

Year 11 Information Evening

October 2024

Work Hard- Be Kind- Be Proud

Post 16 Fayre – 10th October 6pm-8pm

AFDA

Beauchamp College

Beauchamp City

Brooksby Melton College

DMU

Fire Service

Harrinton School

Leicester College

Leicester Grammar

Moulton

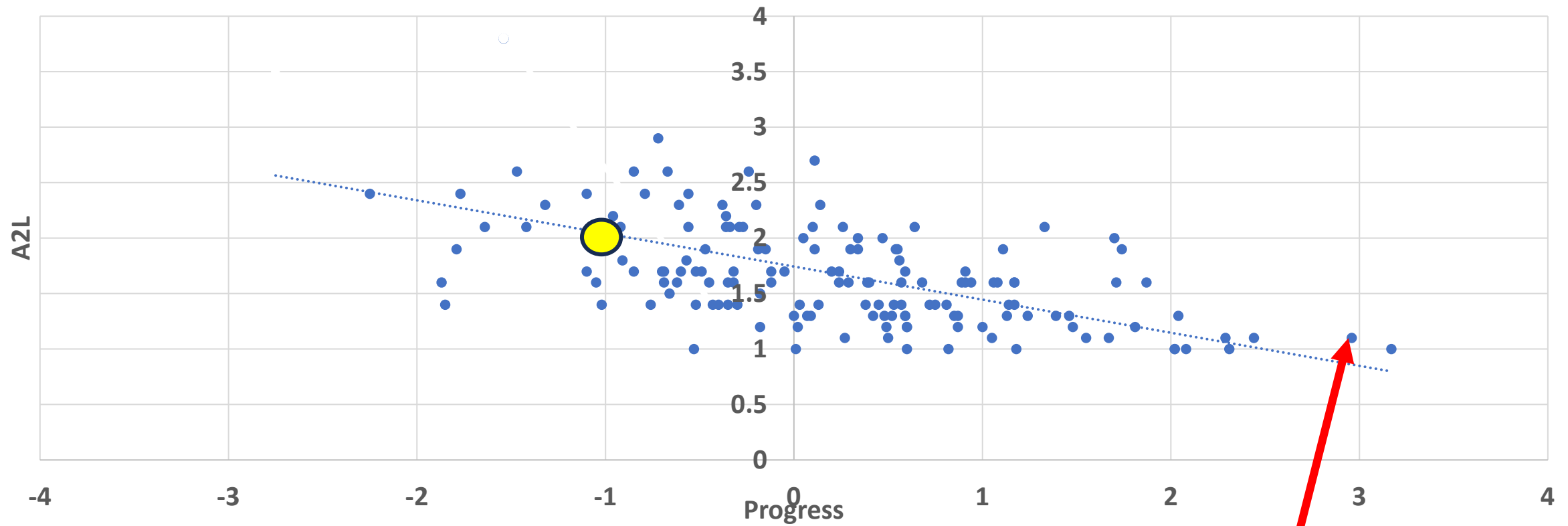
Robert Smyth

WQE College

Your chance to talk to the Post 16 providers who will be in the Sports Hall plus there will be a talk from Mrs Rees and Cheryl about the application process in the Main Hall at 6pm and again at 7pm

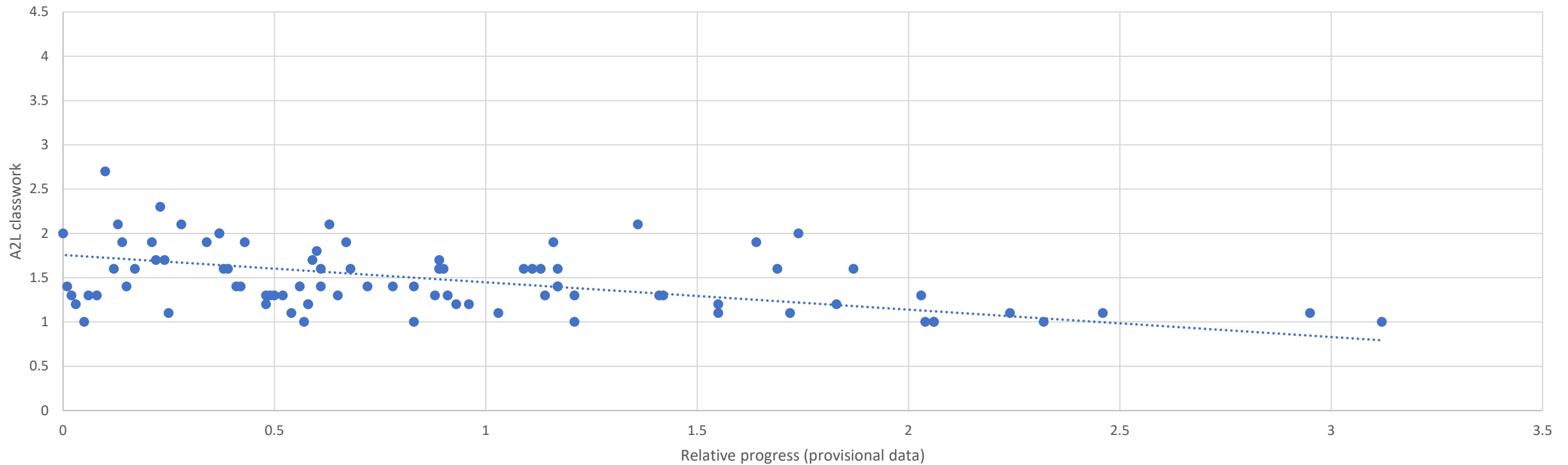


Relationship between attitude to learning and progress



Work hard- be kind- be proud

progress vs Attitude to learning



Work hard- be kind- be proud

Mock exams

Purpose:

- To allow your child to experience pressures similar to real GCSEs
- To allow your child to practice and refine revision strategies
- To embed knowledge into long term memory
- To enable teachers and students to make a plan for success
- To make the real GCSEs easier as more knowledge is retained
- To allow your child to experience success

Year 11 Mock Exams Week Commencing 18th November 2024



| Period | Monday 18 th | Tuesday 19 th | Wednesday 20 th | Thursday 21 st | Friday 22 nd |
|--------|--|---|--|---|--|
| 1 | Mathematics 8300/1F&H 1½ hours ↓ | English Language 8700/1 1¾ hours ↓ | Combined Biology 8464/B/1F&H 1¼ hours & Triple Biology 8461/1H 1¾ hours ↓ | History 1 hour ↓ | Combined Chemistry 8464/C/1F&H 1¼ hours & Triple Chemistry 8462/1H 1¾ hours ↓ |
| 2 | ↓ | ↓ | ↓ | ↓ | ↓ |
| Break | | | | | |
| 3 | Geography 8035/1 1½ hours ↓ | French (W) 8658/WF/H 1 hour / 1¼ hours Spanish (W) 8698WF/H 1 hour / 1¼ hours ↓ | Business J204/01&2 1½ hours ↓ | Sociology C200QS 1¼ hours Drama 8261/1 1 hour ↓ | Product Design 8552/W 1¼ hours ↓ |
| 4 | ↓ | ↓ | ↓ | ↓ | ↓ |
| Lunch | | | | | |

