

P5
MATHEMATICS
CURRICULUM
BRIEFING



Curricula Goal

Competent Problem-Solvers

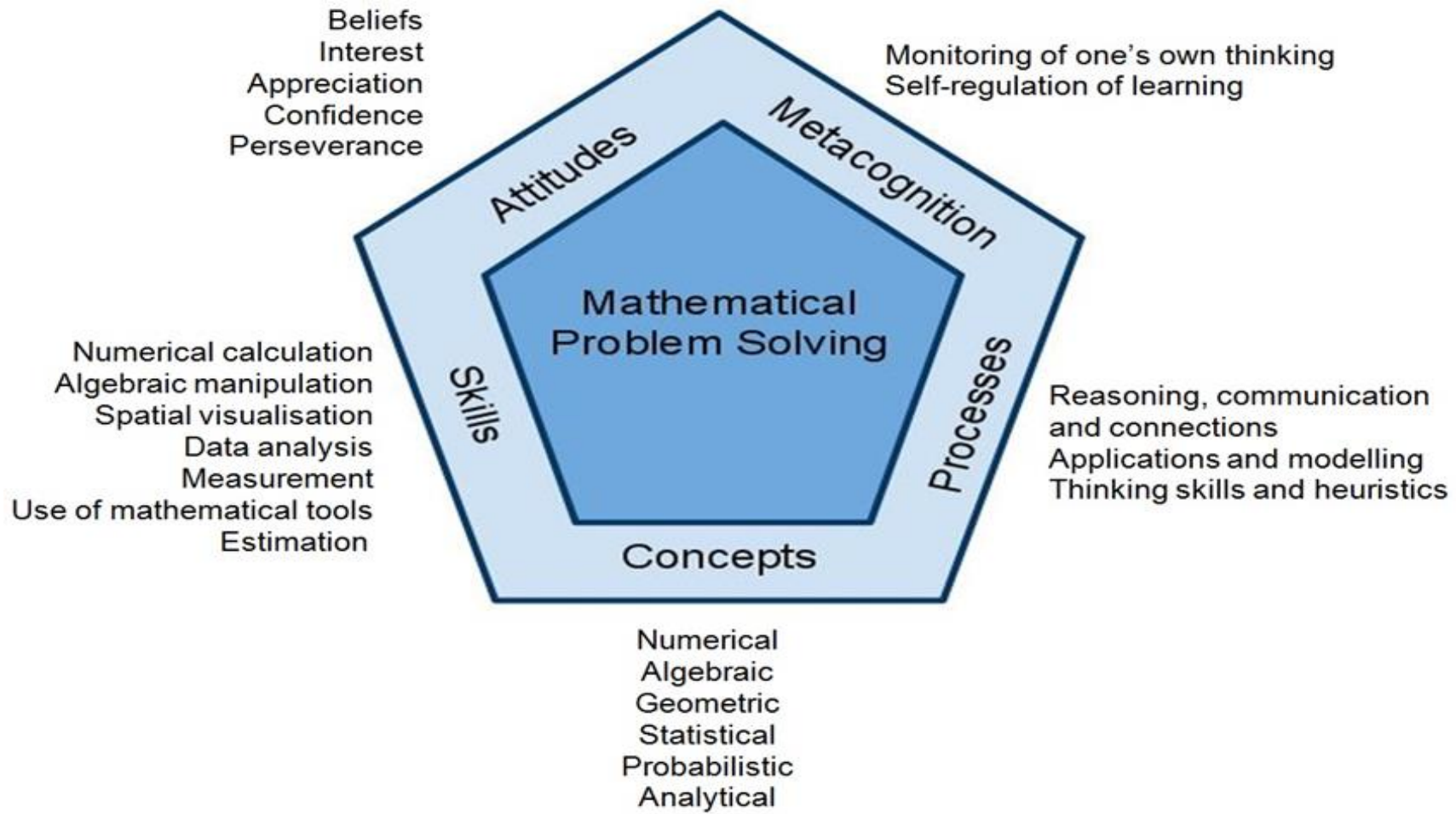
- attained a level of mastery of and interest in Mathematics.
- strong foundation for them to pursue Mathematics at the secondary level and beyond.

