Year 11
Prepare to Perform
2021

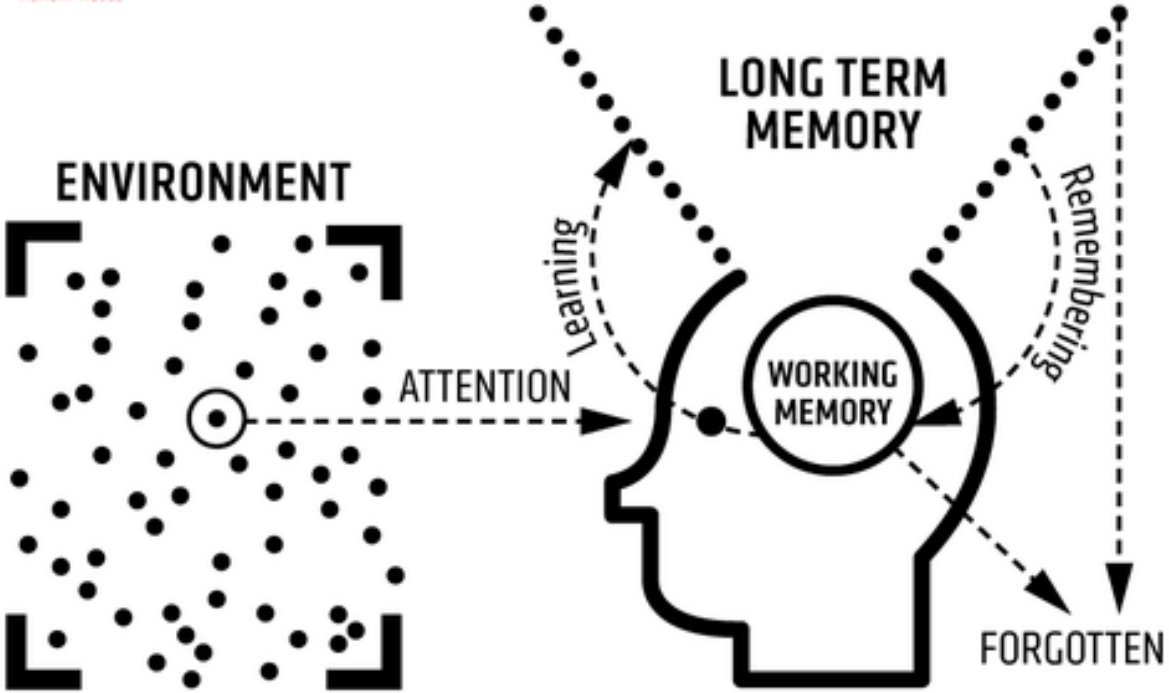
EAST LEAKE
ACADEMY

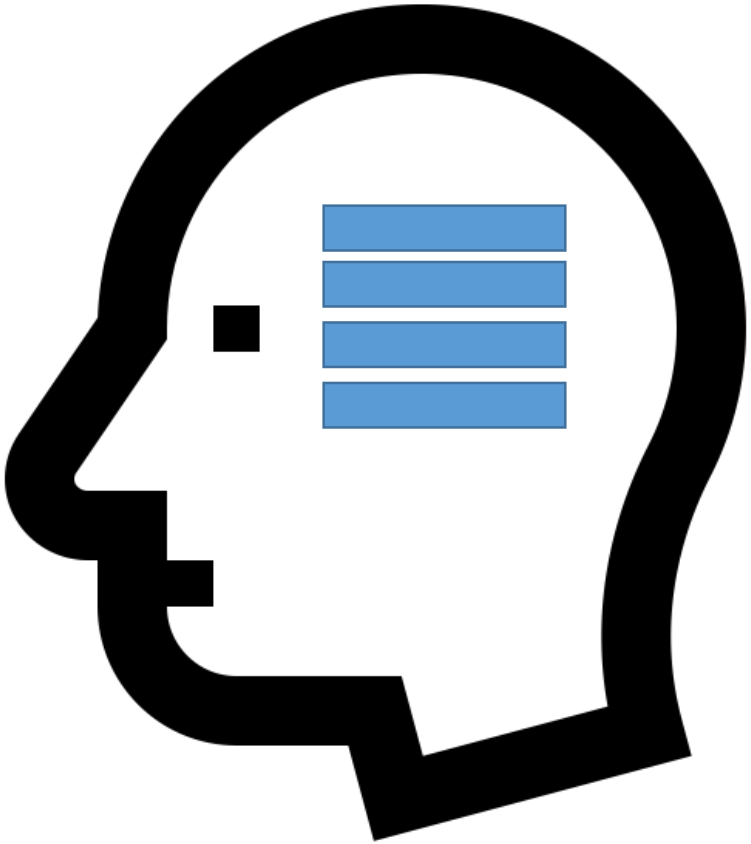
Why are we here today?

