

Mathematics

Information for Primary Three Parents

Primary Mathematics (Laying a strong foundation)

The Primary Mathematics syllabus aims to enable all students to:

- +Acquire mathematical concepts and skills for everyday use and for continuous learning in Mathematics.
- +Develop thinking, reasoning, communication, application and metacognitive skills through a mathematical approach to problem solving; and
- +Build confidence and foster interest in Mathematics

Primary Mathematics Key Focus

- + Develop critical mathematical processes that support the development of 21st century competencies
- Develop a greater awareness of the big ideas in Mathematics that will deepen students' understanding and appreciation of Mathematics
- + Give greater emphasis to the development of metacognition to promote self-directed learning and reflection.

Mathematics Department Vision

A Creative, Innovative and Effective Mathematics Problem Solver

Mathematics Curriculum Framework

Attitudes

Skills

Belief, appreciation, confidence, motivation, interest and perseverance

Proficiency in carrying out operations and algorithms, visualising space, handling data and using mathematical tools

Awareness, monitoring and regulation of thought processes

Competencies in abstracting and reasoning, representing and communicating, applying and modelling

Understanding of the properties and relationships, operations and algorithms

Concepts

Mathematical

Problem Solving

Processes

Syllabus Organisation

+ The concepts and skills covered in the syllabus are organised along 3 content strands. The development of processes, metacognition and attitudes are embedded in the learning experiences that are associated with the content.

Concept and Skills				
Number	Measurement and Geometry	Statistics		
Learning Experiences (Processes, Metacognition and Attitudes)				

Content Sequence

Semester 1

Numbers to 10 000
Addition and Subtraction
Money
Multiplication Tables of 6, 7, 8 and
9

Multiplication and Division More Word Problems (I) Bar Graphs Angles

Semester 2

Perpendicular and Parallel Lines Fractions Length, Mass and Volume Area and Perimeter More Word Problems (II) Time

Heuristics (P1 – P5)

- 1. Draw a model/diagram
- 2. Make a systematic list/tabulation
- 3. Look for patterns
- 4. Guess and check
- 5. Act it out
- 6. Use before-after concept

Heuristics (P1 – P5)

- 7. Work backwards
- 8. Restate the problem in another way
- 9. Simplify the problem
- 10. Make suppositions

Changes in P3 Content

Level	Movement	
Primary 3	Primary 4 Time 24-H clock	

Phases of Learning

- Prior knowledge
- Motivating contexts

Mastery

Learning environment

Motivated Practice

- Reflective
 Review
- Extended Learning

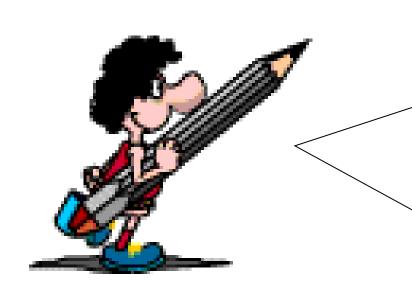
Readiness

Learning

Engagement

- Activitybased learning
- Teacherdirected inquiry
- Direct instruction

CPA Approach



Our approach when teaching Math concepts to young children is from 'Concrete' to 'Pictorial' to 'Abstract'.

C-P-A Approach

Mathematics Key Programmes

Math Alive

Talent Development

STEAM Week

Math Olympiad

Checkpoints

Daily Assignments

Diagnostic Package Experiential Learning Activities

Math Alive

Reasoning Cartoon Open-ended Tasks

Weighted Assessment (WA)

Weighting

Term 1	Term 2	Term 3	Term 4
10%	15%	10%	65%
1 WA	1 WA	1 WA	SA2

Semestral Assessment 2 - SA2

Format - P3 WA

Duration: 45 to 55 minutes

- Short-Answer Questions
- Long-Answer Questions



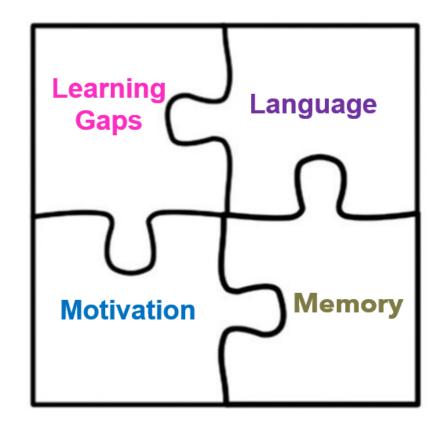
Exam Format - SA2

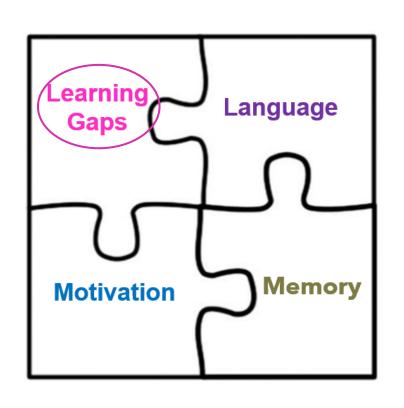
Section A	Section B	Section C			
8 MCQ	16 SAQ	5 LAQ			
8 Marks	27 Marks	15 Marks			
Total Marks: 50 Duration: 1 hour 30 minutes					

