



- INTRODUCTION
- 'MAKING REVISION STICK'
- Using Technology to Revise
- Spaced Learning Effective Planning



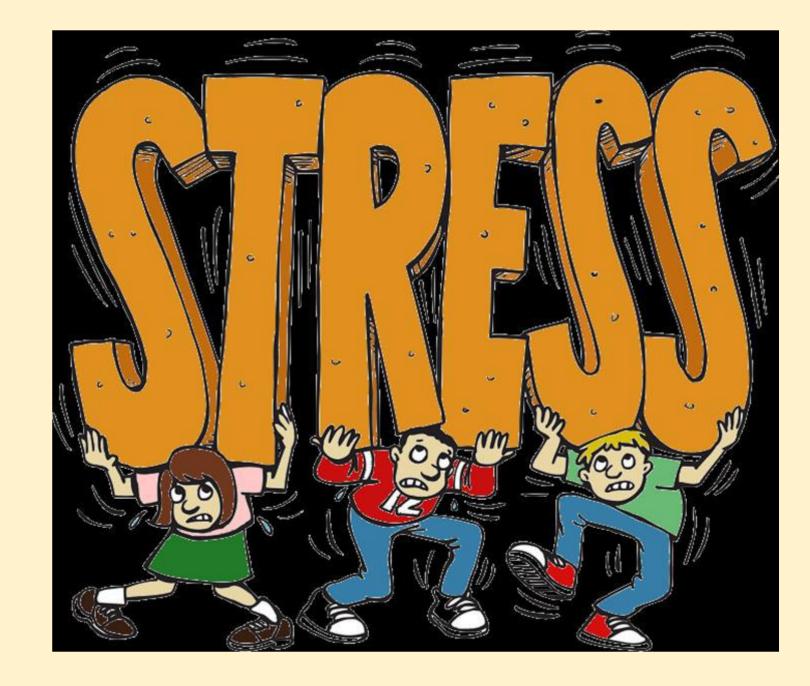


## WELCOME – THE NEW GCSE LANDSCAPE



- INCREASED PRESSURE TO PERFORM IN EXAMS
- NO SAFETY NET OF COURSEWORK
- A RAISED BAR
- MORE EXAMS
- A NEED TO MEMORISE MORE CONTENT







### FINDING A LITTLE BIT OF CALM

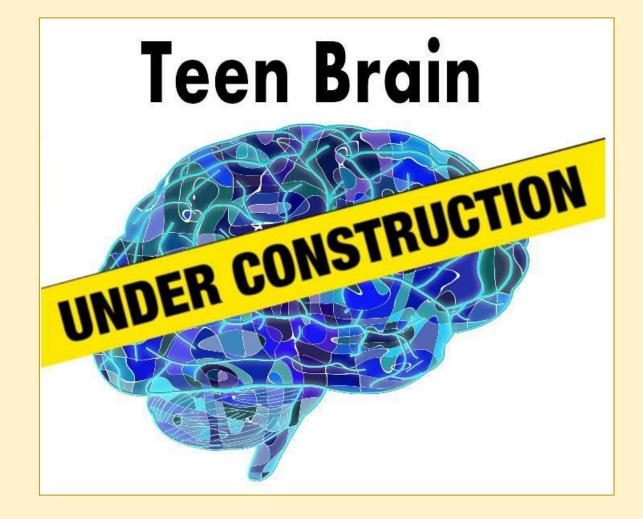


### 'MAKING SURE THEY ARE THE BEST PHYSICALLY AND MENTALLY WILL IMPROVE PERFORMANCE, HEALTH AND ENJOYMENT'



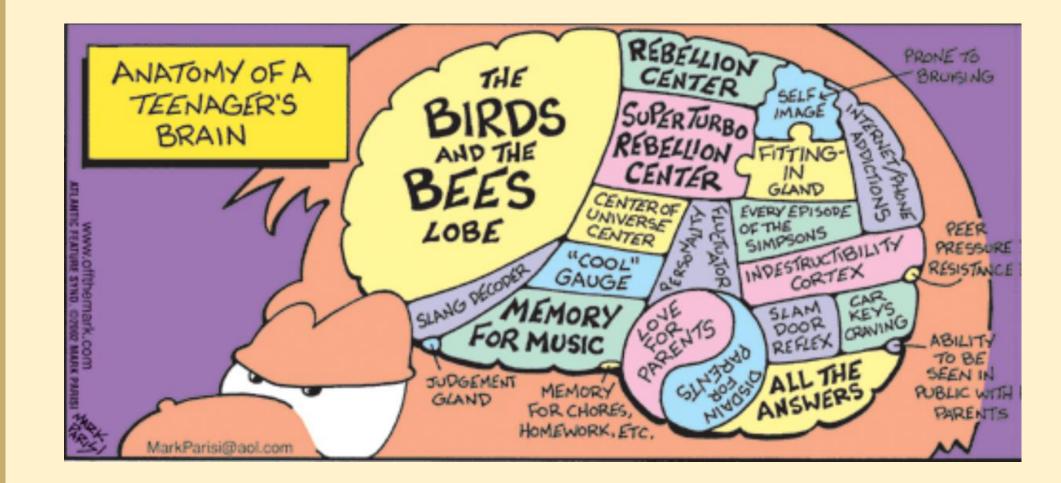


# KNOWLEDGE IS NOT HARD-WIRED FROM BIRTH



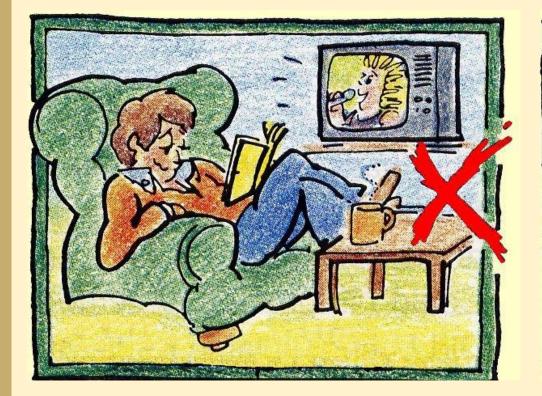


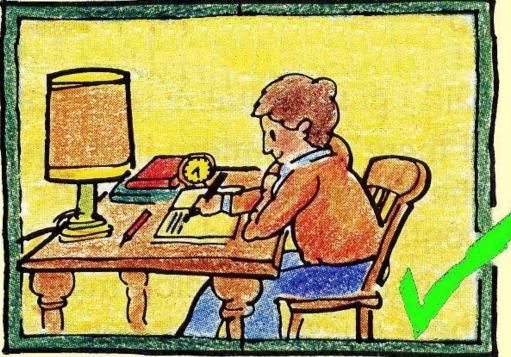
## POTENTIALLY A TEENAGERS BRAIN...