Curricula Goal

Competent Problem-Solvers

- The development of mathematical problem solving ability is dependent on five inter-related components, namely, *Concepts, Skills, Processes, Attitudes and Metacognition.*

The Mathematics Framework



Primary 1

Whole Numbers

Measurement

Geometry

Data Analysis

Primary 2/3

Whole Numbers

Measurement

Geometry

Data Analysis

Fractions

Primary 4

Whole Numbers

Measurement

Geometry

Data Analysis

Fractions

Decimals

Primary 5

Whole Numbers

Measurement

Geometry

Data Analysis

Fractions

Decimals

Percentage

Ratio

Primary 6

Whole Numbers

Measurement

Geometry

Data Analysis

Fractions

Decimals

Percentage

Ratio

Speed

Primary Maths Curriculum

Focus

P1 - P2

Building on
Foundation
in Numeracy

P3 - P4

Leverage on
Strengths
and Work on
Weaknesses

P5 - P6

Mastery in
Preparation
for PSLE

How we are going to ACHIEVE

P5 - P6

- ❖ Applying problem solving skills learnt and reasoning skills to formulate and solve problems
- ❖ Developing metacognition through exploration and mental calculation
- ❖ Developing visualisation skills through the use of concrete materials and visual representation
- ❖ Using mathematical language during Math lessons

PSLE FORMAT : *STANDARD MATHEMATICS*

Paper	Booklet	Item Type	No. of Questions	Marks per question	Weighting	Duration
1 Calculators are NOT allowed.	A	Multiple-choice (MCQ)	10	1	10%	1h
			5	2	10%	
	B	Short-answer	5	1	5%	
			10	2	20%	

Points to take note:

- Paper 1 focuses on **SPEED** and **ACCURACY**
- 25 min on MCQ (Booklet A)
- 30 min on Open-ended (Booklet B)
- 5 min to check – shading on OAS, transferring of answers onto answer space in Booklet B, check the units stated in the answer space

PSLE FORMAT : *STANDARD MATHEMATICS*

Paper	Item Type	No. of Questions	Marks per question	Weighting	Duration
2 Calculators are allowed.	Short-answer	5	2	10%	1 h 30 min
	Structured	12	3, 4, 5	45%	
Total (Paper 1 and Paper 2)		47	-	100%	2 h 30 min

Points to take note:

- Paper 2 focuses on **PROBLEM SOLVING**
- Logical reasoning, systematic presentation of solution
- POLYA's 4 steps to Problem Solving
- Attempt all questions

PSLE FORMAT : *FOUNDATION MATHEMATICS*

Paper	Booklet	Item Type	No. of Questions	Marks per question	Weighting	Duration
1 Calculators are NOT allowed	A	Multiple-choice (MCQ)	10	1	10%	1 h
			10	2	20%	
	B	Short-answer	10	2	20%	

Points to take note:

- Paper 1 focuses on **SPEED** and **ACCURACY**
- 25 min on MCQ (Booklet A)
- 30 min on Open-ended (Booklet B)
- 5 min to check – shading on OAS, transferring of answers onto answer space in Booklet B, check the units stated in the answer space

PSLE FORMAT : *FOUNDATION MATHEMATICS*

Paper	Item Type	No. of Questions	Marks per question	Weighting	Duration
2	Short-answer	10	2	20%	1 h
	Structured	6	3 or 4	20%	
Total (Paper 1 and Paper 2)		46	-	90%	2 h

Calculators are allowed.