- **To provide a brief understanding of how students learn**
- **To provide ideas to support revision and self-learning**

OLI CAV
OLIVER CAVIGLIOLI
@olicav
olicav.com

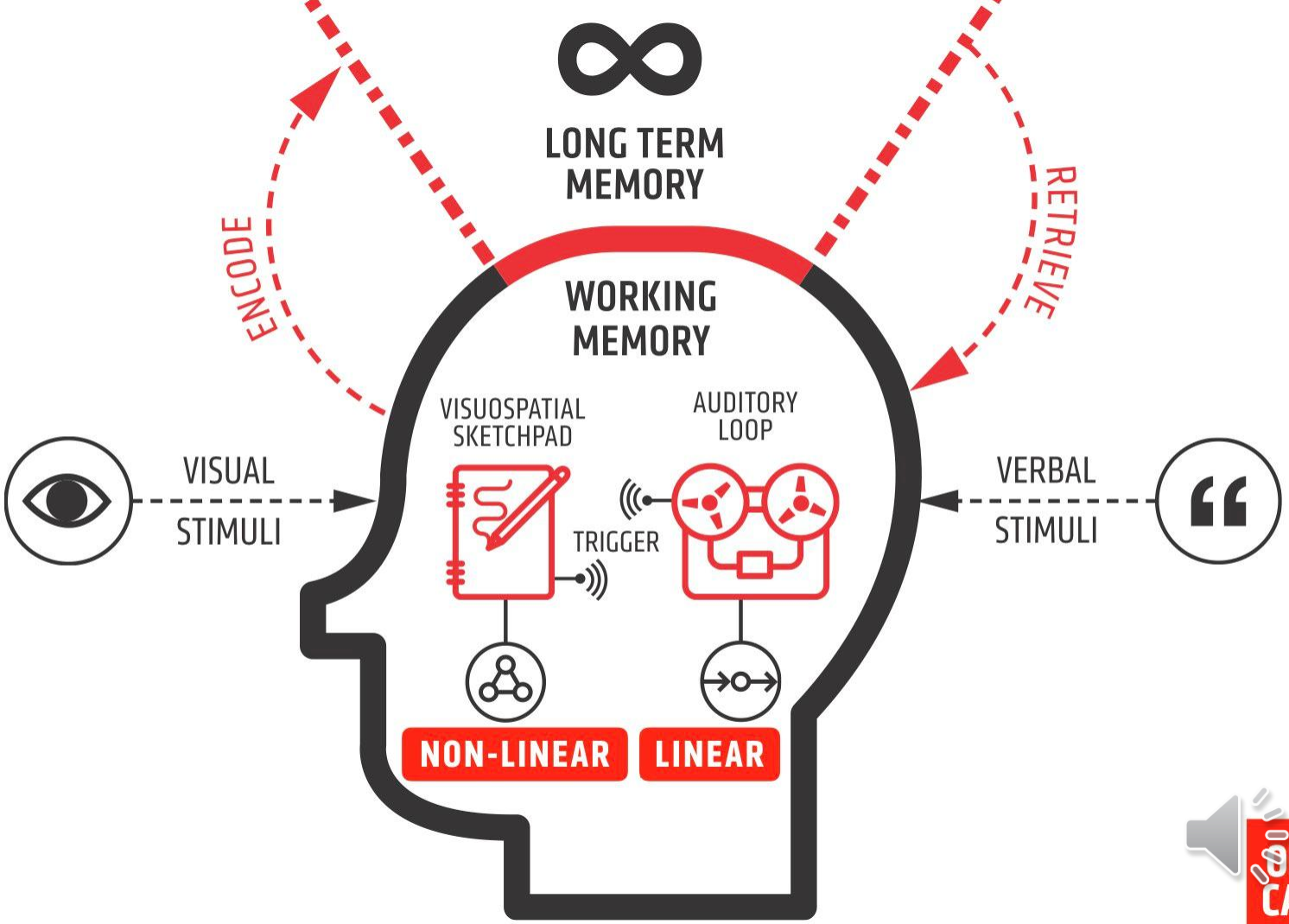
WILLINGHAM'S SIMPLE MEMORY MODEL



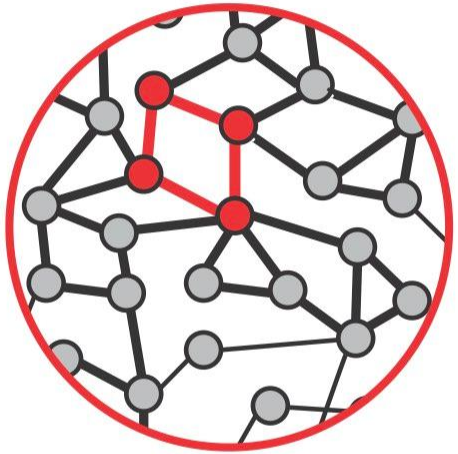


Created by Arthur Shlain
from Noun Project

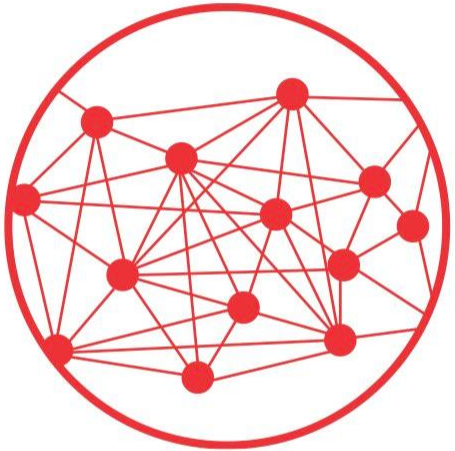
DUAL CODING THEORY | PAIVIO