# GETTING THE ENVIRONMENT RIGHT IS THE FIRST STEP!





## THE MYTH

# NOT POPULAR, BUT EXTREMELY EFFECTIVE!



# MASTERY REQUIRES BOTH THE POSSESSION OF FACTS AND THE CONCEPTUAL UNDERSTANDING OF HOW TO USE THEM



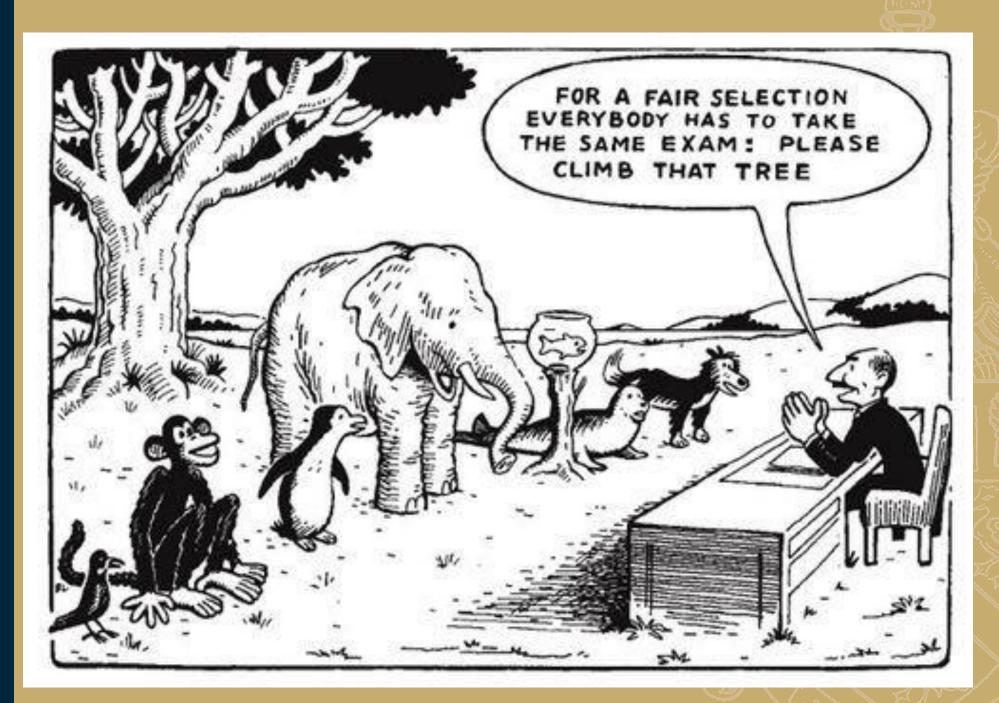
# SIMPLE REVISION WILL IMPROVE THEIR GCSE RESULTS



