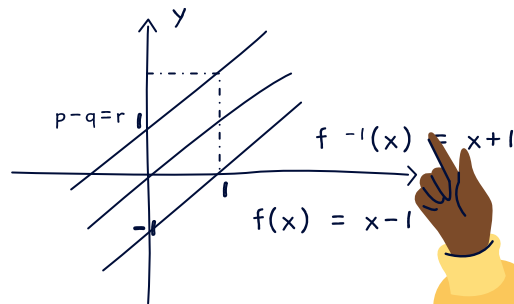


Sacred Heart Maths Family Night 2025

$$a \log b + a \log c = a \log (bc)$$

$$B = \begin{pmatrix} p & q \\ r & s \end{pmatrix}$$





Maths Curriculum includes 6 strands:

01

Number

02

Algebra

03

Measurement

04

Space

05

Statistics

06

Probability

(starting Level 3)

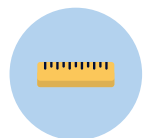
Proficiencies in Mathematics



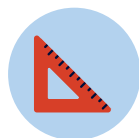
Problem-Solving



Reasoning

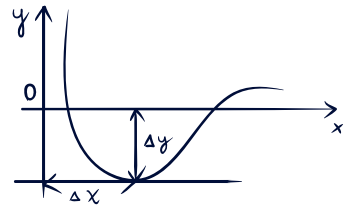


Fluency



Understanding

How can you support your child with Maths at home?



$$\begin{array}{c|c|c} x & & 0 \\ \hline y & 0 & -1 \end{array} \quad a(bxc)$$

$$\begin{aligned} f(x) &= x-1 \\ y &= x-1 \\ x &= y+1 \end{aligned}$$



Fluency

Students become fluent as they develop skills in:

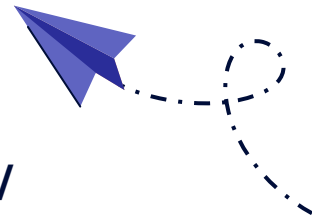
- choosing appropriate procedures
- **recalling factual knowledge and concepts with ease**
- carrying out procedures flexibly and accurately (3-6)

Students are fluent when they:

- calculate answers efficiently
- recognise robust ways of answering questions
- recall definitions and regularly use facts



Developmental stages for learning



	Level 1 / Progressing	Level 2 / Competent	Level 3 / Expert
Counting	Counting by 1s forwards and backwards	Counting by 2s, 5s, 10s. Counting from non zero starts.	Counting by 3s & 4s. Identify counting patterns (all)
Addition & Subtraction	Automatic recall of facts up to 5, then 10. Know small Doubles. Knowing number bonds	Automatic recall of facts up to 20. Doubles, near doubles. Knowing number bonds.	Bridging to the decade (ten), applying number bonds, using place value, flexible strategies.
Multiplication & Division	2s, 5s & 10s	3s, 4s & 11s Connect division to multiplication	6s, 7s, 8s, 9s & 12s Connect division to multiplication



Why use a games based approach?



Benefits :

- Engaging
- Repetitive
- Active learning
- Immediate feedback
- Adaptability & problem solving
- Social learning
- Reduce anxiety and encourage taking risks



How is this connected to the Science of Learning?

Retrieval Practice :

Retrieval practice is a learning strategy where students are actively recalling information. This improves their long term ability to retain the information learnt.

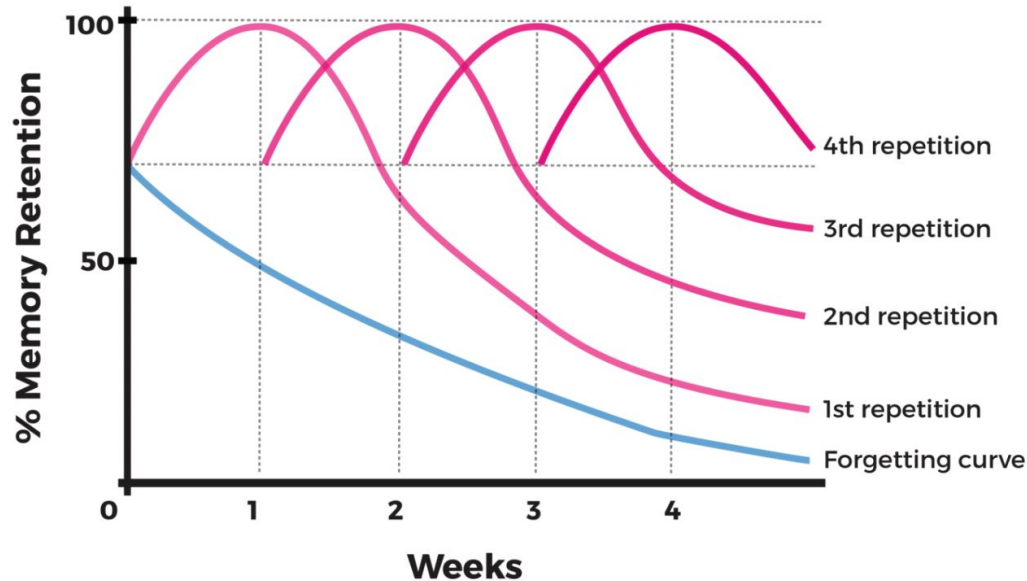
- Students are pulling info out of their long term memory
- Improving their complex thinking
- It assists a student's ability to transfer knowledge to new concepts
- Supports teachers to identify gaps using low stakes/no stakes (no pressure such as in a testing situation)