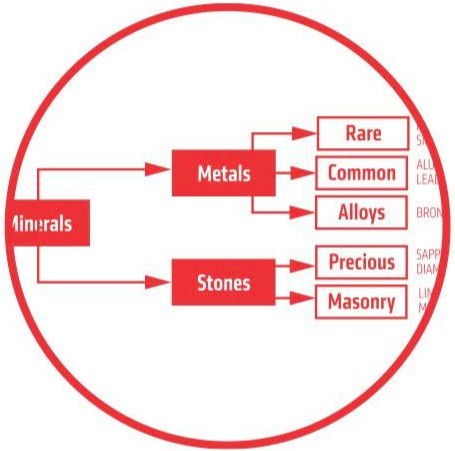
SCHEMA AREN'T LINEAR



EFRAT FURST, 2018



DAVID DIDAU, 2018



BOWER et al, 1969

Resources Available

For each student:

Six strategies for learning

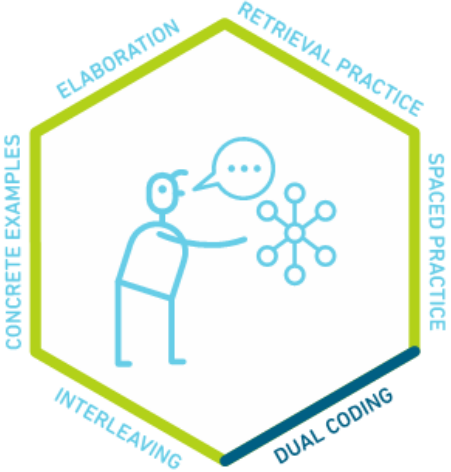
Six Strategies for Effective Learning

www.learningscientists.org

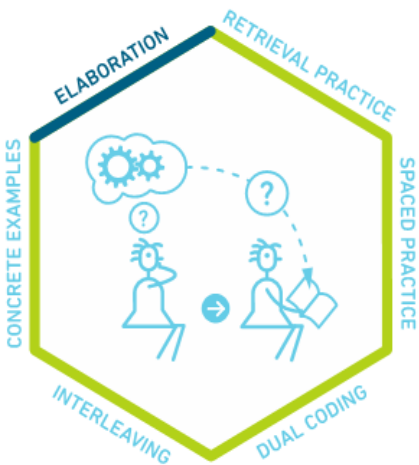
CC BY NC ND

In this series, we provide information so students can learn how to study using..