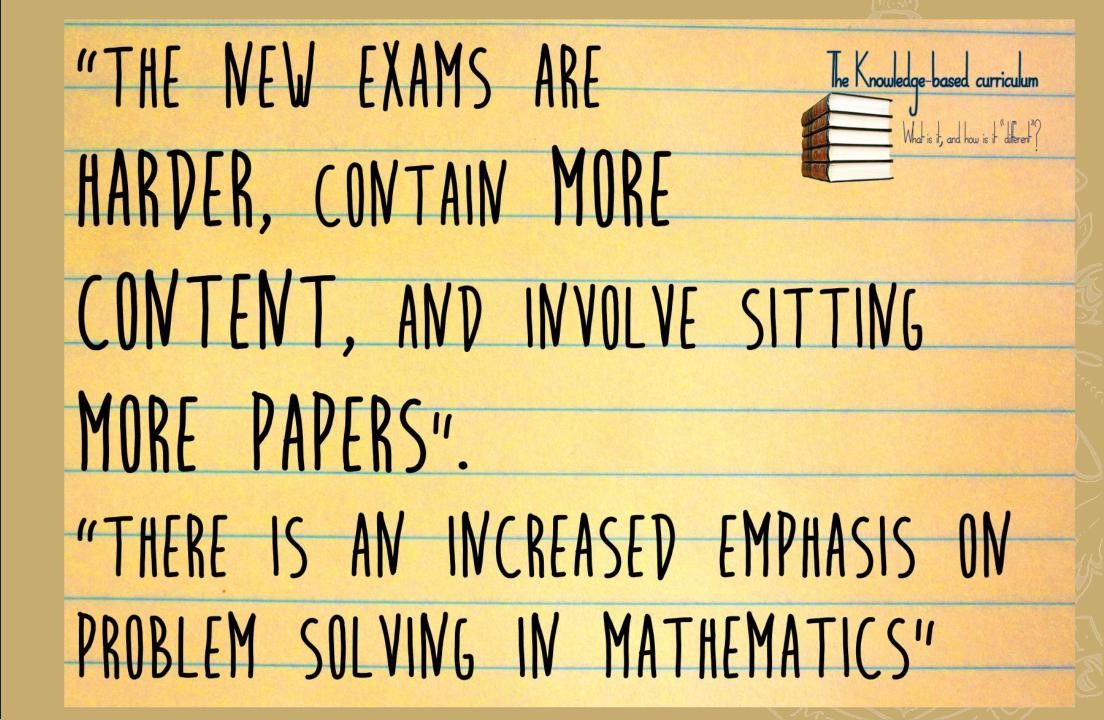
# The Nnowledge-based curriculum

# What is it, and how is it different

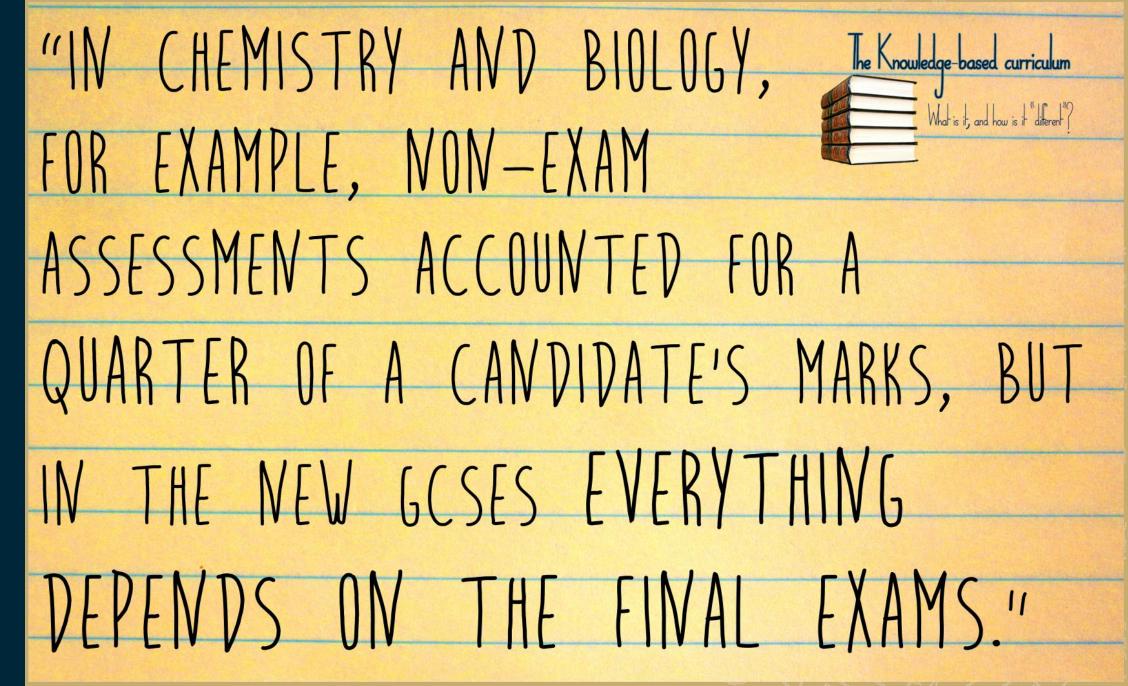




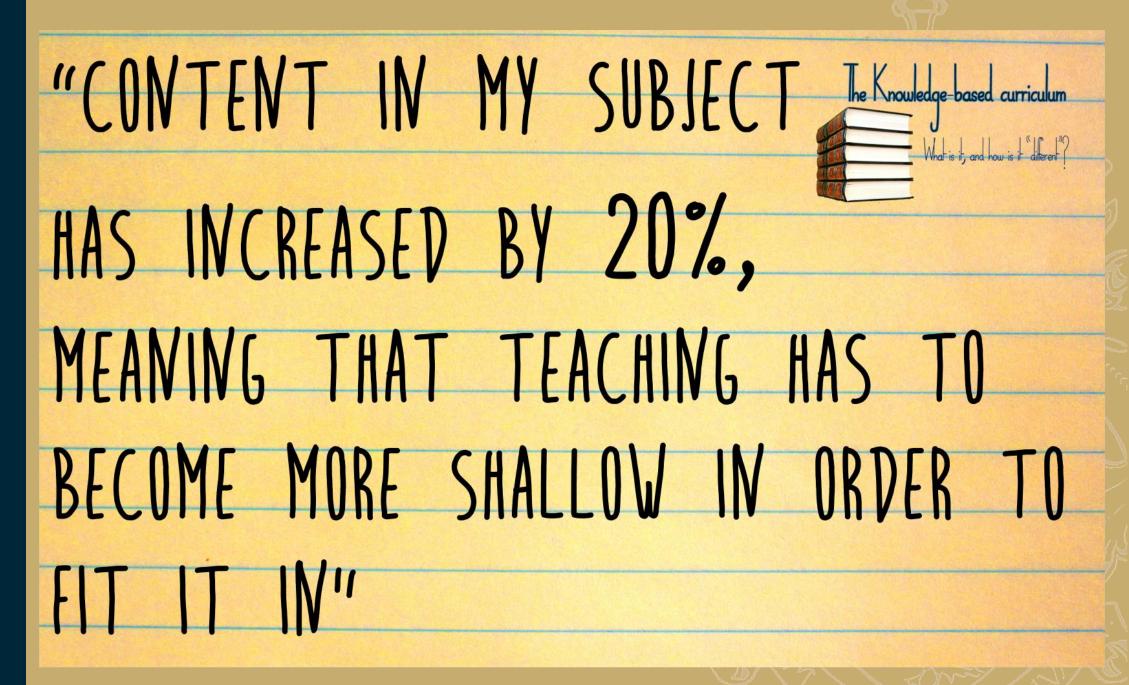




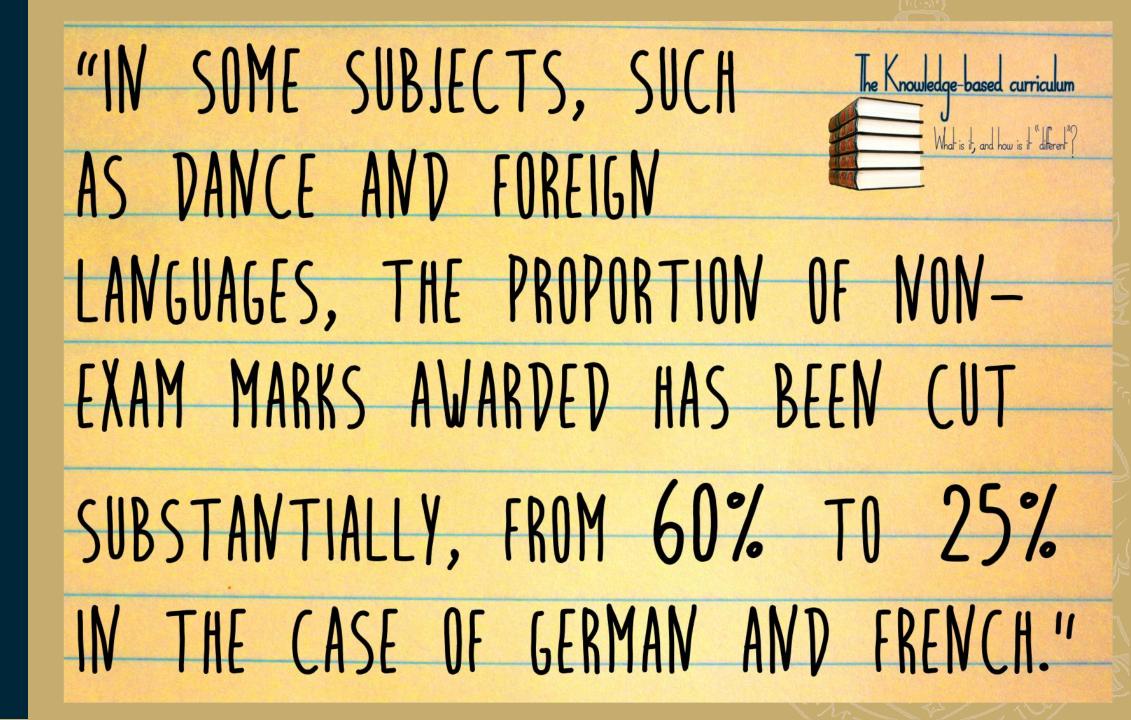
