Points to take note:

- Paper 2 focuses on **PROBLEM SOLVING**
- Logical reasoning, systematic presentation of solutions
- POLYA's 4 steps to Problem Solving
- Attempt all questions

EXAMINATION FORMAT

- ❖ Both papers are scheduled on the same day with a break between the two papers.
- ❖ Paper 1 has two booklets, Booklet A and Booklet B. Calculators is **NOT** allowed to be used in Paper 1.
- ❖ Paper 2 has one booklet. Calculators is allowed to be used in Paper 2.

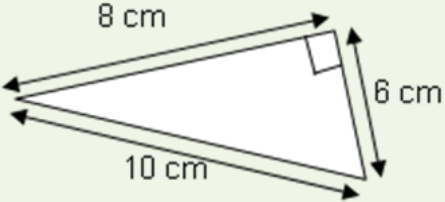
P5 Maths Assessments

- Assess the extent which students have achieved the learning outcomes specified in the syllabus.

P5 Maths Assessments

- Common Test 1 (Term 1)
- Mid-Year Examination
- Common Test 2 (Term 3)
- End-of-Year Examination

Examples OF SMA questions

No	Questions	Remarks
1	The shopkeeper bought 1000 clocks at \$14 each. How much money did he pay altogether?	<ul style="list-style-type: none">- Straight forward computational questions
2	What is the area of the triangle shown below? 	<ul style="list-style-type: none">- Apply the formulae of finding area of triangle
3	Mr Tan bought 6 packets of barley. The mass of each packet of barley was $\frac{1}{4}$ kg. The barley cost \$4 per kg. How much did Mr Tan pay for the 6 packets of barley?	<ul style="list-style-type: none">- Interpret the information- Simple context

EXAMPLES OF SMA QUESTIONS

No	Questions	Remarks
4	Aini paid \$30.80 for 10 similar erasers and 18 similar pens. The total cost of an eraser and a pen was \$2. Find the cost of a pen.	<ul style="list-style-type: none">- Interpret the information- Proportion reasoning- Simple context
5	Rajah, Jill and Ken spent a sum of money at a store. Rajah spent 3 times as much money as Jill. Rajah spent \$22 more than Ken. Jill and Ken spent \$58 altogether. How much did Rajah spend?	<ul style="list-style-type: none">- Analyse relationship of the quantities- Not a simple context

Examples OF SMA questions

No	Questions	Remarks
6	Grace and Jane shared the total cost of a gift. Grace paid \$29 more than $\frac{4}{9}$ of the total cost of the gift. Jane paid \$46. How much was the cost of the gift?	<ul style="list-style-type: none">- Analyse relationship of fractions and values- Not a simple context

Examples OF FMA QUESTIONS

No	Questions	Remarks
1	Find the value of $156 + 79$. Find the value of $92 \div 4$.	<ul style="list-style-type: none">- Straight forward computation- No context
2	A total of 96 children were at a library. There were 10 more boys than girls. How many girls were there?	<ul style="list-style-type: none">- Interpret the information- Simple context
3	6 years ago, the total age of Janet and her niece was 52 years old. Now Janet is 3 times as old as her niece. How old is her niece now?	<ul style="list-style-type: none">- Analyse relationship of the quantity- A simple situation

