

Primary 4 Curriculum Briefing Mathematics



Vision

A community of confident and motivated pupils who are both effective problem solvers and team players.

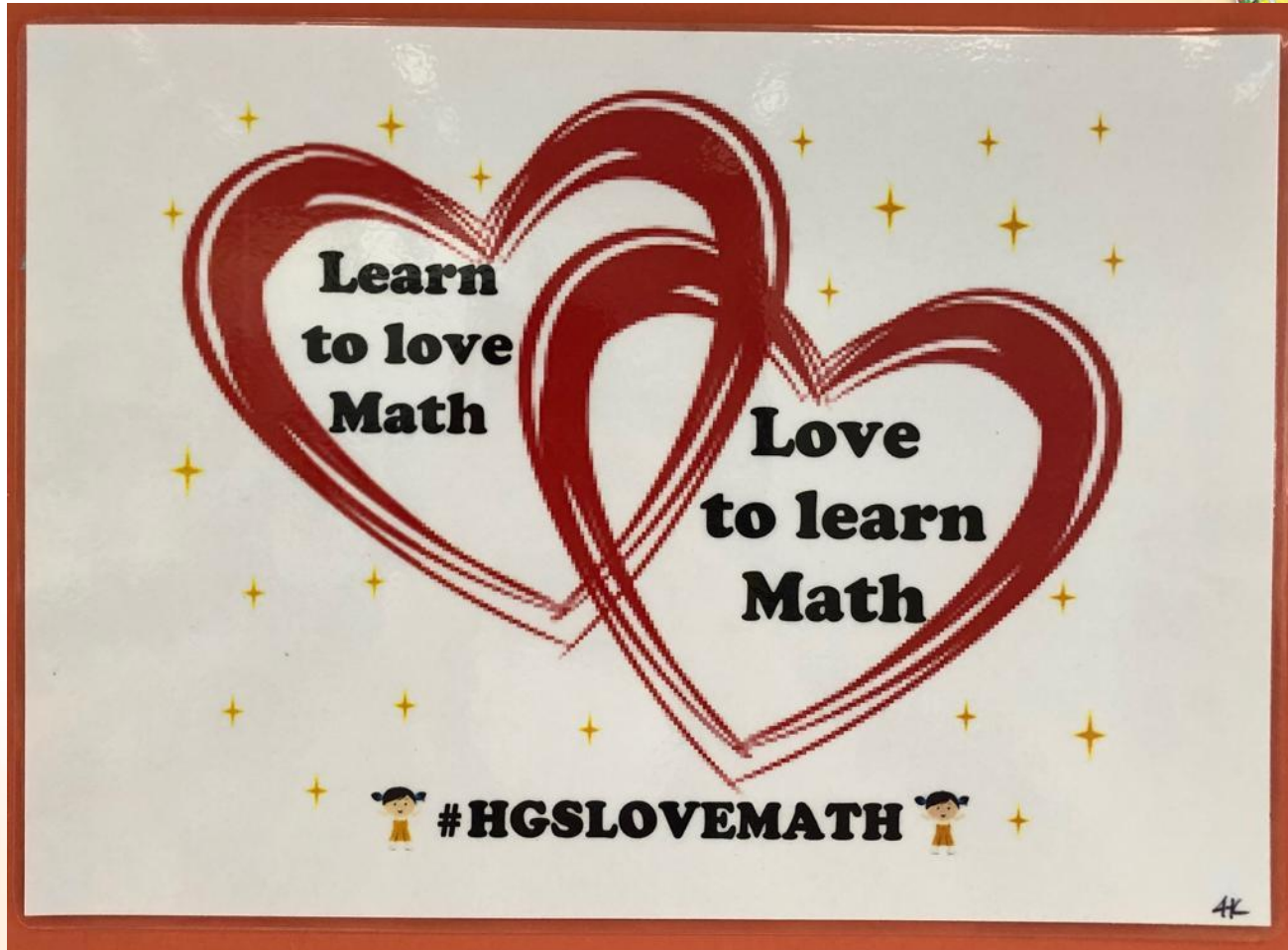


Mission

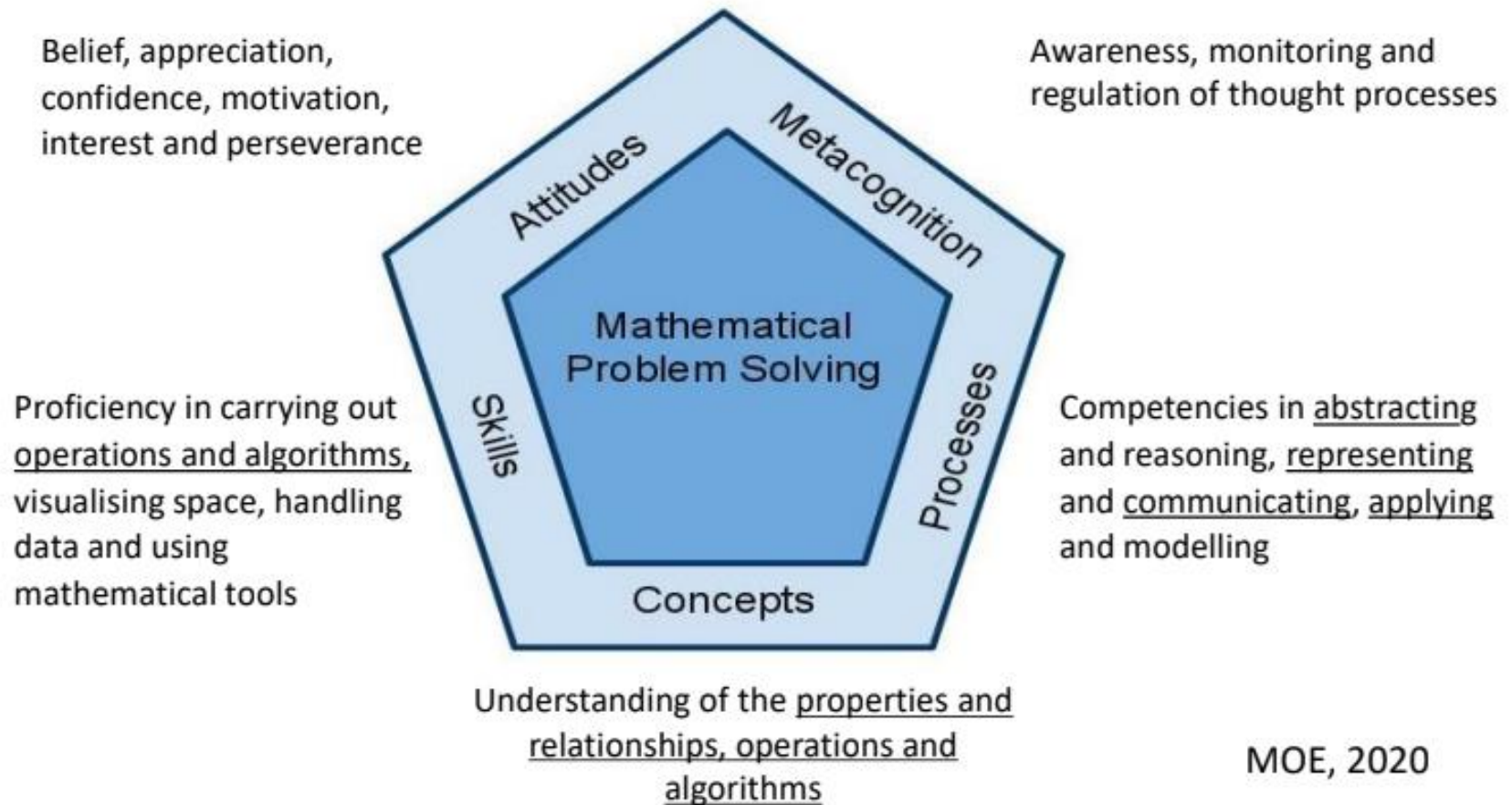
To equip pupils with the necessary mathematical knowledge and skills for everyday life and for continuous learning in mathematics and related disciplines.



We hope our girls will...



MOE Mathematics Curriculum Framework



MOE, 2020

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



Spiral Approach in Math Curriculum
Concepts taught are built on concepts taught in previous years

Topics	P 3	P 4
Whole Numbers	<ul style="list-style-type: none"> • Numbers up to 10 000 • Addition & Subtraction • Multiplication & Division 	<ul style="list-style-type: none"> • Numbers up to 100 000 • Multiplication & Division • Rounding And Estimation (\approx) • Factors and Multiples
Fractions	<ul style="list-style-type: none"> • Equivalent fractions • Addition & Subtraction 	<ul style="list-style-type: none"> • Mixed numbers & improper fractions • Addition & Subtraction • Fraction of a set of objects
Money / Decimals	<ul style="list-style-type: none"> • Addition & Subtraction 	<ul style="list-style-type: none"> • Decimals up to 3 decimal places • Addition and Subtraction • Multiplication and Division