# You don't understand what it's like!

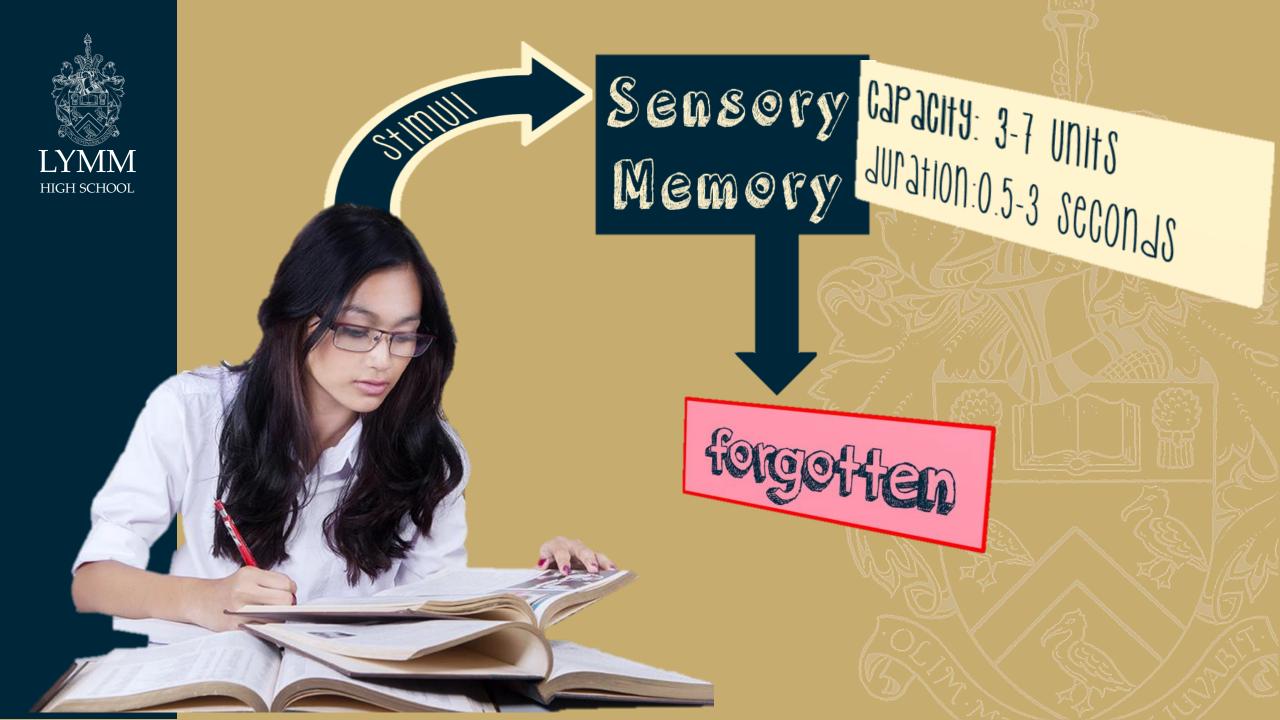


My exams aren't for ages

# I'll revise in a bit...



https://www.youtube.com/watch?v=Ahg6qcgoay4





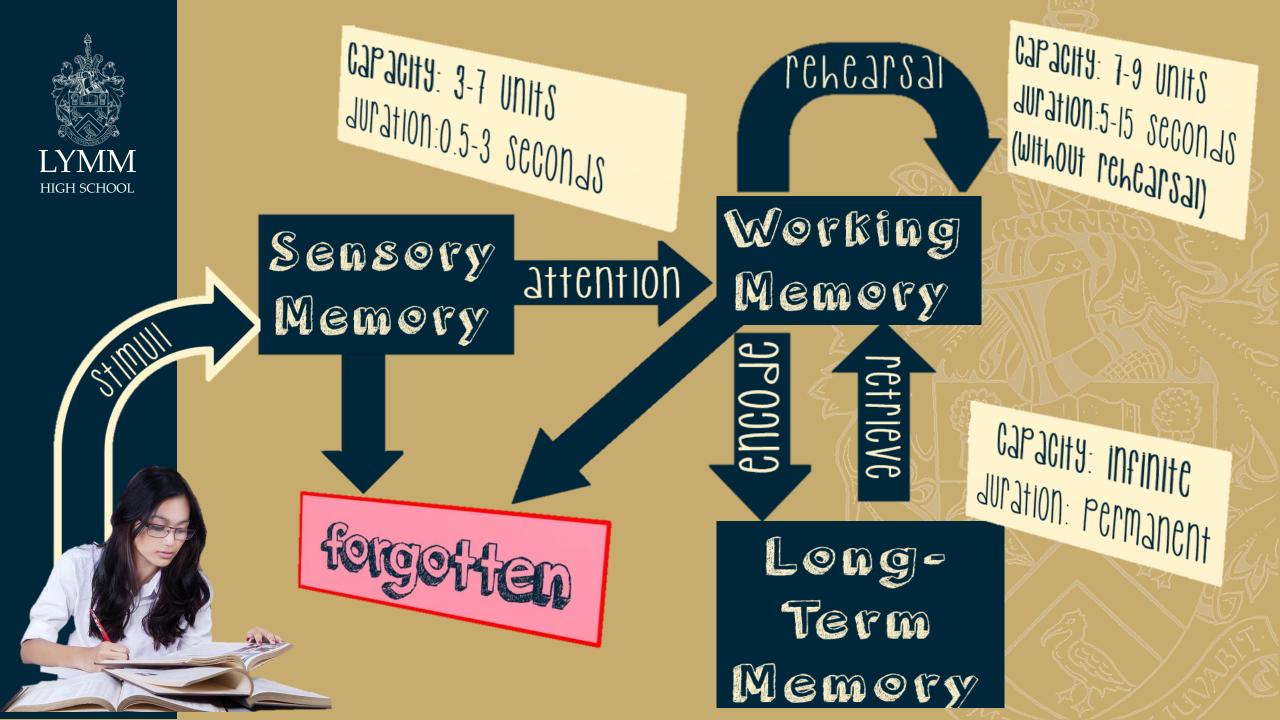
# "Memory is the residue of thought"...