Work hard- be kind- be proud

Year 11 Mock Exams Week Commencing 25th November 2024

| Period | Monday 25 th | Tuesday 26 th | Wednesday 27 th | Thursday 28 th | Friday 29 th |
|--------|--|---|---|---|---|
| 1 | French (R & L) 8658/H 1¾ hours Spanish (R & L) 8658/H 1¾ hours Music J536/05 1½ hours | English Literature 8702/1 1¾ hours | Mathematics 8300/2F&H 1½ hours | Combined Physics 8464/P/1F&H 1¼ hours & Triple Physics 8463/1H | Mathematics 8300/3F&H 1½ hours |
| 2 | ↓ | ↓ | ↓ | ↓ | ↓ |
| Break | | | | | |
| 3 | French (R & L) 8658/F 1 hr 20 mins Spanish (R & L) 8698/F 1 hr 20 mins | Comp Science J277/01 1½ hours | Economics 8136/2 1¾ hours | Food Preparation 8585/W 1¾ hours | PE J587/01 1 hour Sports Studies R184 1 hour |
| 4 | ↓ | ↓ | ↓ | ↓ | ↓ |
| Lunch | | | | | |

Work hard- be kind- be proud



Key Message to Y11



- The right balance of work, rest and play
- Have a plan
- Track the plan
- Evaluate the plan

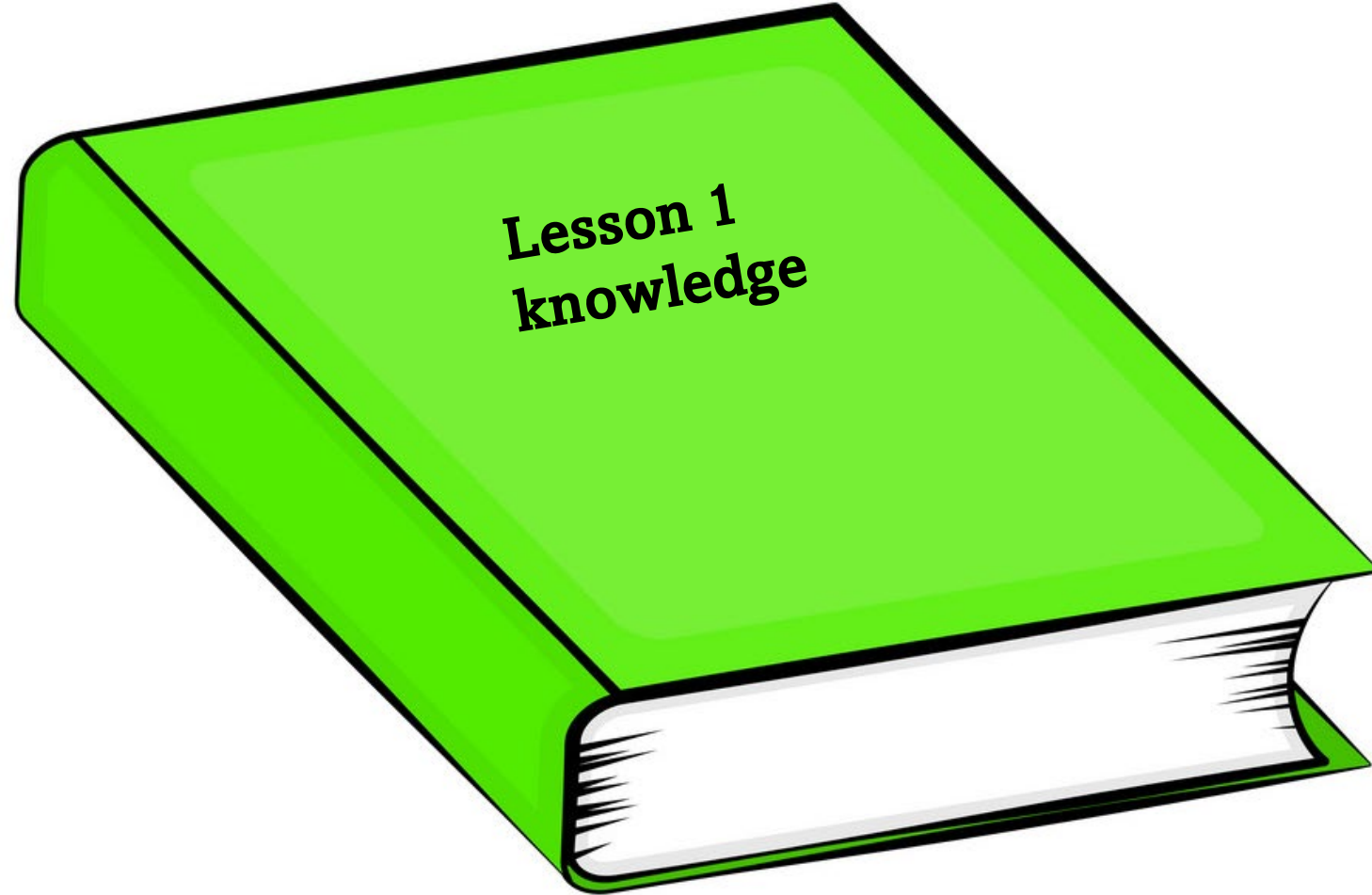
Steps to Success programme: the science of learning

