

Dyslexia & Working Memory

Dyslexia primarily affects the skills involved in accurate and fluent word reading and spelling.

Characteristic features of dyslexia are difficulties in phonological awareness, **verbal memory**, and verbal processing speed.

Dyslexia & Working Memory

p12 copying activity

Working Memory



The ability to temporarily hold and manipulate information for cognitive tasks performed in daily life.



Working memory holds information for a few seconds. It is temporary.



Working memory can hold only five to seven items at a time. It has a small capacity.



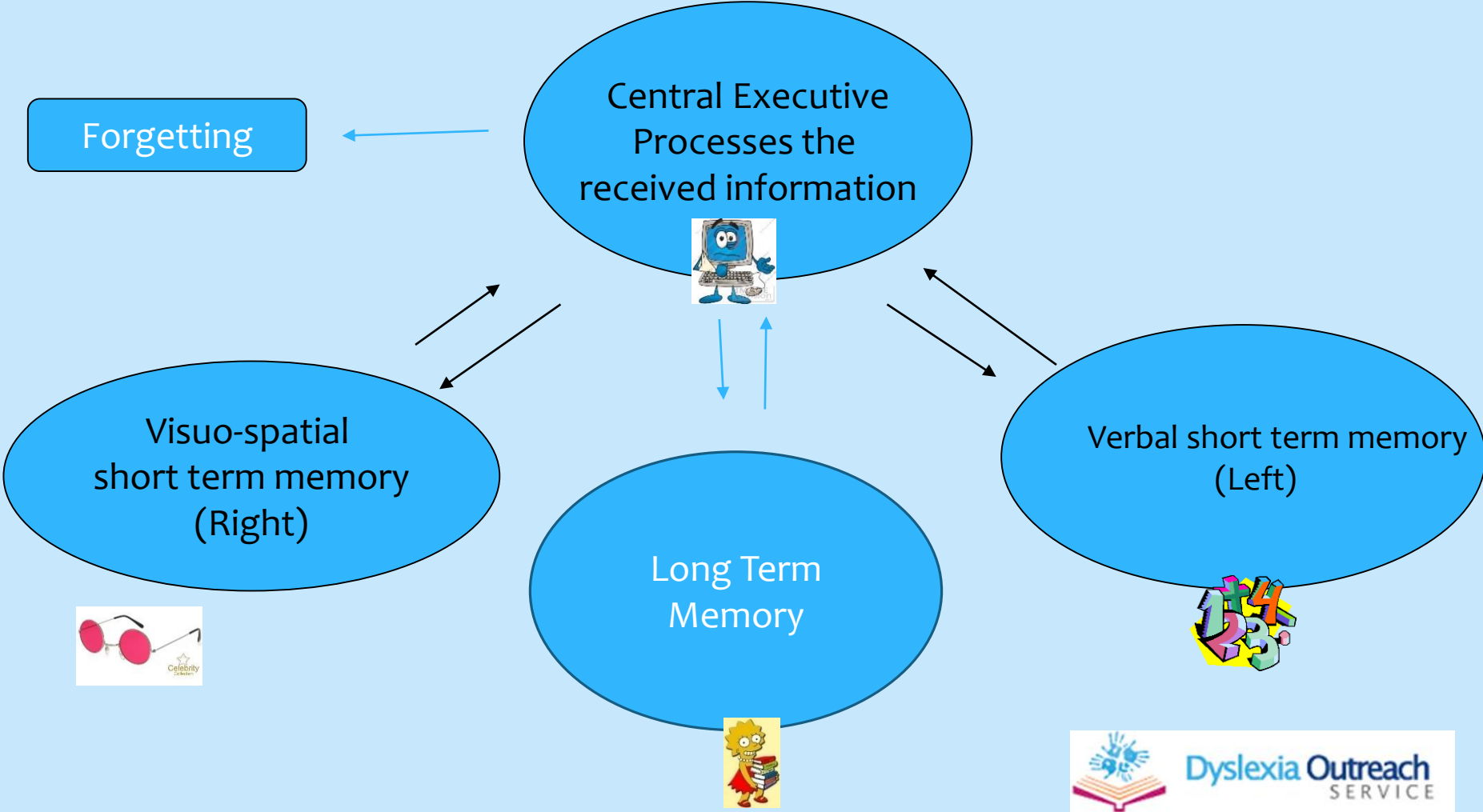
Working memory holds and manipulates information.