We remember what we think about...so although students might say "I've done it", it doesn't mean "I know it"!



So how can we be sure that we know that they know what they think they know?!

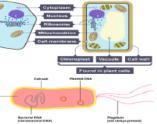




LYMM HIGH SCHOOL

ege Organise Plant cell Cells

- Most animal cells have a nucleus, cytoplasm, membrane,
- mitochondria and ribosomes. Plant and algal cells also have a cell wall and often have
- chloroplasts and a permanent vacuole. 3. Plant and animal cells are eukaryotic cells which have a
- membrane, cytoplasm and a nucleus. Bacterial cells are prokarvotic cells.
- 5. They are smaller than eukaryotic cells and have a cell wall, membrane and cytoplasm, but do not have a nucleus.
- 6. Their genetic material is a single loop of DNA or several small rings of DNA called plasmids in the cytoplasm.



	Specialised cell		Function	Adaptations
7.	Red blood cell	Ö	Carries oxygen.	<ul> <li>Large surface area.</li> <li>Contains haemoglobin.</li> <li>No nucleus to create more space.</li> </ul>
8.	White blood cell		Destroys microorganisms.	Irregular shape to get out of blood vessels.
9.	Egg cell (ovum)	Ő	Join with sperm cell and provide food for new cell formed.	Large     Contains lots of cytoplasm
10.	Sperm cell	هر	Reach and join with egg cell.	<ul> <li>Long flagellum (tail) for swimming</li> <li>Enzymes of head to break into egg.</li> </ul>
11.	Nerve cell	*)	Carry nerve impulses to different parts of the body.	Long     Connections at each end.     Carry electrical signals.
12.	Muscle cell	-	Move the body.	<ul> <li>Contain protein fibres that contract.</li> <li>Large numbers of mitochondria.</li> </ul>
13.	Ciliated cell	-	Move mucus.	Thin layer of tiny cilia (moving hairs).
14.	Palisade cell		Absorb sunlight for photosynthesis.	<ul><li>Large surface area.</li><li>Lots of chloroplasts.</li></ul>
15.	Root hair cell	$\sim$	Absorb water and minerals	Large surface area.
16.	Xylem cell	100000000000000000000000000000000000000	Moves water through the plant.	Made of dead cells.     Thick, strengthened cellulose cell wall.     Hollow lumen.
17.	Phloem cell		Moves food through the plant.	<ul> <li>Made of living cells.</li> <li>Connected by sieve plates to form a tube.</li> </ul>

### Cell differentiation

- 18. Cells differentiate to form different types of cells. Animal cells differentiate at an early stage, whereas many plant cells can differentiate throughout life.
- 19. Differentiation is the generation of specialised cells which acquire different organelles to enable them to carry out specific functions.
- 20. Cells may be specialised to carry out a particular function.
- 21. Stem cells are unspecialised cells that can differentiate to form many different types of cells.
- 22. Stem cells from human embryos and adult bone marrow can be cloned and made to differentiate into different cells.
- 23. Stem cells may be used to treat paralysis and diabetes in the future.
- 24. In therapeutic cloning an embryo with the same genes as the patient is produced. Cells from this embryo will not be rejected by the patient.
- 25. Risks e.g. transfer of viruses, associated with the use of stem cells in medicine.
- 26. Stem cells from meristems in plants are used to produce clones quickly and cheaply.

### COMPONENT 1 - SECTION A: ADVERTISING

### HETORICAL CONTEXT: MEDIA LANGUAGE

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Working Memory

This is a really simple strategy that your child can do independently, but it is a great way to check whether they are starting to remember the "threshold concepts" that they need for that particular subject.

It is a very effective way to use Knowledge Organisers.

Additionally, it helps them to become more resilient learners, because they are then able to address the misconception themselves.



Our working memory is designed to be used for working only – not long term storage. It has limited capacity. Students find themselves unable to retain the information, they become stressed and often give up, convincing themselves they are no good at revising or that they "can't do \_\_\_\_".

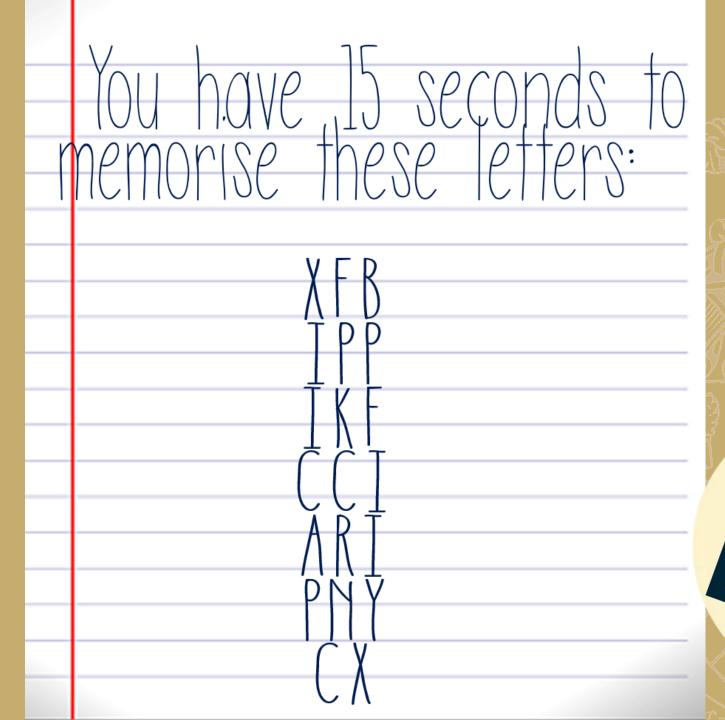
How can we help students to remember the information in the short term, so they are able to do the "read, cover, write, check, correct" successfully?