Assembly follow up

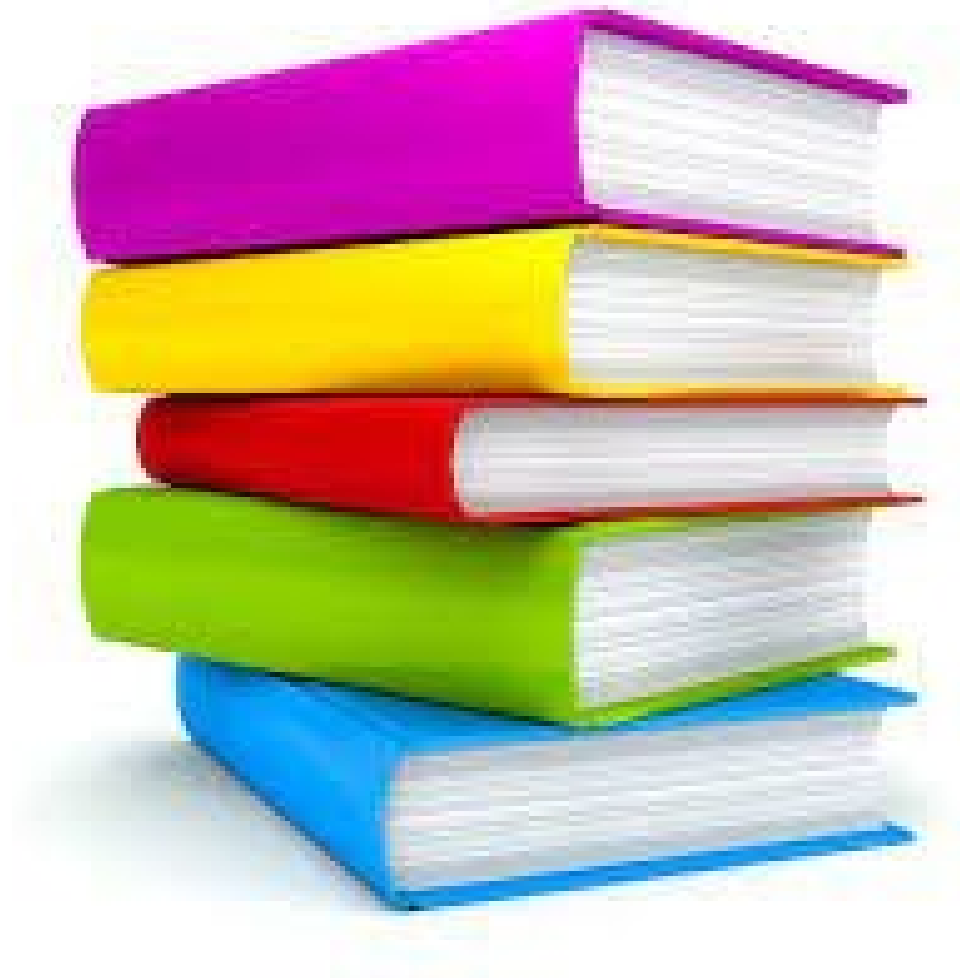
Work Hard- Be Kind- Be Proud

Year 11

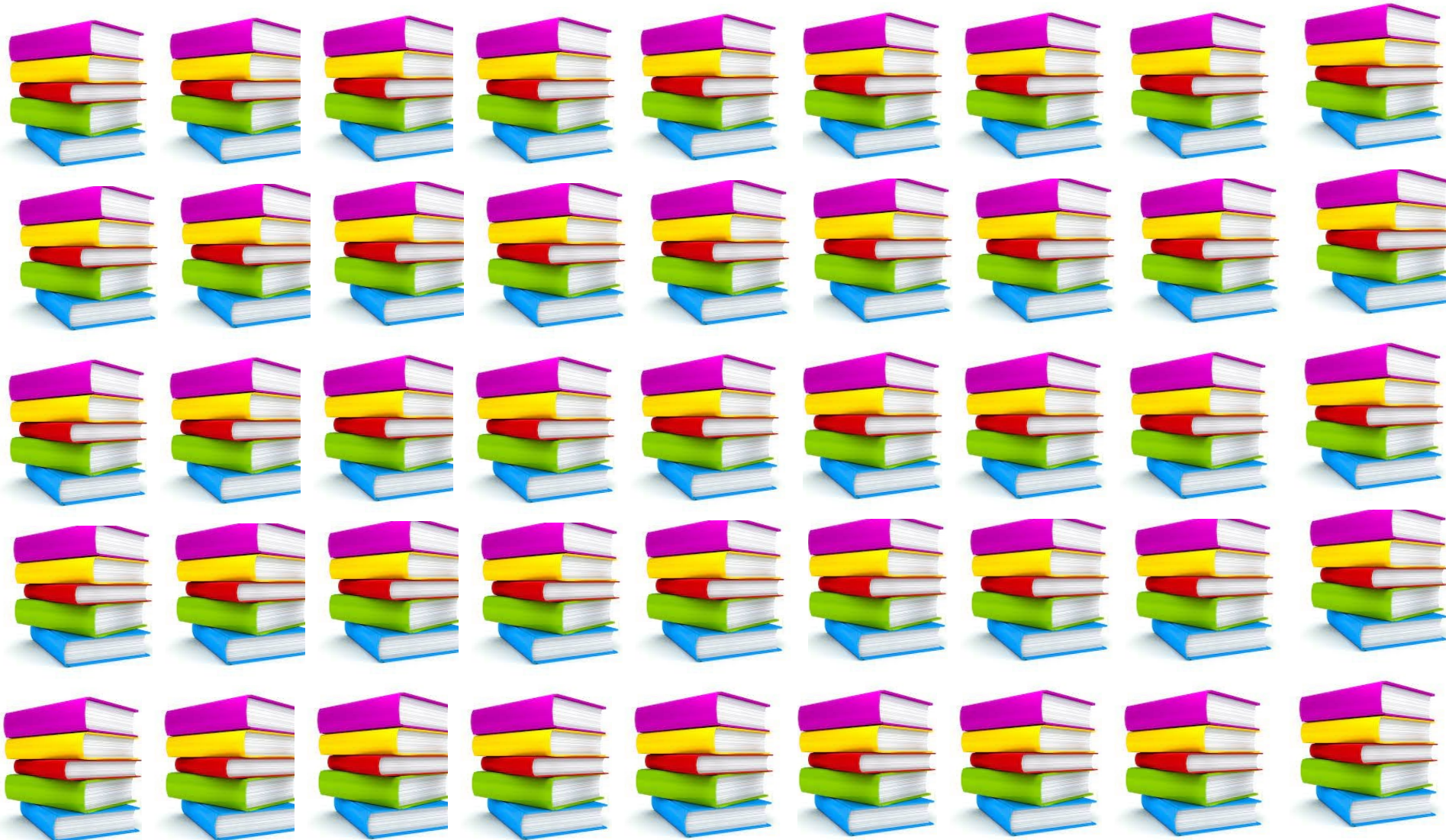
| | | |
|-------------------------|----------------------------|---|
| 2 September | Assembly | Steps to Success- overview |
| 3 September | PSHE 1 | The Science of Learning |
| w/c 9 September | PSHE 2 | Forgetting Happens |
| w/c 9 September | PSHE 3 | Using Flashcards |
| w/c 9 September | Subject focus | Practical use of Flashcards |
| w/c 16 September | PSHE 4 | Summarising and chunking |
| w/c 16 September | Subject focus | Practical use of summarising and chunking |
| w/c 16 September | PSHE 5 | Revision timetables |
| 3 October | Parent information evening | Steps to Success overview |
| 28 October- 15 November | Subject focus | Applying revision strategies in lessons |
| 11 November | Assembly | Mock exams |
| 16 December | PSHE 6 | Mock reflections and planning next steps |
| 13 January | Assembly | New Year Resolutions |
| 16 January | Parents' evening | Feedback on performance |
| 23 January | Parent information evening | Steps to Success: The final stages |
| 3 March | Assembly | Mock exams |
| 31 March | PSHE 7 | Mock reflections and planning next steps |
| 28 April | Assembly | Final exam guidance |
| May-June | Booster sessions | Timetable adjustments to allow a subject k session prior to each exam |
| May-June | Pre-exam assemblies | Last minute advice before every exam |



1 day



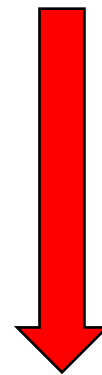
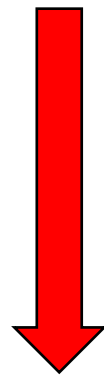
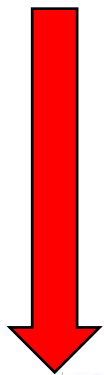
Half a term