Working memory depends on control of attention and mental effort.



Model of Short Term Working Memory



Working Memory

Working memory capacity
has more impact on learning
than ability.

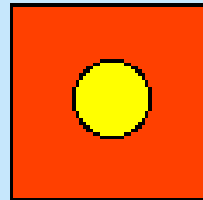
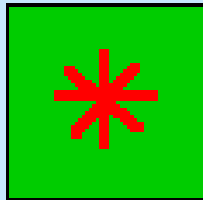
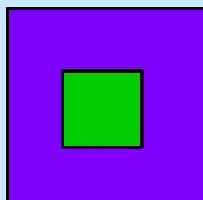
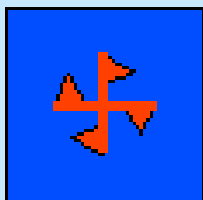
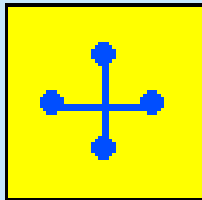
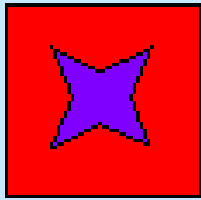
Working Memory – visual recognition

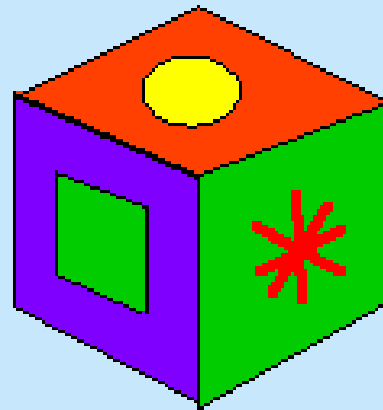
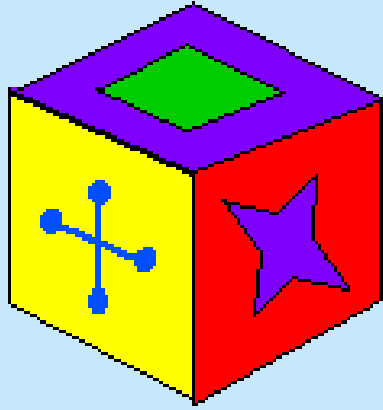
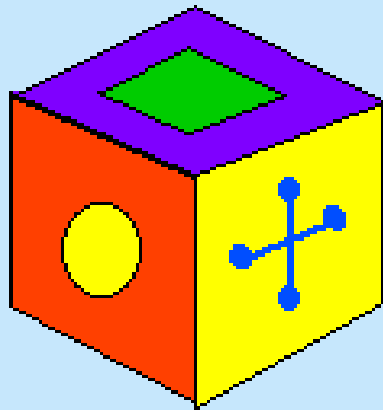
P13

