Span Ladder

How much can you hold in your head at once?

GRADE 8 | MEMORY | SHORT-TERM SPAN | WORKING MEMORY

THE STRATEGY · WORK FROM THE END

Reversing a list means holding it and changing it at the same time, which is what working memory actually is. Try picturing the digits written in a row and reading them right to left rather than replaying the sound of them.

How to use this sheet

1. **Work with a parent or teacher.** One person reads, one person answers. The reader keeps this sheet; the student does not look at it.
2. **Read at one item per second.** Steady, flat voice. No grouping, no pauses — the chunking is the student's job, not the reader's.
3. **Two attempts at every rung.** Pass a rung by getting either attempt completely correct, in order. Then climb to the next.
4. **Stop after two failed rungs in a row.** That rung is today's ceiling. Write it on the ladder at the back and stop there.

What is on each page

Page 2 Digit span — forwards and backwards

Page 3 Word span and sentence span

Page 4 The ladder, your personal best, and two questions to talk about

Print once, slip into a plastic sleeve and write on it with a dry-erase marker — this sheet is built to be repeated every few weeks, not used once.

Part 1 — Digit span

Reader's page. The student has two attempts at every rung — tick the rung if either attempt is repeated perfectly, in the right order.

The rung number is how many digits are in the row.
Rung 7 means a seven-digit row. Climbing one rung means holding one more digit.

1a — Forwards

Read the row aloud. The student repeats it in the same order.

RUNG	ATTEMPT 1	ATTEMPT 2	PASS
5	3 9 6 7 3	7 8 1 9 3	☐
6	1 7 4 6 9 2	8 4 6 5 9 6	☐
7	7 8 5 4 6 5 3	3 2 5 6 9 4 8	☐
8	5 6 4 1 6 5 9 8	1 7 2 8 2 9 3 4	☐
9	1 6 1 9 7 6 1 7 3	4 1 7 5 1 2 6 1 8	☐

1b — Backwards

Same rules, but the student repeats the digits in reverse order. Backwards is the harder, more useful test — it is working memory rather than simple storage, so expect it to sit two rungs lower.

RUNG	ATTEMPT 1	ATTEMPT 2	PASS
3	4 3 1	9 2 9	☐
4	7 8 5 4	3 5 6 5	☐
5	4 9 1 7 6	3 9 3 7 3	☐
6	2 7 4 3 8 9	6 1 3 5 9 5	☐
7	2 1 7 1 9 2 1	3 5 6 9 5 3 7	☐

HIGHEST RUNG PASSED TODAY

Forwards: _____ Backwards: _____ Date: _____

Part 2 — Word span

Words are harder than digits: there are far more of them to choose from. The strategy changes too — link the words into a quick mental picture or a silly sentence rather than chunking them. The rung number is how many words are in the list.

2a — Words in order

Each rung gives two different lists. Read Attempt 1; if the student does not repeat it perfectly, read Attempt 2. Either one correct passes the rung. Order counts.

RUNG		WORD LISTS	PASS
3	ATTEMPT 1	driftwood · obsidian · hinterland	☐
	ATTEMPT 2	lattice · ravelin · isthmus	
4	ATTEMPT 1	sediment · ingot · hawser · filament	☐
	ATTEMPT 2	mortar · nebula · manifold · lintel	
5	ATTEMPT 1	wainscot · nebula · furlong · obsidian · manifold	☐
	ATTEMPT 2	armature · dredger · truss · mortar · lattice	
6	ATTEMPT 1	dredger · nacelle · gudgeon · catacomb · joist · mortar	☐
	ATTEMPT 2	embankment · quarantine · parapet · quern · xylophone · obsidian	
7	ATTEMPT 1	furlong · yardarm · lattice · nebula · dynamo · joist · embankment	☐
	ATTEMPT 2	armature · gudgeon · rampart · xylophone · flagstone · filament · manifold	

Part 3 — Sentence span

Read each sentence once at normal speaking speed. The student repeats it word for word. One attempt per rung here, and the rung number is the step in difficulty, not a word count. This is the closest rung to real classroom listening — instructions, dictation and note-taking all sit here.

RUNG	SENTENCE	PASS
1	Antibiotic resistance now appears in hospitals on every continent.	☐
2	The trial showed a small improvement, though the sample was too limited to be conclusive.	☐
3	After the regulations changed, manufacturers were required to disclose every additive used in the production process.	☐
4	The judge noted that while the defendant had broken no written rule, the behaviour clearly contradicted the purpose the regulations were meant to serve.	☐

HIGHEST RUNG PASSED TODAY

Words: _____ Sentences: _____ Date: _____

Your ladder

Colour in the rung you reached today, in a different colour each time you do this sheet. Come back in three weeks — the point is the climb, not the number.

RUNG	ATTEMPT 1	ATTEMPT 2	ATTEMPT 3	ATTEMPT 4
9				
8				
7				
6				
5				
4				
3				

PERSONAL BEST

Rung _____ on _____

Where this shows up

- Where did you feel your memory run out — was it holding the items, or saying them back?
- Name one thing this week where you have to hold something and change it at the same time: mental arithmetic, directions in reverse, editing a sentence as you read it.

A span score is a snapshot of one skill on one day. It is not an assessment, a diagnosis or a measure of how clever anyone is. If you are worried about memory or attention, speak to a professional.