1 year

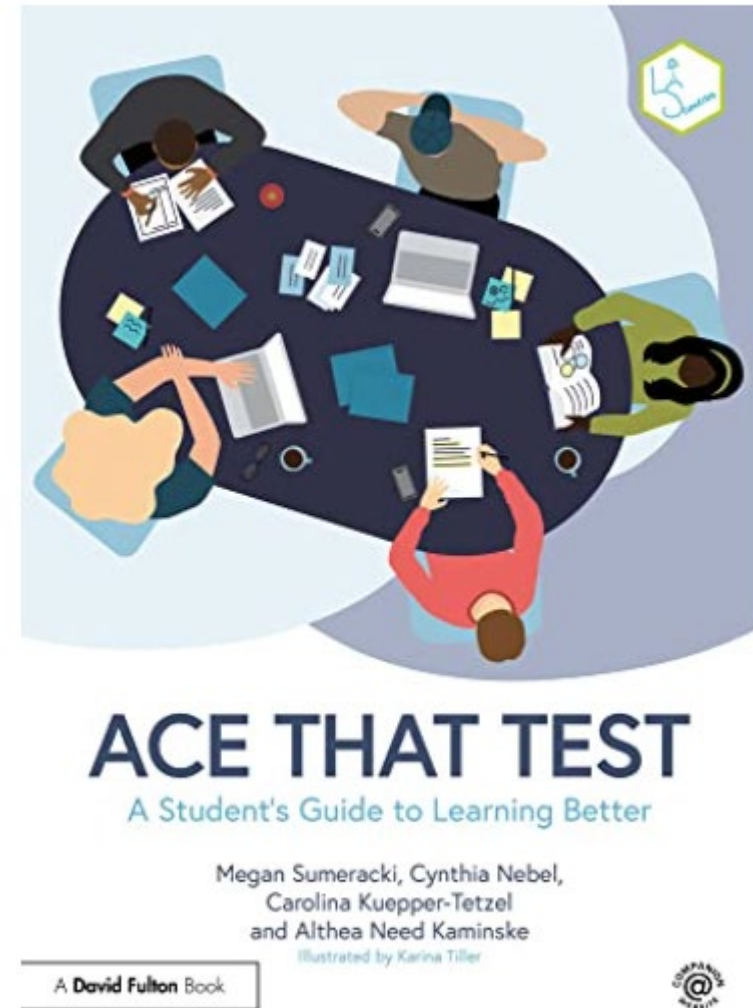


Y10
mock



Evidenced-based strategies

- [The Learning Scientists](#)



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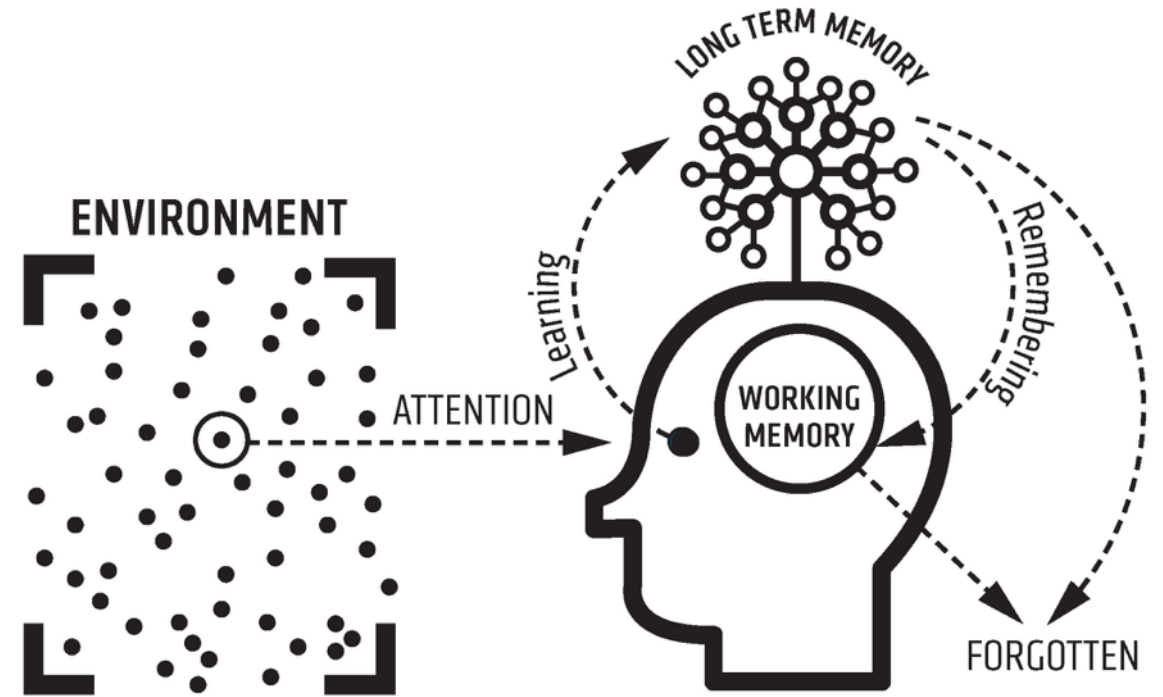
You have 20 seconds to memorise this number

Who can remember the number on the previous slide?

What strategies did you use?

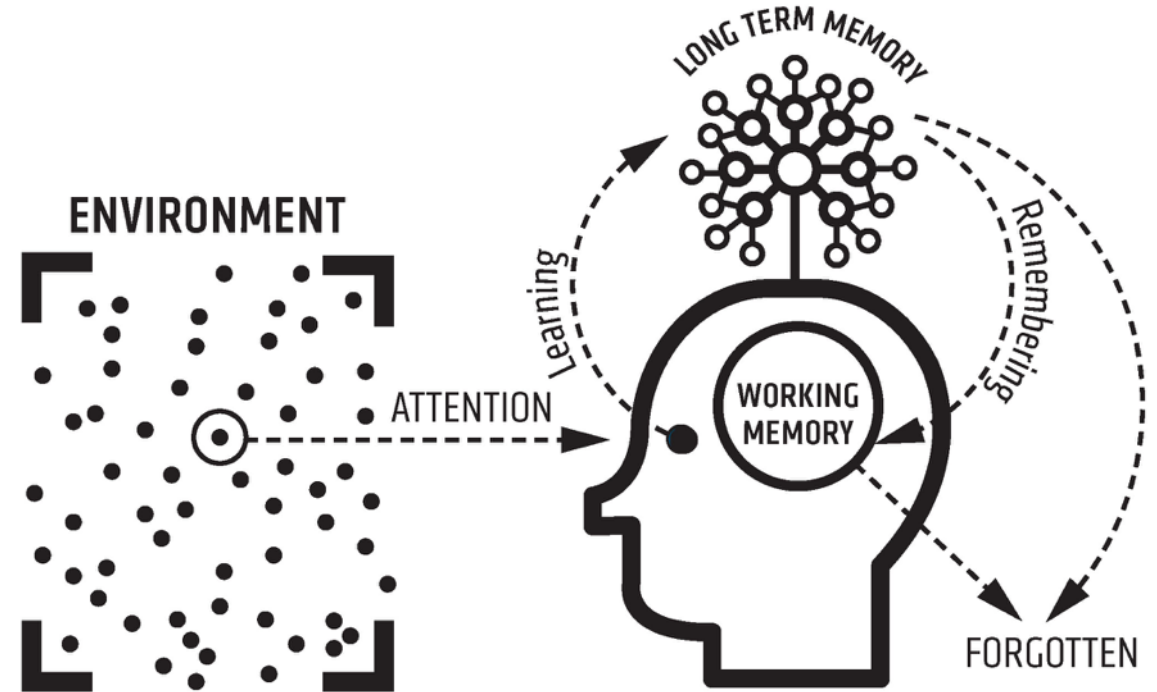
The science of learning

- In recent years, there has been lots of research around the science of learning and how we learn and retain information.
- We have a certain amount of attention to pay and this can be limited and can dramatically vary depending on the individual or the environment. In the diagram, '**attention**' means we receive new information and this is then transferred into our working memory.