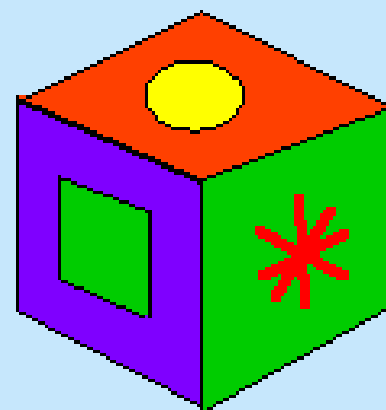
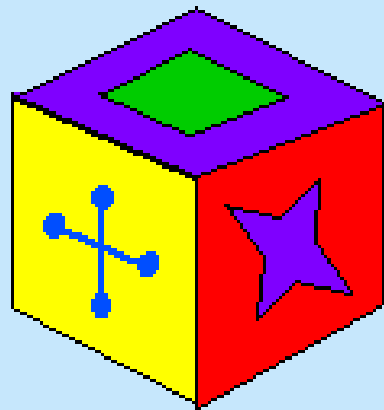
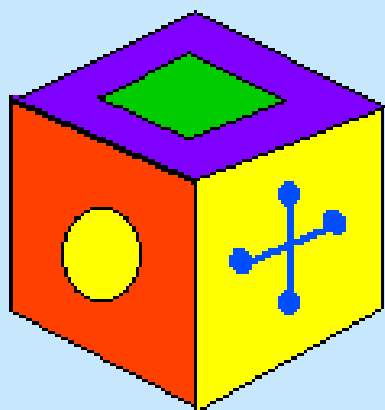
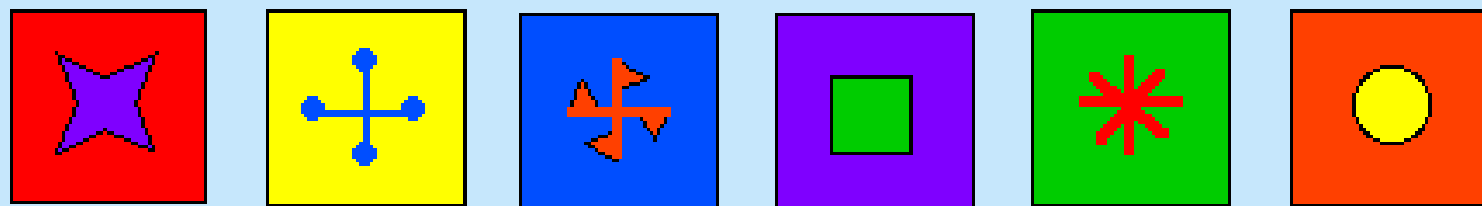
You have 1 minute to look at the following picture and remember as much as you can about it...



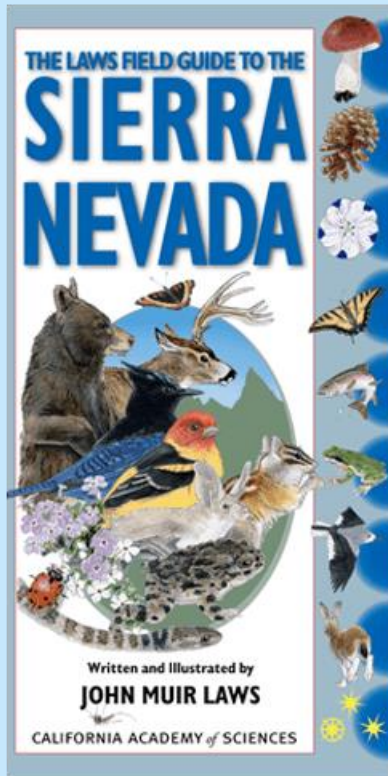
Working Memory – spatial manipulation







Dyslexic Advantage

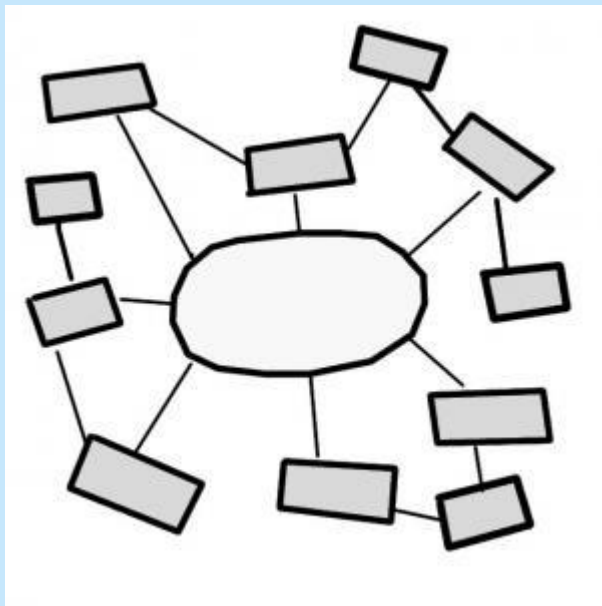
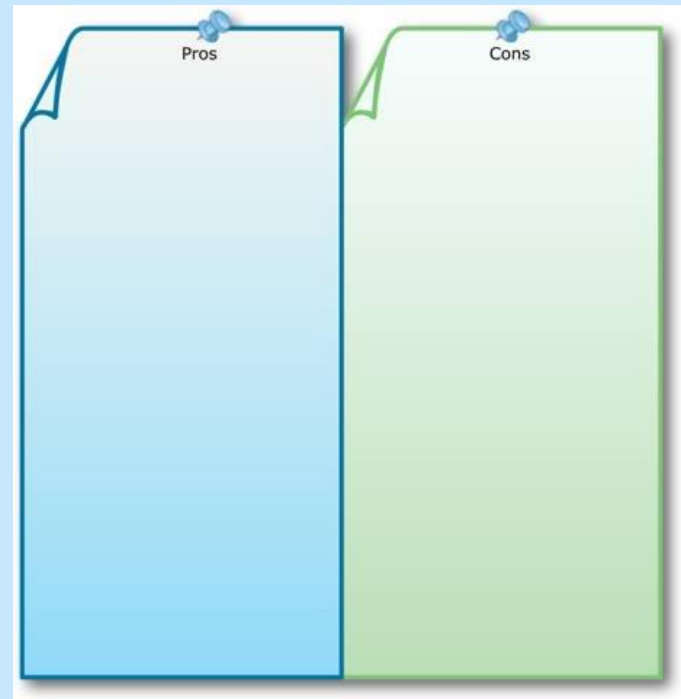