All of these strategies have supporting evidence from cognitive psychology. For each strategy, we explain how to do it, some points to consider, and where to find more information.


ELABORATION
RETRIEVAL PRACTICE
CONCRETE EXAMPLES
SPACED PRACTICE
INTERLEAVING
DUAL CODING

ELABORATION
RETRIEVAL PRACTICE
CONCRETE EXAMPLES
SPACED PRACTICE
eg
MY FOLDER
INTERLEAVING
DUAL CODING


ELABORATION
RETRIEVAL PRACTICE
CONCRETE EXAMPLES
SPACED PRACTICE
INTERLEAVING
DUAL CODING

ELABORATION
RETRIEVAL PRACTICE
CONCRETE EXAMPLES
SPACED PRACTICE
ACB CBA BCA
TOPICS
INTERLEAVING
DUAL CODING

ELABORATION
RETRIEVAL PRACTICE
CONCRETE EXAMPLES
SPACED PRACTICE
OR
WRITE
SKETCH
INTERLEAVING
DUAL CODING

ELABORATION
RETRIEVAL PRACTICE
CONCRETE EXAMPLES
SPACED PRACTICE
SPACING
2
1
3
TESTING
SKETCHING
INTERLEAVING
DUAL CODING

GENERATIVE LEARNING

1. Summary
2. Mapping
3. Drawing
4. Imagining
5. Self-testing
6. Self-explaining

Flash Cards

Using flashcards

- Using flashcards is a repetition strategy
- They are a simple ‘cue’ on the front and an ‘answer’ on the back
- Flashcards engage “active recall”

Question

In an atom, the number of protons is equal to which other sub atomic particle?

Electron

Question

What produced the oxygen that is now in the atmosphere?

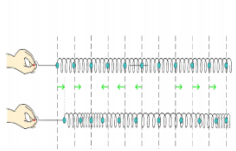
Algae and plants

Question

What are the properties and characteristics of a longitudinal wave?

Vibrations are parallel to the direction of energy transfer. Made up of compressions and rarefactions.

Examples include sound and shock waves.



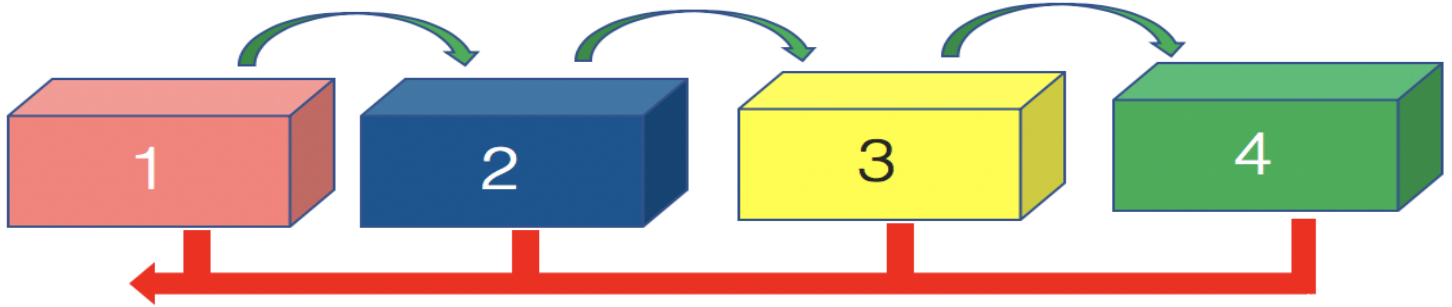
Leitner System – The Method

All flash cards start off in Box/Stack 1. As you review the cards, each card you answer correctly goes into Box 2.

If you give the wrong answer the card stays in box 1.

When you review cards in Box 2, if you still get it right you move the card to box 3 and so on until all cards are in Box 4.

If you get a card wrong in any box, it goes back to Box 1.



Using metacognition to help us revise

Metacognition

You need to understand how to learn something as well as what to learn

Metacognition **helps you to revise effectively at home**, when you don't have teachers to help you or tell you what to do.

Independent revision is the **key to being successful** in assessments or exams.

Golden rule of memory:

If it isn't difficult, it isn't working

4 types of learners

Level 1: You don't really understand how to revise and so don't know where to start.

Level 2: You know what activities you like to complete (e.g. mindmaps) but you're not sure why, and you often stick to topics you are comfortable with.

