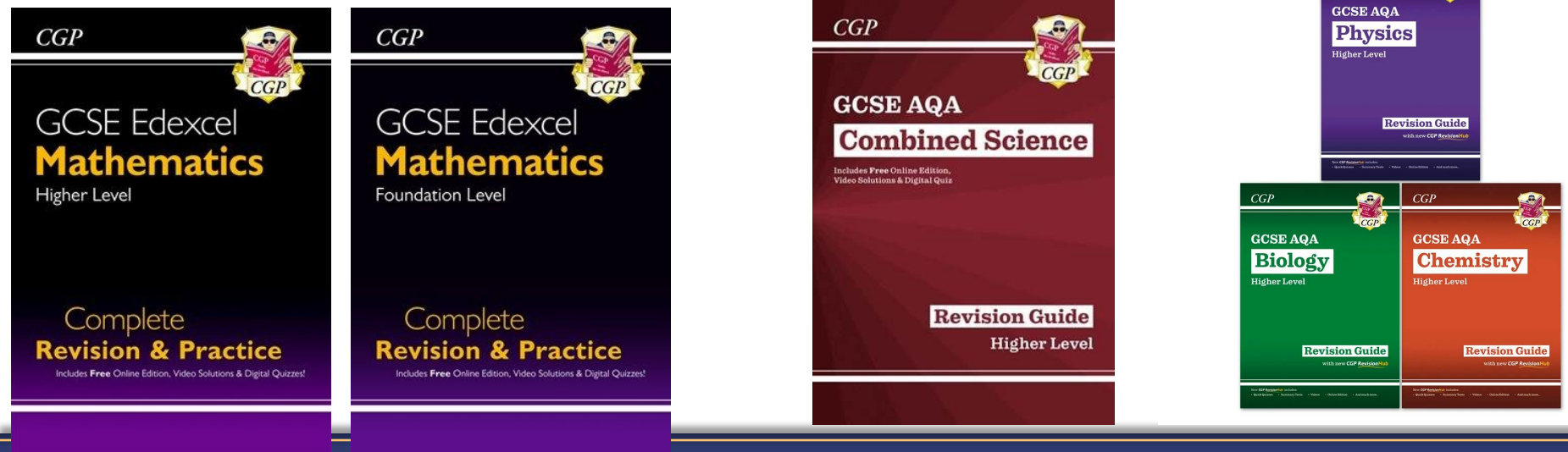
Independence

Respect



# Revision Guides

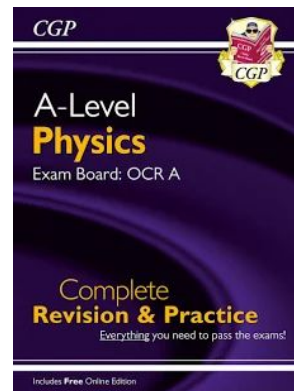
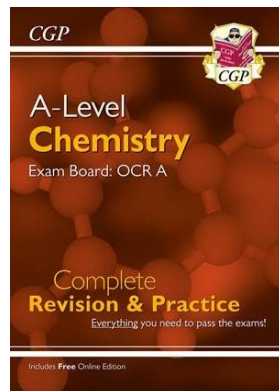
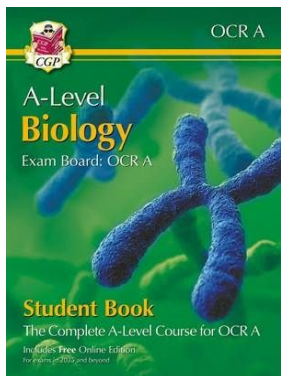
At KS4, there are many good revision guides. Do ask your teachers if there are any they recommend as these can be a valuable resource and directly relate to your course.





# Textbooks/Revision Guides

At KS5, there are many good course textbooks. Do ask your teachers if there are any they recommend, as these can be a valuable resource and directly relate to your course.





# Have a Plan

- Yr11s - 2 school weeks until mocks (*3 weeks*)
- Yr13 - 5 school weeks until mocks (*6 weeks*)
- Y10 and Y12 - mock exams in Term 6

**Create a timetable and stick to it.**

## Executive Function & Neurodiversity

Planning and time management

*'Time blindness'.*

Organisation

*Managing information and organising the information learnt in class can be challenging. Managing folders in Yr12 & 13.*

Starting/task initiation

*Difficulties getting started. Difficulties with sequential thinking.*

Self Monitoring

*This can be hindered if you are overloaded.*

Working Memory

*Overload leads to information loss.*



# Revision Timetable



Name:

Tutor Group:

| Yr 12 Revision Timetable                                                                                                                                                                                                                                                                                                                                                                                     |              |        |         |           |          |        |          |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------|---------|-----------|----------|--------|----------|--------|
| Revision reminders: <ul style="list-style-type: none"> <li>You should be revising for 2 hours each day, Monday - Friday and 4 per day at the weekend</li> <li>Remember to allocate revision time proportionately across your subjects</li> <li>You are always welcome at Homework Support in the Library after school if you would like help with your revision, or simply a quiet place to study</li> </ul> |              |        |         |           |          |        |          |        |
| Weeks to Exams Week                                                                                                                                                                                                                                                                                                                                                                                          | Month        | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
| 5                                                                                                                                                                                                                                                                                                                                                                                                            | March        | 24     | 25      | 26        | 27       | 28     | 29       | 30     |
| 4                                                                                                                                                                                                                                                                                                                                                                                                            | March /April | 31     | 1       | 2         | 3        | 4      | 5        | 6      |
| 3                                                                                                                                                                                                                                                                                                                                                                                                            | April        | 7      | 8       | 9         | 10       | 11     | 12       | 13     |



## After revision

1. Take time for yourself - make sure you're looking after your brain and body if you want it to work for you - eat, rest, socialise
2. Sleep - regular schedule and avoiding blue light before bed. This helps regulate your circadian rhythm which has a big impact on concentration and well as hormones (such as cortisol which makes you feel stressed!) - remember your circadian rhythm might be different to your friends e.g. larks and owls
3. Exercise/ fresh air - these regulate your neurotransmitters like serotonin and dopamine which are also key in assisting learning and memory
4. Be honest with yourself - Did the type of revision you did work well? Did you utilise all the tools to make it most effective? Do you need more support?



# Sixth Form 2, 4, 6 Method

1. First remove every day from the revision plan that you know you cannot revise e.g. work, family occasions, parties etc. *Be sensible but realistic!*
2. On a **school day**, revise for 2 hours of revision per day (after homework/study). Think about when & where you work best but typically 5-7pm or straight after school. Have a 15 break after each 45 minutes. 2.5 hours of allocated time
3. On a **weekend** or a day you have **no lessons**, revise for 4 hours. This is in two chunks (45 minutes then 15 minute break). If you do this in the morning and early evening, you have plenty of time to relax in between. 5 hours of allocated time
4. A few days before each exam, we suggest revising for 6 hours. This is in three chunks (15 minute breaks every 45 minutes). 7.5 hours of allocated time



# Thank you

## Contact us if needed

### **Ms Blair**

Assistant Head Teacher  
SENDco

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### **Ms Bala**

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Head of Science

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