How is this connected to the Science of Learning?

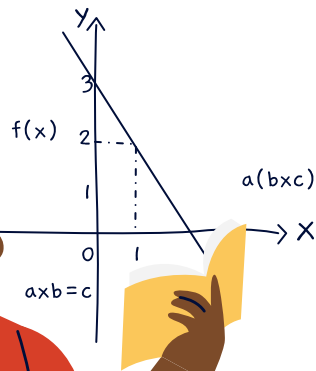
Curve of Forgetting

For newly learned information



Maths Games

$$\begin{aligned}f(x) &= x-1 \\y &= x-1 \\x &= y+1\end{aligned}$$



$$A = \begin{pmatrix} a & b \\ c & d \end{pmatrix} \quad B = \begin{pmatrix} p & q \\ r & s \end{pmatrix} \quad I = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$$





Supporting students to perform well in tests such as NAPLAN

- Read the question
- Understand what the question is asking
- Formulate an equation/plan or strategy
- Calculate accurately

Example Question from NAPLAN practice test

Example Question from NAPLAN practice test

+

01:42

Hours Mins

Hide time

Question 4 of 11

×

0:00 / 0:14

▶


🔊


●


Hudson sees 4 caterpillars at the park.


Order the caterpillars from the **shortest** to the **longest**.

Place the shortest caterpillar at the top.









Shortest	
•	
•	
Longest	

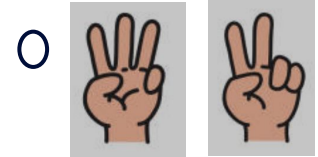
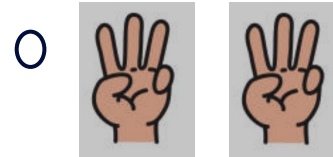
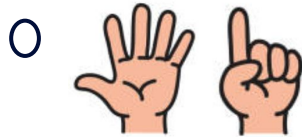
What type of questions do students need to answer?

A student made a number using 2 and 3 fingers.



Choose two other ways the student could make the same total the fingers show.

Select an answer



Tom had 26 balloons. He was given 9 more.

To work out the total balloons he drew this number line.

Place the numbers in the correct boxes to show how Tom worked out how many balloons he had.

36

26

35

+ 10

- 1



What type of questions do students need to answer?

The distance from Melbourne to Dehli is 7877 km.

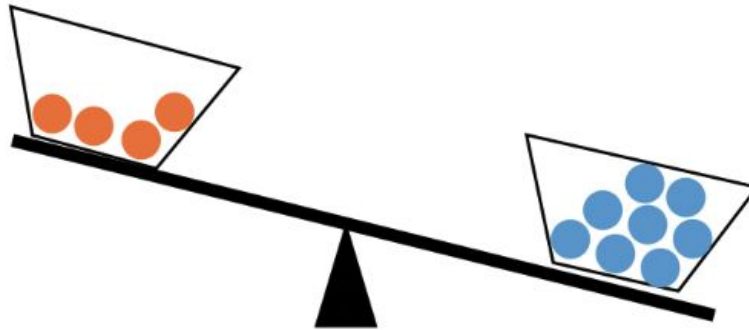
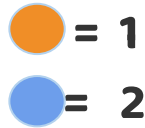
The distance from Melbourne to Beijing is 7985 km.

What is the difference between the distances?



What type of questions do students need to answer?

How many orange balls are needed to be added to balance the scale?



Select an answer

☐ 2

☐ 6

☐ 4

☐ 8

Questions

$$f(x) = x - 1$$