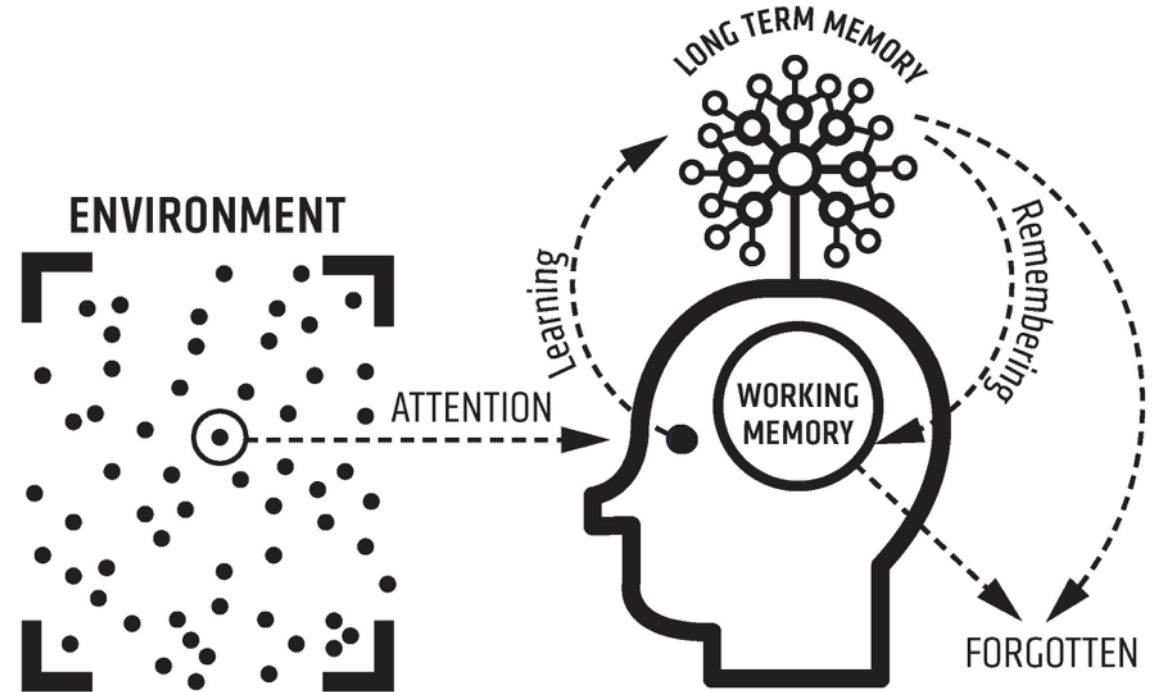
Working memory

- Our working memory is where you do your thinking and where you take in new information.
- It is finite and we can only absorb a limited amount of information at a given time otherwise it gets crowded
- Research suggests we can hold 5 things in our working memory at one time). This may be up to 30 seconds.



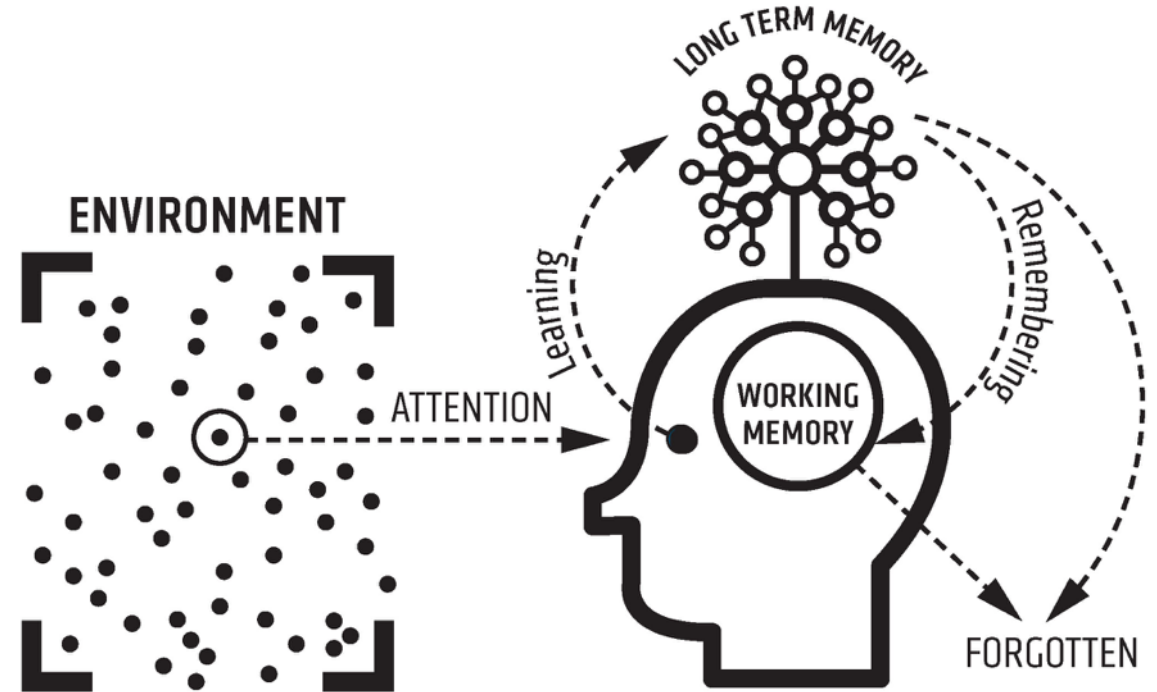
Long term memory

- Information is processed into our **long-term memory** through '**learning**'.
- This long-term memory is effectively unlimited, and we can retrieve information from here back into our working memory as needed in a given moment. When we remember something, it comes from here.
- *E.g. your phone number or address.*
- If we don't use the information it fades (is forgotten).



What is learning?

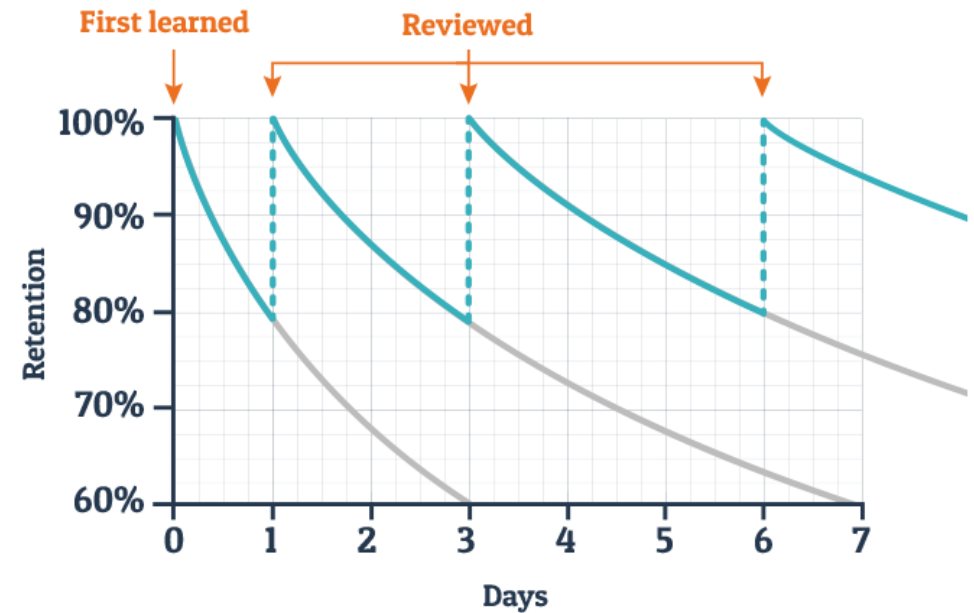
- Learning is therefore a change in your long-term memory.
- Whatever you think about, that's what you remember.
- Therefore, revision activities must require you to think hard.