MCQ – Multiple Choice Question

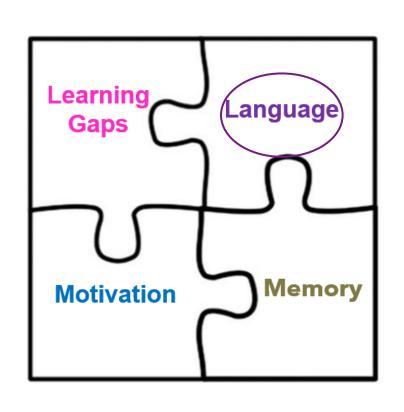
SAQ – Short-answer Question

LAQ – Long-answer Question

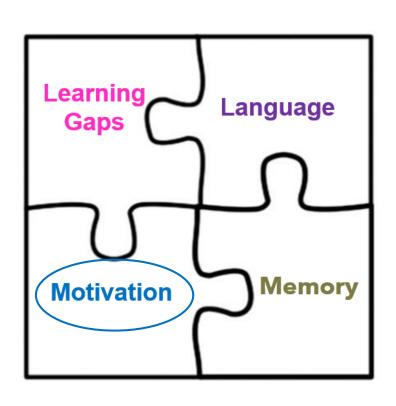




- Start with a smaller number (revisit what they have learnt in Primary 2)
- Start with concrete materials
- Scaffold their learning of new knowledge
- Provide regular practices

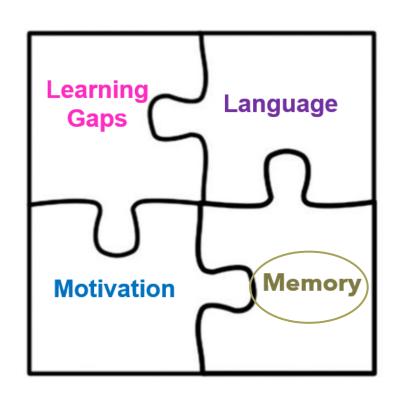


- Use simple language
- Help your child to comprehend word problems through chunking/ model drawing/ role playing/working backwards/ concrete materials/ etc
- Use mathematical language (Renaming/ Regrouping)
- Use of visuals





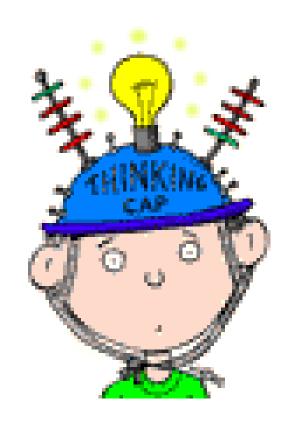
I can learn anything I want to.
When I'm frustrated, I persevere.
I want to challenge myself.
When I fail, I learn.
Tell me I try hard.
If you succeed, I'm inspired.
My effort and attitude determine everything.



Need to space out reviews to make the brain reconstruct that memory, strengthening like a muscle

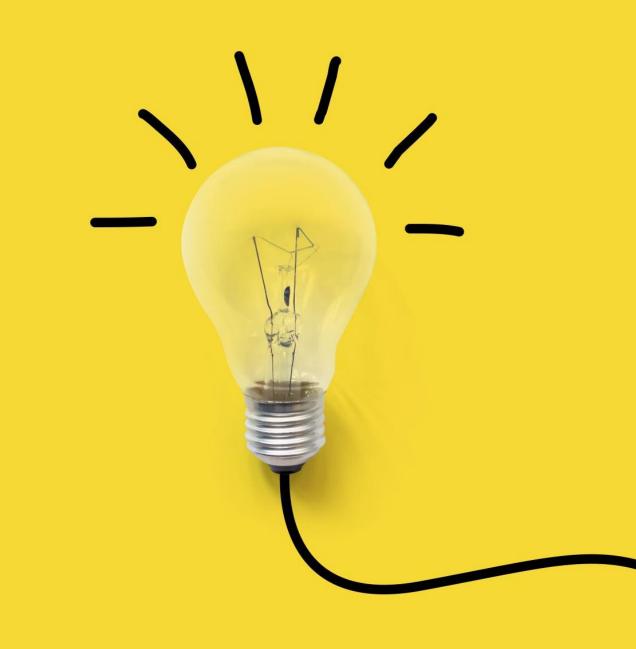


What do you think is going on?



Making mistakes is part of learning!

Neuroscientists have found that mistakes are helpful for brain growth and connectivity and if we are not struggling, we are not learning.



Contact Details

Mdm Leng Sok Wah Celina, HOD Mathematics

✓ leng sok wah celina@schools.gov.sg

Mdm See Rui Si, LH Mathematics

✓ see rui si@schools.gov.sg

