

Working Memory Strategies

Working memory is known to underlie nearly every aspect of academic learning. Here are some general strategies to support working memory. It is important that you teach only one memory strategy at a time, until the student is familiar with the idea of strategy use. Encourage the student to monitor and evaluate their strategy use and to attribute their success to strategy use. Encourage generalisation by discussing applications of the strategy and practicing the strategy with different materials and under different situations.

Verbal Rehearsal

Name items after it is presented/said by instructor. Increase the difficulty of the task by increasing the number of items.

E.g. "I went to the shops and I bought..."

Elaborative Rehearsal

Associate new information with related prior knowledge. Analyze the physical, sensory or semantic features of an item. The more you elaborate an item, the better it is remembered.

E.g. Stalactites hang from the ceiling, tights hang down when you hold them up.

Semantic Rehearsal

Create a brief sentence using the to-be-remembered word. Create a story with all of the stimulus words embedded sequentially.

E.g. "The boy used a **carrot** for the nose, two **raisins** for eyes and a juicy red **strawberry** to decorate the **pumpkins'** mouth." (shopping list: carrot, raisins, strawberries, pumpkin)

Chunking

Pairing, clustering or grouping units of information that initially seem a random sequence. This strategy may be particularly useful for remembering important dates or telephone numbers.

E.g. These eleven unrelated digits may be organised into four chunks of meaningful information

0	1	1	8	9	4	6	2	7	8	3
0118			946		27		83			

Paraphrasing/defining in own words

This combines rehearsal and chunking strategies. Restate information into their own words requires the ability to reorganise and condense a large amount of linguistic information into smaller, well-integrated and more personally meaningful units. Begin with short, single sentences and emphasises that students should use their own words instead of repeating what they hear.

E.g. "paraphrase"

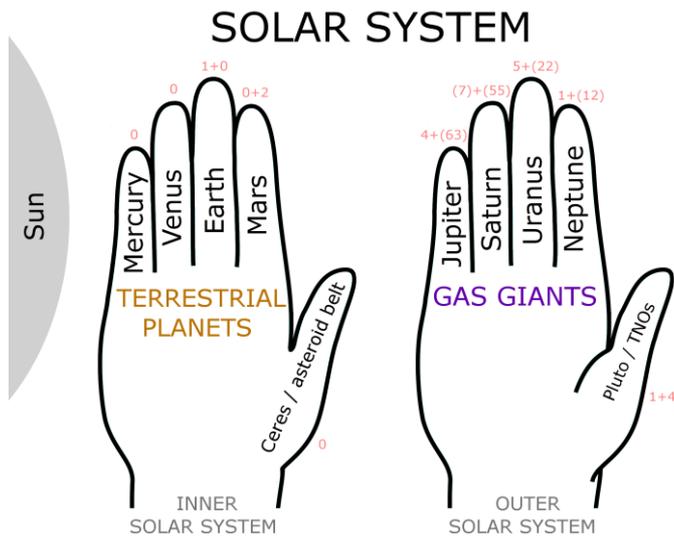
Dictionary definition: "express the meaning of (something written or spoken) using different words, especially to achieve greater clarity"

Personal definition: "to put something into your own words"

Mnemonics

This strategy is particularly helpful for individuals with limited verbal working memory, such as those with language and literacy disabilities.

E.g. visual mnemonic



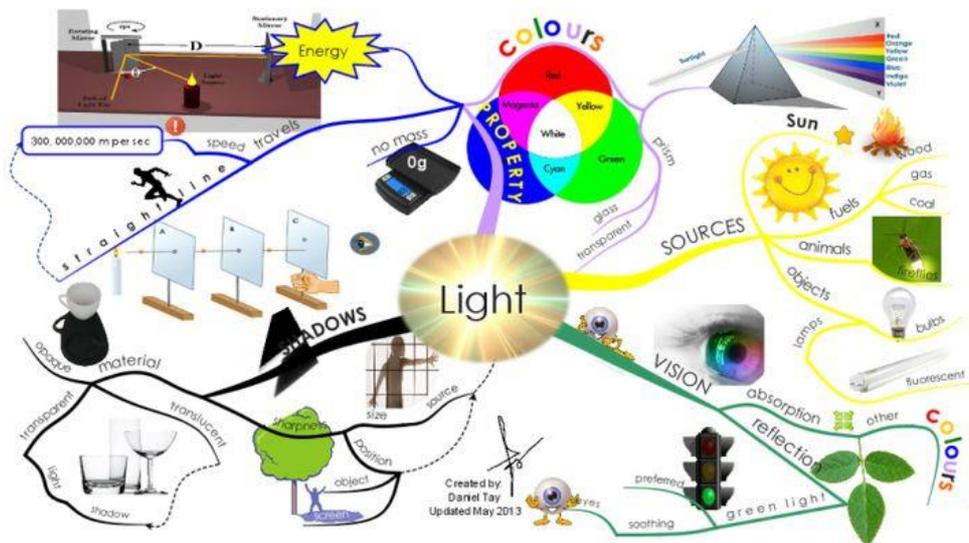
E.g. verbal mnemonic

My Mercury
Very Venus
Easy Earth
Method Mars
Just Jupiter
Speeds Saturn
Up Uranus
Naming Neptune
Planets Pluto

Dual Encoding

Provision of **both** verbal and visual information aids information to be processed and retained.

E.g. individual word maps, written instructions and verbal instructions, diagrams



Metacognition

Encourage the individual to recognise when they need help and provide a strategy to obtain help.

E.g. putting up hand and asking the teacher/writing the their problem down.

Strategy user checklist

This informal checklist provides a focus when monitoring and evaluating working memory strategies.

A good strategy user...

- possesses numerous strategies for accomplishing a variety of working memory goals
- is aware of his or her memory strengths and weaknesses
- known when and where memory strategies are applicable
- knows how to modify techniques for specific situations and materials
- can coordinate a number of goal-specific strategies
- knows how to select a memory strategy that will be effective for the task at hand
- monitors strategy use and task performance to determine if the goal is being accomplished
- attributes successful performance to strategic memory processing
- has developed memory strategies that are efficient, automatic and flexible
- has a repertoire of several memory strategies that can enhance working memory performance