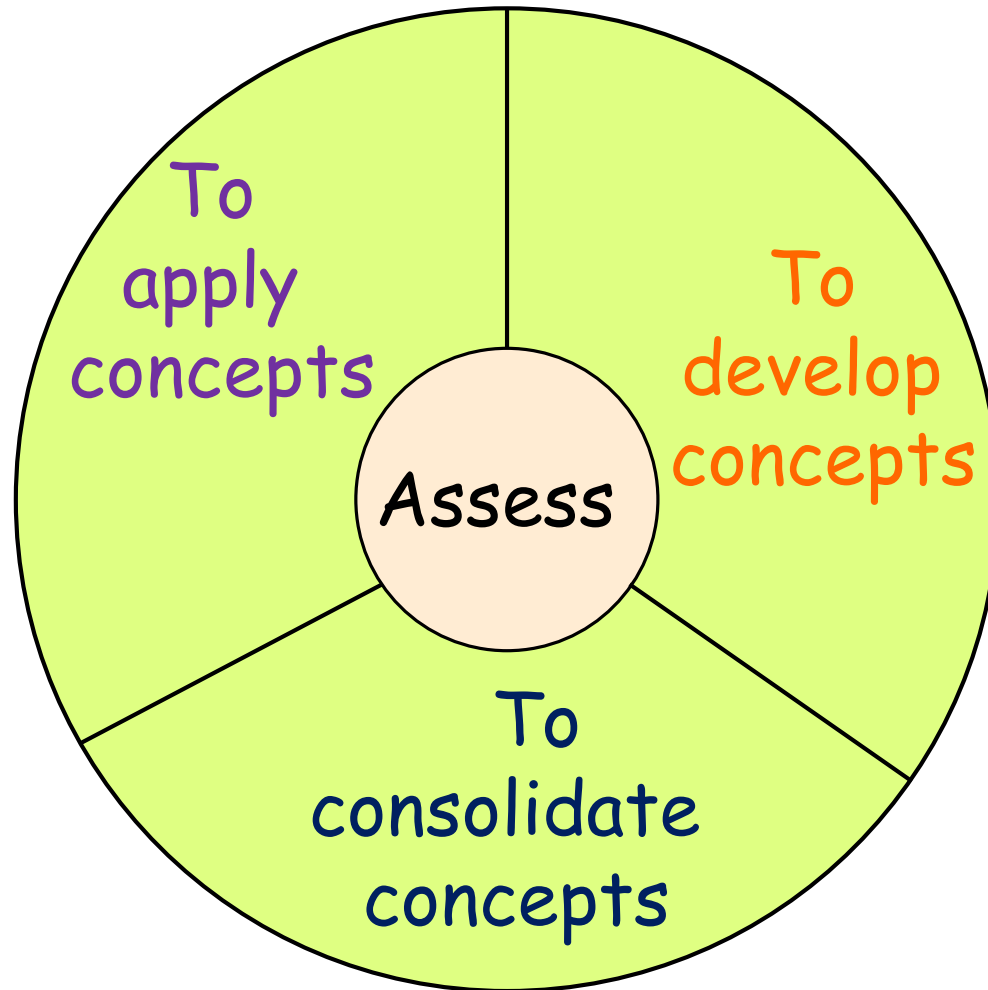
Examples OF FMA QUESTIONS

No	Questions	Remarks
4	Yati baked 440 cookies. After selling 294 cookies, how many cookies did she have left?	<ul style="list-style-type: none">- Straight forward computation- simple context
5	Ben bought a pair of shoes for \$197 and 4 shirts at \$89 each. After that, he had \$965 left. How much money did Ben have at first?	<ul style="list-style-type: none">- Interpret the information- Simple context
6	For every 3 chocolate cookies a baker sells, he sells 2 strawberry cookies. On Sunday, the baker sells a total of 830 cookies. How many chocolate cookies are sold on Sunday?	<ul style="list-style-type: none">- Analyse relationship of the quantities

Difficulty levels of items

- ❖ Mathematical concepts and skills assessed contribute to the difficulty of each item.

Types of Lessons



Develop Problem Solving Skills

❖ **Teaching of Heuristics**

- Heuristics are strategies that are essential to problem solving
- Focuses on the underlying processes in problem solving.

Develop Thinking Skills

❖ **Thinking Skills**

- Comparing
- Analysing parts and whole
- Identifying Pattern and Relationship
- Deduction
- Spatial visualisation

Develop Mathematical Process Skills

❖ **Maths Learning Log**

- To verbalise and communicate the Mathematical ideas concisely and logically.
- To make connections among different Math ideas and make sense of their learning.