The forgetting curve

- Forgetting over time is normal
- Ebbinghaus found that:
- Memory retention is 100% at the time of learning any particular piece of information (in the moment).
- However, this drops to 60% after three days.

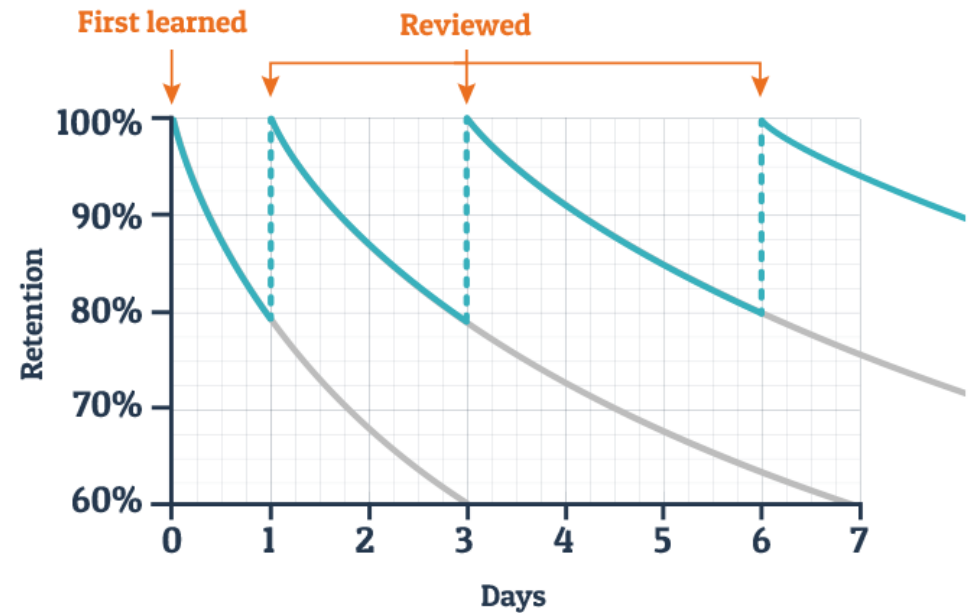
Typical Forgetting Curve for Newly Learned Information



The forgetting curve

- A range of factors affect the rate of forgetting including motivation, the meaningful nature of the information, the strategies for revision and also psychological factors (sleep for example).
- If each day, repetition of learning occurs and students take time to repeat information then the effects of forgetting are decreased.
- According to research, information should be repeated within the first 24 hours of learning to reduce the rate of memory loss.

Typical Forgetting Curve for Newly Learned Information



Who can remember the
number from earlier?

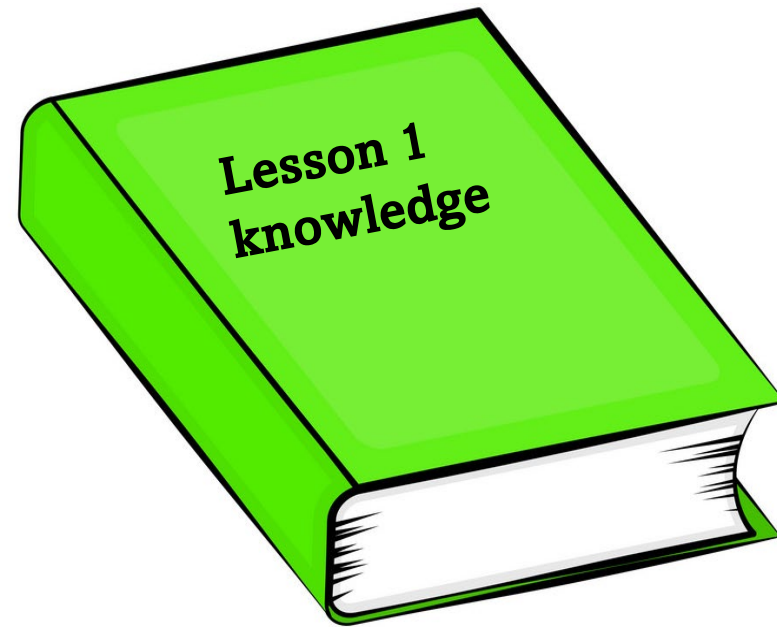
Practice and retrieval help to break this ‘forgetting curve’ as it strengthens the long-term memory and stops information from fading.

To summarise:

- Consistent practice and revisiting previous material strengthen memory and boosts learning.
- Our working memory is finite and limited and so overloading this or cramming for revision doesn't work.
- Information, if not revisited, is ‘lost’ from our memory.

How to apply this at school

- Do it as you go along
- Make every lesson count
- Make every test count



Post lesson review

After every lesson spend up to ten minutes reviewing their learning.

Make flashcards/notes as you go along.

Stages of exam preparation

1. Learn the content first time around

- Attend lessons
- Work hard
- Ask questions when you are unsure
- Post lesson review

Stages of exam preparation

2. Gather the information you need to revise

- Exercise books or notes or revision guides or knowledge organisers.
- Use specification to check you have all the information
- Start early (Spaced practice)

<https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF>

4.1.1.3 Cell specialisation

Content

Students should be able to, when provided with appropriate information, explain how the structure of different types of cell relate to their function in a tissue, an organ or organ system, or the whole organism.

Cells may be specialised to carry out a particular function:

- sperm cells, nerve cells and muscle cells in animals
- root hair cells, xylem and phloem cells in plants.

4.1.1.4 Cell differentiation

Content

Students should be able to explain the importance of cell differentiation.

As an organism develops, cells differentiate to form different types of cells.

Stages of exam preparation

3. Organise this information

- Mind maps or flashcards or summarise into notes
- Need to **think** hard
- Dual coding is really effective

Strategies that are unlikely to be effective:

- Reading over your notes
- Copying text
- highlighting



front

Weight
Mass

back

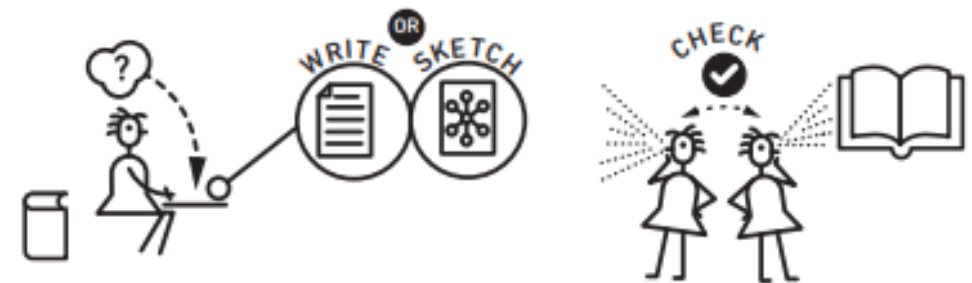
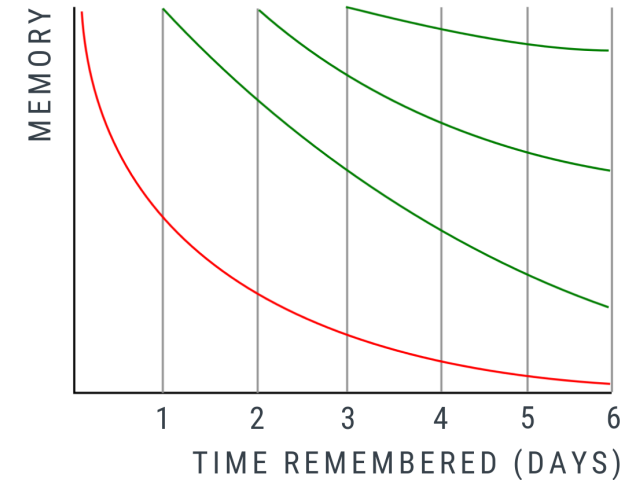
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W Newtons (N)
 m kilograms (kg)
 g Newtons per kilogram
(N/kg)

Stages of exam preparation

4. Retrieval practice

- Testing yourself increases the memory trace
- Frequent testing embeds knowledge into long term memory
- Strategies:
 - Recalling mindmaps from memory
 - Look-cover-write-check
 - Quizlet
 - Flashcard testing
 - Braindump



Stages of exam preparation

5. Exam practice

Concluding Remarks

This paper was broadly similar to papers from previous series. The errors that students made in calculations were common errors, usually involving incorrect unit conversions or failing to convert units.

An area of the specification that stood out as being particularly poorly answered was section 4.2 which was tested in the Required Practical Activity in question 3 and again in question 10.

Most of the students understand the importance of showing clear working out when completing a calculation. This is crucial in the more complex calculations.

Similar to previous series, a significant number of the students were unable to read values from graphs accurately and failed to realise when numerical values were not given in standard SI units.

Organise your time from now on

| | Mon | Tues | Wed | Thurs | Fri |
|------|----------------------------|------------------------------|------------------------------|----------|-------------|
| 4-5 | Gym | Lesson review/ notetaking | Lesson review/ notetaking | Gym | homework |
| 5-6 | Dinner and family catch up | | | | |
| 6-7 | Homework slot | See grandparents | netball | homework | See Friends |
| 7-8 | | | | | |
| 8-9 | | | | | |
| 9-10 | | | | | |

Work Hard- Be Kind- Be Proud

Work
Rest
Play

Or

Mr Wilkinson Revision Timetable – The right balance of work, rest and

| | Mon | Tues | Wed | Thurs | Fri |
|--------------|---|---|---|---|---|
| 6:30 | Motivational Video (5 mins) Shower and breakfast | Motivational Video (5 mins) Shower and breakfast | Motivational Video (5 mins) Shower and breakfast | Motivational Video (5 mins) Shower and breakfast | Motivational Video (5 mins) Shower and breakfast |
| 7:30 | Leave for school | Leave for school | Leave for school | Leave for school | Leave for school |
| 8:00 – 3:00 | School | School | School | School | School |
| 3:00 – 4:00 | Rest Check phone/chill | Rest Check phone/chill | Rest Check phone/chill | Rest Check phone/chill | Rest Check phone/chill |
| 4:00 – 4:30 | Maths session 1 | English session 1 | HSC session 1 | Maths session 1 | Chill with mates |
| 4:30- 5:00 | Maths session 2 | English session 2 | HSC session 2 | Maths session 2 | Go out with mates |
| 5:00 – 5:30 | PE bones | Science 1 | Science 1 | Science 1 | |
| 5:30 – 6:00 | PE muscles | Science 2 | Science 2 | Science 2 | |
| 6:00 – 6:30 | Dinner | Dinner | Dinner | Dinner | |
| 6:30 - 7:30 | Insta Time | Insta Time | Football Training | Insta Time | |
| 7:30 – 9:00 | Go out with mates | Visit Nana | | Go out with mates | |
| 9:00 – 10:00 | No phone or device hour | No phone or device hour | No phone or device hour | No phone or device hour | No phone or device hour |
| 10:00 | Sleep | Sleep | Sleep | Sleep | Sleep |

Avoiding stress

- Be aware of the signs of stress
- Eat well
- Get enough sleep
- Get some exercise
- **Are you working too hard? How can you change your approach?**
- Talk to someone about how you feel
- Make time for rest, other activities and hobbies

KS4 Revision Strategies for Success

Why?

Your GCSE exams test up to five years worth of knowledge. Trying to learn **all** this knowledge in summer of Year 11 is too late- you need to be making the learning from EVERY lesson stick in your brain. We need to space out the learning over time (spaced practice). This will help you build up a really solid and deep understanding of each subject and will reduce your overall stress levels. This guide is based on scientific research on how the brain works. For more information go to www.learningscientists.org.

Post lesson REVIEW

After every lesson spend up to ten minutes doing a post-lesson review.

1. Read over the lesson notes to review and check your understanding.
2. Examine the knowledge organiser/revision guide/Bitesize
3. Retrieval practice on key knowledge by self-testing
4. Investigate links to previous work *Elaboration*
5. Explain key concepts to yourself *Elaboration*
6. What's coming up next lesson? Predict and anticipate.

How to revise for a test/exam

1. Give yourself plenty of time so start the process early. *Spaced practice.*
2. Gather together all your notes for the topic.
3. Make a mindmap or flashcards on the topic to organise the knowledge. *Use dual coding.*
4. Test yourself on the mindmap or flashcards (*retrieval practice*)
5. Use past paper questions without using your notes.
6. Identify where you have lost marks.
7. Review the topics where you have lost marks and try the past papers again.
8. Switch between different topics and in different orders *interleaving.*

Making and using effective flashcards

Flashcards work for learning definitions, vocabulary, quotes etc. and allow **retrieval practice** through recall.

- Put a question or heading/key word on one side and the answer or definition on the other.
- Try adding a picture (*dual coding*).
- Only one question/keyword per card to ensure 100% recall
- Self test by calling out answers.
- Try it both ways round: start with the answer and recall the question.

Weight
Mass

front

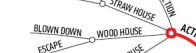
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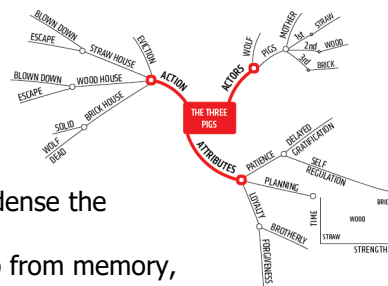
| | |
|-----|--------------------------------|
| W | Newtons (N) |
| m | kilograms (kg) |
| g | Newtons per kilogram (N/kg) |

back

Making and using effective mindmaps

Mindmaps work for a theme or topic.

- Subdivide the topic into the main themes.
 - Subdivide each theme further, adding keywords and key information.
 - The aim is to summarise and condense the information.
 - Self test by recalling the mindmap from memory, ***elaborating*** on each word and adding detail.
- 



Cornell notes- a memorisation strategy

We don't **learn** without **thinking**. So your brain needs to be working hard in lessons and in your independent study. Activities like copying text, where you are not thinking, do not help you learn. Cornell notes is a note taking technique that gets you to **think**.

