

Working Memory Strategies for Home & School

The key to managing working memory is to reduce the cognitive load by modifying how content is presented in quantity, pacing and considering support and environmental strategies as follows:

Reduce the memory load

- Break tasks into smaller chunks. One task at a time is best, if possible.
- Reduce the amount of material the student is expected to complete.
- Keep new information or instructions brief and to the point. Repeat in concise manner for the student as needed.
- Simplify the amount of mental processing required by providing several oral “clues” for a problem and writing key words (or pictures) for each clue on the board or interactive whiteboard. This way the student doesn’t have to hold all of the information in mind at once.
- Increase the meaningfulness of the material by providing examples they can relate to – find ways to make more abstract tasks more concrete.
- Provide advance notice of topics to be covered so that it may be reviewed prior to lessons – this way it is more familiar (student should simply read and perhaps discuss with a parent or tutor prior to those lessons for the week).
- Develop routines, such as specific procedures for turning in completed assignments. Once a routine is practiced repeatedly, it becomes automatic and reduces the working memory demand.



Repeat and review

- Be prepared to repeat information.
- Use visual reminders/schedules of the steps needed to complete a task.
- Provide opportunities to repeat the task.
- Have student practice new skills or information in short sessions over the course of the day rather than in one long session – this is far more effective according to research.

Encourage use of memory aids

- Provide instructions in written form – could be a handout, whiteboard, or simply a sticky note, an email or document in the cloud.
- Provide a key word outline to refer to while you are teaching.
- Use lists of reminders to help with organisation using icons/pictures – icons are much more readily remembered than words e.g. think of McDonald’s – what comes to mind?
- Use graphic organisers to teach new concepts and information. When the student can picture how the ideas are interrelated, they can be stored and retrieved more easily.
- Use rhymes, songs, movements and patterns. Music and physical routines linked to fact learning can help students memorize faster and act as a cue for retrieving specific information



Pause, paraphrase, summarise, and allow time

- Stop at least two times per lesson and request a quick summary from students – “what have we learned so far?”, followed by quick notes on the board. Research indicates that at least 40% of total learning time needs to be spent reviewing new material.
- Request student to paraphrase or have another student paraphrase verbally delivered directions. Research has repeatedly shown that children are more likely to “hear” and “remember” if they hear their own voice or a peer’s voice.
- Allow time for rehearsal and processing. These students benefit from advance warning that they will be asked a question.
- Avoid open-ended questions – open ended questions increase the cognitive load greatly!

Get physical

- Active participation with the material e.g. repeatedly hearing, seeing, and moving it, holds the information in working memory so it can move to long-term memory.
- Wherever possible, use games, drama and art to reinforce concepts –therapy specific games can be introduced to further this idea.