Jack Laws
Naturalist

Ideas for supporting visual strengths?

Ideas for supporting visual strengths

- * Mind maps
- * Working walls
- * Colour/ highlighters
- * Learning rivers/ story mountains
- * Memory aids such as flashcards
- * Vertical presentations often work better (e.g. timelines)
- * Flow charts
- * Post it planning
- * Writing frames



Dyslexia & Working Memory

p14 digit span activity

Working Memory Capacity

A quick guide for memory capacity at different ages

- 5 – 6 years: 2 instructions
- 7-9 years: 3 instructions
- 10 -12 years: 4 instructions
- 13 – 15 years: 5 instructions
- 16 – 29 years: 6 instructions

Stops increasing in our 30s

Information in working memory has a short duration of around 15 seconds

KEEP INFORMATION VISIBLE FOR LONGER

XNA

SAP

HDF

BIC

IAB

BCX

X

NASA

PHD

FBI

CIA

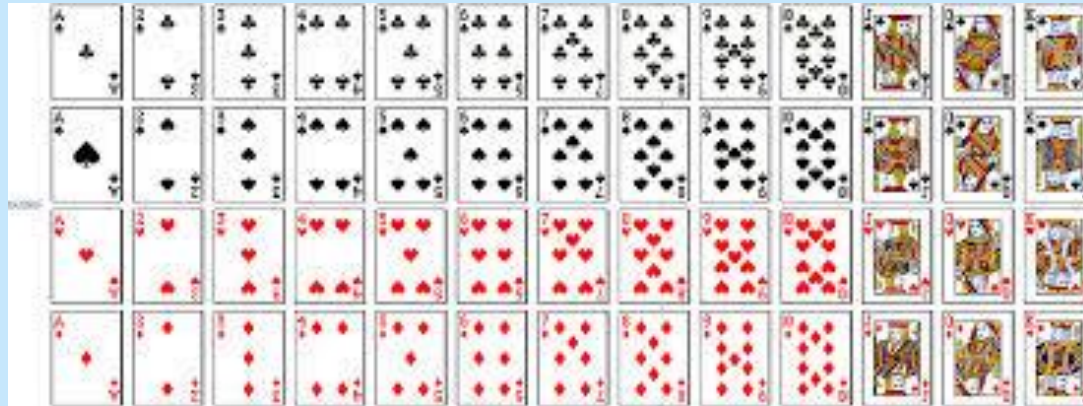
BBC

X

Dyslexia & Working Memory

p14 processing & storage activity

A dyslexic's brain....



Reduced working memory capacity – general strategies for the classroom

- * Be clear, concise & unambiguous
- * Deliver instructions in 1 or 2 chunks
- * Repeat sequences often
- * Allow for processing time
- * Ask for instructions to be repeated back to you
- * Minimise stress that can result from forgetting (give praise for asking)
- * Provide memory aids – mnemonics, calculator, topic literacy mat
- * Support with visual reference e.g. page number on board, highlight key parts in the text