Key words
Questions
Comments

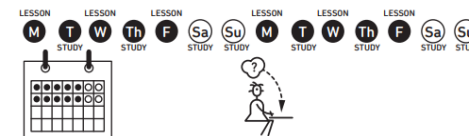
Notes taken
in class

summary

Glossary- Revision strategies that are proven to work

Spaced practice

Space out your revision over time. Review knowledge regularly, e.g. 1 month, 1 week, 1 day before test.



Retrieval practice

Practice recalling the knowledge from your memory. Regularly test yourself. Try revision apps like quizlet.



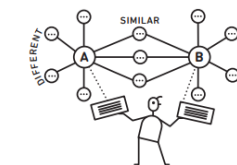
Dual coding

Combine words and visuals. The brain processes words and visuals separately so this leaves two memory traces.



Elaboration

Explain and describe ideas with many details. Make connections.



Interleaving

Switch between ideas during a revision session. Go back over the topics in different orders.



**You are not on
your own**

Year 11

| | | |
|-------------------------|----------------------------|--|
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| 3 September | PSHE 1 | The Science of Learning |
| w/c 9 September | PSHE 2 | Forgetting Happens |
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| Day | Revision Session |
|-----------|---|
| Monday | Geography revision, Mrs Patel & Miss Mathers H3 GCSE Music Clinic - lunch- GCSE music students can book in time to rehearse or record concert and exam pieces-(music room-Mr Jones) |
| Tuesday | Business revision (3pm – 4pm), E7 Food NEA Support, Miss Freeman (3-4pm), ICT1 (<i>week commencing 16th Sep</i>) History revision (3pm-4pm) H5 Combined Chemistry revision- Higher and Foundation- Mrs Francis- S5 GCSE Drama Clinic . Lunch- GCSE Drama students can book in time to rehearse exam pieces or work on written elements of the course (Drama studio Mrs Jaremczenko-Dye) Triple Chemistry revision- Lunch- Mr Carr- S3 |
| Wednesday | Sociology Revision (3-4pm) H6 Combined Biology revision-Higher and Foundation-Dr Saadat-S1 |
| Thursday | Economics revision (3.10pm – 4pm) in E7 Design and Technology NEA catch up session (3-4pm), Miss Barratt, A5 Triple Biology revision- Mrs Rashid-S2- <i>Starting on the 26th September</i> Combined Physics revision- Higher and foundation- (Mr Rice S4)- French revision L2 3pm - 4pm Maths Intervention (Mr. Taylor, M5) |
| Friday | Computer Science – Booster Revision. 3.10pm - 3.55pm. ICT2 Triple Physics revision- Dr Thompson- S2- |

Support materials

- Steps to Success: How to revise
- Subject specific materials

JCQ Changes for 2025

- Physics formula sheets
- Students expected to remember all equations

Unit 1: Energy

| Equations to Learn | |
|--|---------------------------------|
| kinetic energy = $\frac{1}{2} \times \text{mass} \times \text{speed}^2$ | $E_k = \frac{1}{2}mv^2$ |
| GPE = mass \times gravitational field strength \times height | $E_p = mgh$ |
| power = $\frac{\text{work done}}{\text{time taken}} = \frac{\text{energy transferred}}{\text{time taken}}$ | $P = \frac{W}{t} = \frac{E}{t}$ |
| efficiency = $\frac{\text{useful energy output}}{\text{total energy input}}$ | |
| efficiency = $\frac{\text{useful power output}}{\text{total power input}}$ | |
| Equations given in the exam | |
| elastic potential energy = $0.5 \times \text{spring constant} \times (\text{extension})^2$ | $E_e = \frac{1}{2}ke^2$ |
| change in thermal energy = mass \times specific heat capacity \times temperature change | $\Delta E = mc\Delta\theta$ |

Unit 2: Electricity

| Equations to Learn | |
|--|-------------------|
| charge flow = current \times time | $Q = It$ |
| potential difference = current \times resistance | $V = IR$ |
| total resistance = resistance of component 1 + resistance of component 2 | $R_T = R_1 + R_2$ |
| power = current \times potential difference | $P = IV$ |
| power = (current) $^2 \times$ resistance | $P = I^2R$ |
| energy transferred = power \times time | $E = Pt$ |
| energy transferred = charge flow \times potential difference | $E = QV$ |

* Higher tier only

^ Separate Physics only

Unit 3: Particles and Matter

| Equations to Learn | |
|---|-----------------------------|
| density = $\frac{\text{mass}}{\text{volume}}$ | $\rho = \frac{m}{V}$ |
| Equations given in the exam | |
| change in thermal energy = mass \times specific heat capacity \times temperature change | $\Delta E = mc\Delta\theta$ |
| thermal energy for a change in state = mass \times specific latent heat | $E = mL$ |
| ^ for a gas: pressure \times volume = constant | $pV = \text{constant}$ |

Unit 6: Waves

| Equations to Learn | |
|--|--|
| wave speed = frequency \times wavelength | $v = f\lambda$ |
| Equations given in the exam | |
| time period = $\frac{1}{\text{frequency}}$ | $T = \frac{1}{f}$ |
| ^ magnification = $\frac{\text{image height}}{\text{object height}}$ | $M = \frac{h_{\text{image}}}{h_{\text{object}}}$ |

Unit 7: Magnetism and Electromagnetism

| Equations given in the exam | |
|--|-------------------------------------|
| * Force = magnetic flux density \times current \times length of conductor in magnetic field | $F = BIl$ |
| potential difference across primary coil = potential difference across secondary coil | $\frac{V_p}{V_s} = \frac{N_p}{N_s}$ |
| number of turns in primary coil = number of turns in secondary coil | |
| * ^ p.d across primary \times current in primary = p.d. across secondary \times current in secondary | $V_p I_p = V_s I_s$ |

Unit 8: Forces

| Equations to Learn | |
|---|---|
| weight = mass \times gravitational field strength | $W = mg$ |
| work done = force \times distance (moved along the line of action of the force) | $W = Fs$ |
| force = spring constant \times extension | $F = ke$ |
| moment of a force = force \times distance (perpendicular to the direction of the force) | $M = Fd$ |
| pressure = $\frac{\text{force normal to a surface}}{\text{area of that surface}}$ | $p = \frac{F}{A}$ |
| distance travelled = speed \times time | $s = vt$ |
| acceleration = $\frac{\text{change in velocity}}{\text{time taken}}$ $= \frac{\text{final velocity} - \text{initial velocity}}{\text{time taken}}$ | $a = \frac{\Delta v}{t}$ $= \frac{v - u}{t}$ |
| resultant force = mass \times acceleration | $F = ma$ |
| * momentum = mass \times velocity | $p = mv$ |
| Equations given in the exam | |
| * ^ Pressure = height of column \times density of liquid \times gravitational field strength | $p = h\rho g$ |
| ^ (final velocity) 2 - (initial velocity) 2 = $2 \times$ acceleration \times distance | $v^2 - u^2 = 2as$ |
| * ^ Force = $\frac{\text{change in momentum}}{\text{time taken}}$ | $F = \frac{m\Delta v}{t}$ |

Unit 4: Atomic Structure & Unit 8: Space

There are no equations in these sections of the course

Work Hard- Be Kind- Be Proud

Advice from Mr Wilkinson