Y11: →

⭐ **Level 3:** You can plan a revision strategy based on what you need to revise but you struggle to change that strategy if something's not working.

⭐⭐ **Level 4:** You can identify what you need to revise. You know when you have learnt enough to move on, when you need to go back a step, or change the activity.

Challenge: Add a sentence to your summary sheet explaining which type of learning you think you are and which you want to be. Make sure you say why.

What could I change for next time?

	Yes	No
Did you complete this work to the best of your ability?		
Did you make an effort to think about the facts you were writing down, and try to remember them?		
Would you feel confident answering a question on this in an assessment?		
Do you think you would have made more progress if the activities were different? If yes, please give details of the activity and what you might replace it with.		

My revision was ✔ successful ✔ not successful

In the next revision session I will ….

Metacognition:
learning how to revise as well as what to revise

There are **4 types of learners**. I am a Level …….. learner because …

I will aim to be a Level …….... learner by Year 11.

Level 1: Don't know where to start with revision	Level 2: Know what revision you like to do, but not sure why	**Level 3:** Can pick revision activities yourself	**Level 4:** Can see what is or isn't working and change

You do this by understanding what activities are for and how they can help you make progress.

Types of activities

Step 1: Retrieval practice: Go over what you to know to see what you need to revise. E.g. Quiz

Step 2: Facts: Learn the key information.
E.g. mindmap, short notes

Step 3: Explanation: Explain why the information matters for the question you're answering.
E.g. summaries, essay plans

Step 4: Assess/evaluate: Have your strategies worked? E.g. mini quiz or evaluation sheet

Metacognition Phases

Self-question throughout the task.

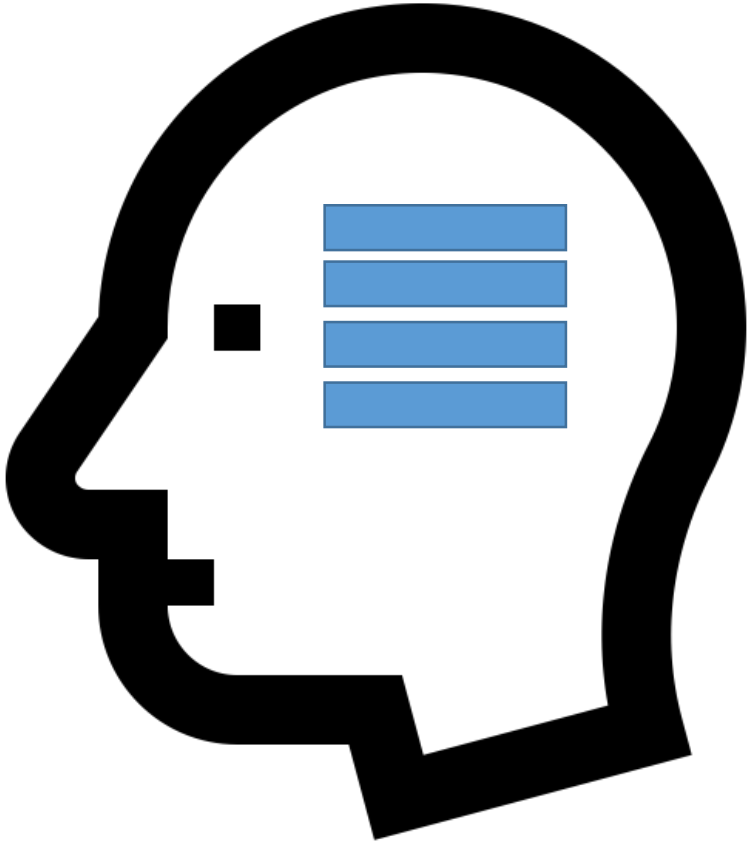
What have I been asked to do?
How am I going to approach this?
What strategies am I going to use?
What's going to be tricky?
What do I need to do to overcome any difficulties?
Can I use any strategies that I have used before?

How is this going?
Is my approach working?
Do I need to change anything?
Do I need to think differently?

How did I do?
What went well?
What didn't go well?
What shall I do next time?
What have I learnt from doing this task?

Five step study plan ...

1. Create a list - what do you need to know?
2. Timetable a spaced schedule.
3. Use effective & evidence informed study strategies.
4. Identify the gaps in your knowledge.
5. Close the gaps. Refer back to step 3.



Created by Arthur Shlain
from Noun Project