Check

COMB









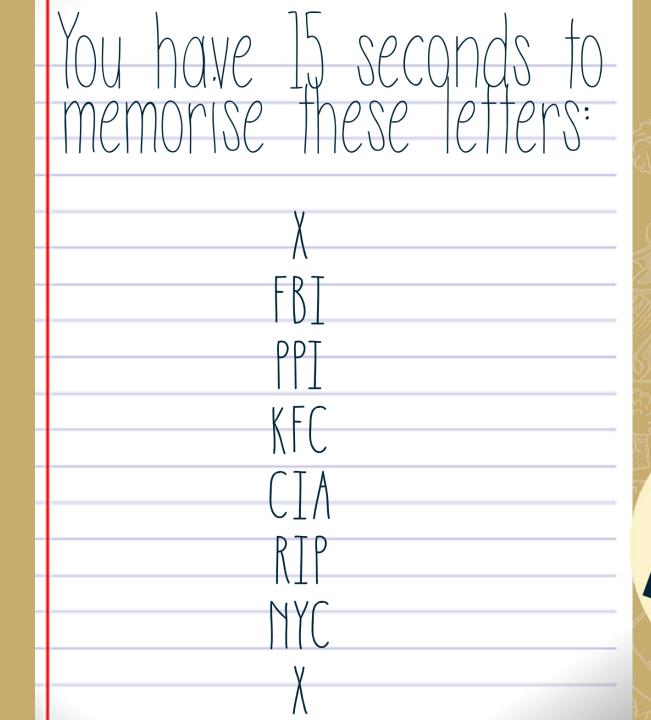
# Now write them down...

read, cover, write, c

rehearsar

Working Memory









# Now write them down...

read, cover, write, c

rehearsar

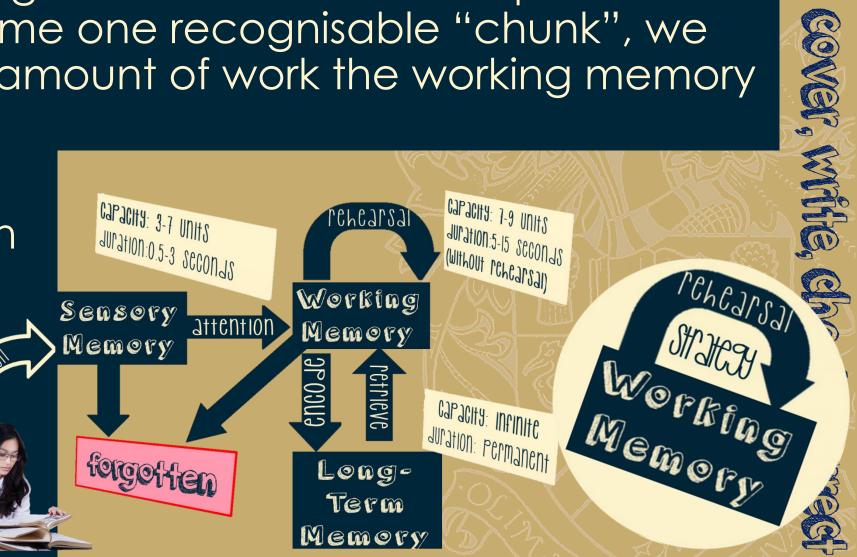
Working Memory



# These are exactly the same letters, but in a different order.

By re-ordering them so each three separate letters become one recognisable "chunk", we reduce the amount of work the working memory has to do.

Chunking is a great strategy to use when doing the read, cover, write, check correct activity with knowledge organisers.







# To be able to adapt something, you really have to understand its **different components**.

Apply the knowledge from a Knowledge Organiser to a different context, or present it for a different audience.

Memo

Transform this image into a 100 word written description, using your knowledge of Apartheid and Mandela to flesh out the detail.

Working Memory

arrive

ich I hope to live for and achieve. leal for which I am prepared to

### a trial

endant is guilty or not guilty

e crime if the verdict is guilty

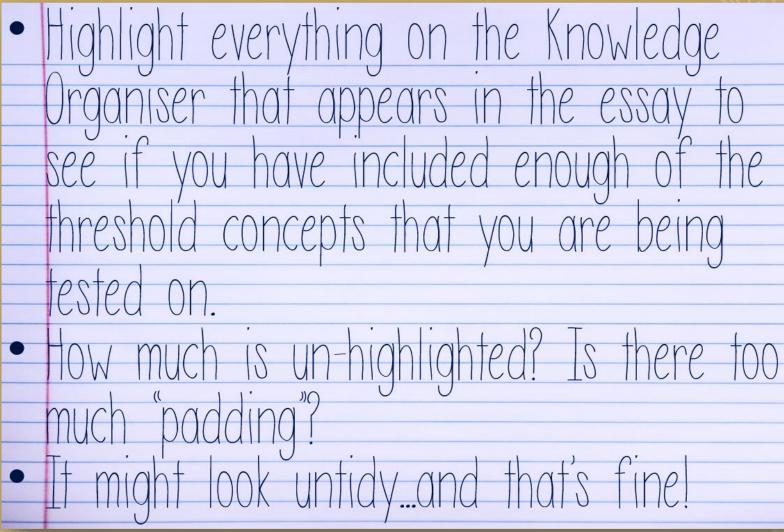
who decides the sentence

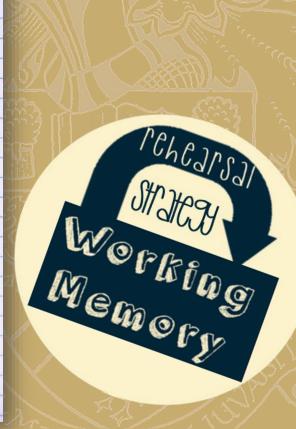
who decide the verdict





Knowledge Organisers are a really effective way of encouraging students to check and edit their work before handing it in.









Write 4 key titles from the Knowledge Organiser on a piece of paper.

Exercise 1 Use a timer and see how much they can remember about that topic in that time.

Exercise 2 No timer this time, but write down oneword questions: "How?" "So?" "Why?" "When?" "Result?" They have to respond in writing.

Exercise 3 if they seem really confident, encourage evaluation by writing: "Convince me!", or "Prove it!"



Pride Class system  $\overline{LYMM}$ HIGH SCHOOL Chartened streets Power rehearsal Strategy Working Memory



Class system London by William Blake





Class system London by William Blake

Why? How?



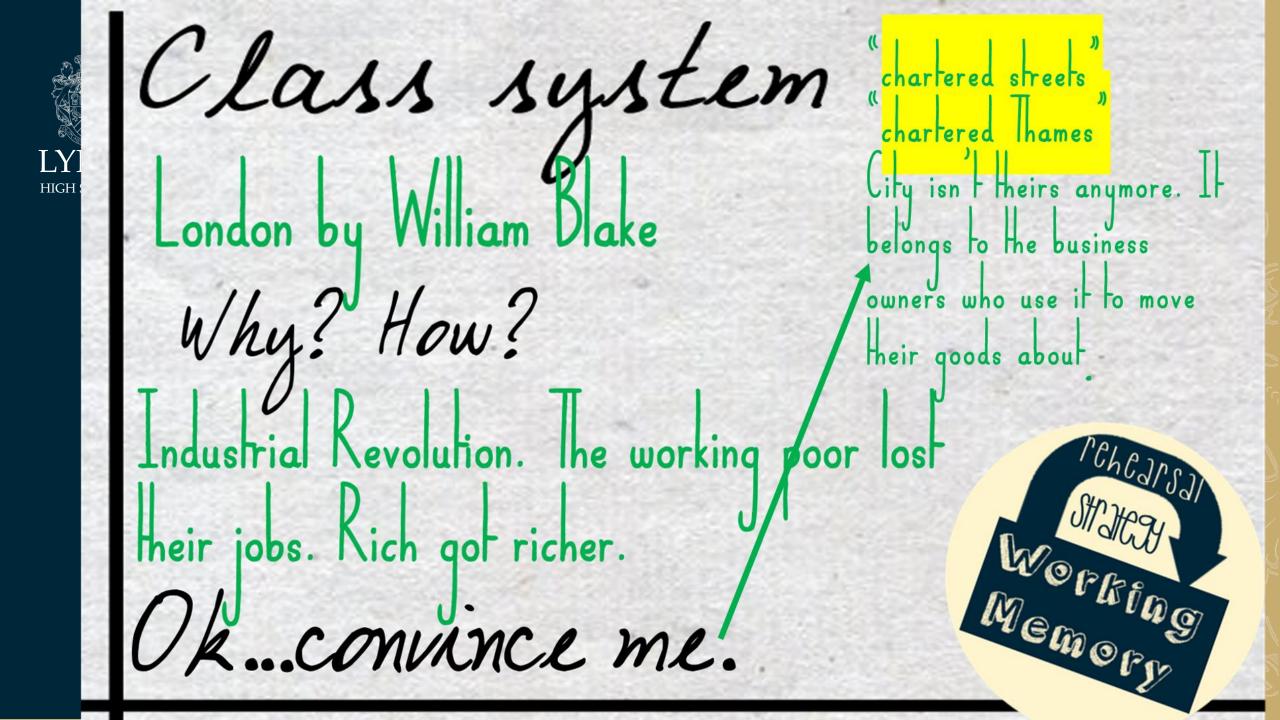


Class system London by William Blake Why? How? Industrial Revolution. The working poor lost heir jobs. Rich got richer.





Class system London by William Blake Why? How? Industrial Revolution. The working poor lost rchcjrsj heir jobs. Rich got richer. Working Memory Ok. convince me.





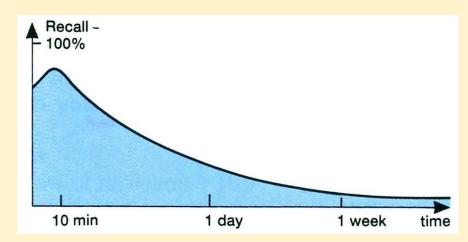
## **EFFECTIVE RETRIEVAL**



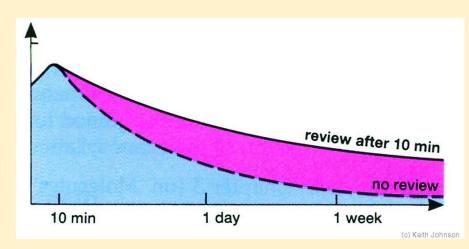


## LEARNING EFFICIENCY

### RE-REVISING AND REVIEWING INFORMATION HELPS MAKE IT STICK



THIS GRAPH SHOWS HOW MUCH YOUR BRAIN CAN RECALL LATER ON

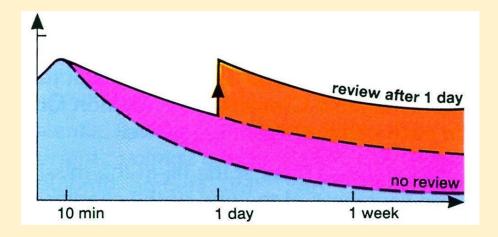


IF YOU RE-REVISE AFTER 10minutes then it falls more slowly

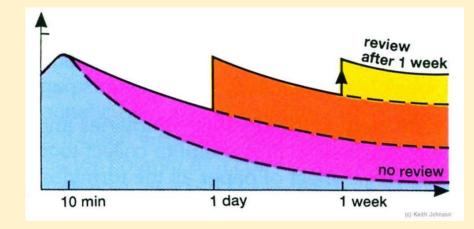


## LEARNING EFFICIENCY

### RE-REVISING AND REVIEWING INFORMATION HELPS MAKE IT STICK



#### IF YOU RE-REVISE <u>AGAIN</u>, AFTER 1 DAY THEN IT FALL EVEN MORE SLOWLY

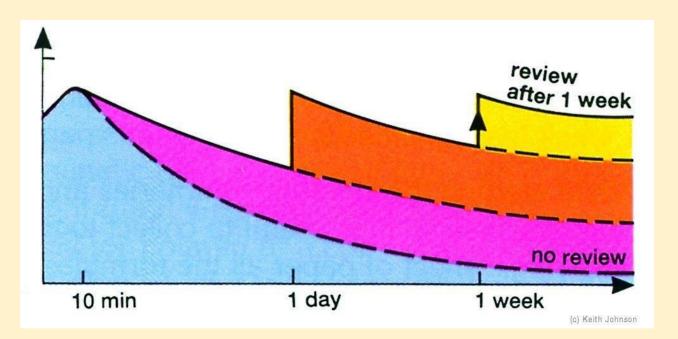


IF YOU REVIEW AFTER ONE WEEK, IT FALLS EVEN MORE SLOWLY



## LEARNING EFFICIENCY

### RE-REVISING AND REVIEWING INFORMATION HELPS MAKE IT STICK



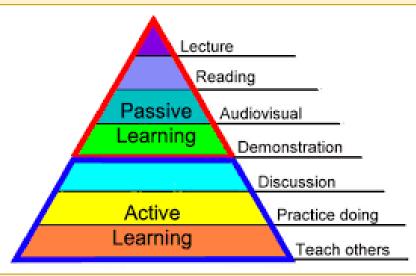


## **SPACED REVISION**



### EVIDENCE BASED STRATEGY THAT INVOLVES FOUR STAGES, THESE REPEAT OVER A PERIOD OF TIME

1.REVIEW A TOPIC2.TRANSFORMATION TASK3.PRACTISE TESTING4.EXAM QUESTIONS





## **SPACED REVISION**

### **STAGE 1 – REVIEW A TOPIC**

- For the first 20 minutes students should utilise any technique they are comfortable with to review the topic. This could be highlighting, making notes, creating flashcards or using post-its.
- Often, they might stop after this and think 'my revision is done!'. But no, this is just the start of an effective learning technique.







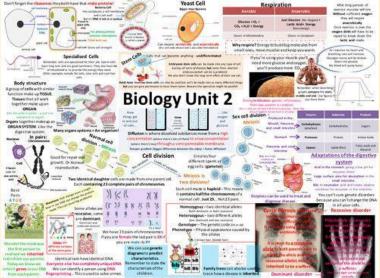
## SPACED REVISION

**STAGE 2 –** TRANSFORMATION TASK

This is building on Stage 1.

 Here the students need to transform the notes or highlighting that they have from Stage 1 into something different. This could be a mind map, a drawing, a song, a poem.

 By doing this they will have to be thinking 'how' am I going to show this content in a different form and 'why' does each piece belong.





## SPACED REVISION Stage 2 – Transformation Task

Create	Transform a topic into a cartoon strip or storyboard; Create a song or poem etc. Produce a revision guide including key points and activities	
Evaluate	Create a table of strengths and weaknesses for a topic Write a paragraph on whether you agree with something associated with your topic	
Analysis	Create a mind map showing links and connections Create a flow diagram showing links and connections	
Apply	Divide Divide information Make associations Make associations Make associations Make associations Make	
Understand	Pick out 5 key points about a topic and explain them Verbally explain key terms to someone	
Remember	Write down a topic in 10 bullet points Create flashcards	



## **SPACED REVISION Stage 3** – Practice Testing

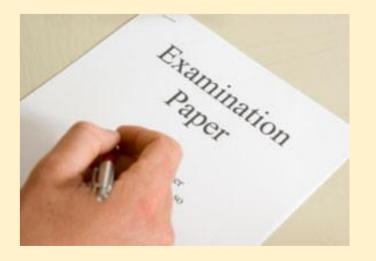
With a friend, family member or one of the many websites
online that have relevant quizzes –students should test themselves on the area that they have reviewed





## **SPACED REVISION Stage 4** – Exam Questions

Finally, students complete an exam question or questions on the area they have reviewed and mark this themselves using a mark scheme or ask their teacher to mark it











# **OTASSOMAI**

The Learning Program





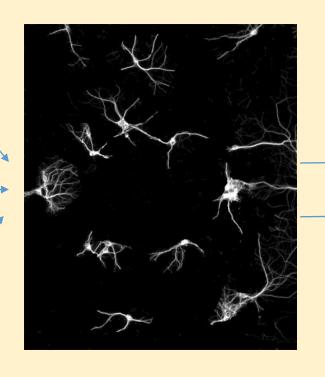
### **ATTENDANCE MATTERS**

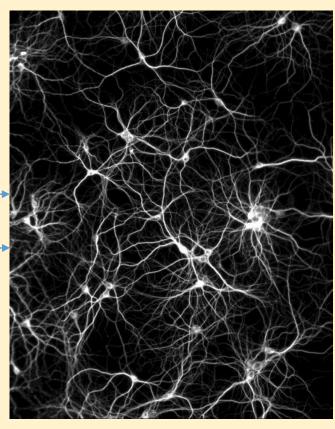
The more time students spend in school the more likely they are to succeed.





HAVE A GROWTH MIND-SET 'People are made, not born' Learning helps our neurons GROW





The more we learn, the more connections they make



## HOW STUDENTS THINK MAKES ALL THE DIFFERENCE

Growth Mind-set	Fixed Mind-set
You know you can develop intelligence	You think your intelligence is fixed
You enjoy challenge and set ambitious goals	You avoid challenging goals
You keep going when it's tough	You give up
You give 100%	You don't think you should try
You take inspiration from others	You feel threatened by the success of others



### **KEEPING THEIR SPIRITS UP!**





## **KEEPING THEIR SPIRITS UP!**

## 1<sup>ST</sup> DECEMBER •

### Top Tip..

Time management - produce a timetable for revision and stick to it!

Don't leave everything to the last minute - you can't revise the entire curriculum in one night. So plan ahead to avoid a last-minute panic





## "STRIVE FOR EXCELLENCE AND SUCCESS WILL FOLLOW" Thank you and have a safe journey home

Please visit the website for additional techniques and top tips