Measurement	<ul style="list-style-type: none"> • Length, Mass and Volume • Time 	<ul style="list-style-type: none"> • Time (24-hour Clock)
Geometry	<ul style="list-style-type: none"> • Angles (rt \angle, more or less than) • Parallel and Perpendicular Lines • Area and Perimeter - Squares and Rectangles 	<ul style="list-style-type: none"> • Measurement and Drawing of Angles • Turns and 8-point Compass • Symmetry • Area and Perimeter
Data Representation and Interpretation	<ul style="list-style-type: none"> • Bar Graphs 	<ul style="list-style-type: none"> • Tables • Line Graphs

Words in **bold** ~ new topics in P4

Books and Materials Used

- ❖ *My Pals Are Here!* Pupil's Book 4A and 4B
- ❖ *My Pals Are Here!* Workbook 4A and 4B
- ❖ *My Pals Are Here!* Topical Tests
- ❖ P4 Heuristics Worksheets
- ❖ Math File (red folder)
- ❖ Math Bank Book



Whole School Heuristics Approach

No.	Heuristics	P1	P2	P3	P4	P5	P6
1	Model Drawing: Part and Whole	✓	✓	✓	✓		
2	Model Drawing: Comparison	✓	✓	✓	✓		
3	Model Drawing: Multiplication and Division		✓	✓	✓		
4	Model Drawing: Before and After			✓	✓	✓	✓
5	Systematic Listing	✓	✓	✓	✓	✓	✓
6	Find a Pattern	✓	✓	✓	✓	✓	✓
7	Draw a Diagram	✓			✓		✓
8	Restate The Problem					✓	
9	Guess and Check			✓	✓	✓	✓
10	Working Backwards			✓		✓	✓
11	Make an Assumption				✓	✓	✓

Types of Assessments



When are pupils assessed?	Non-weighted Assessments	Weighted Assessments
Term 1 to Term 4	<ul style="list-style-type: none">• Class activities• Math Practices e.g. Workbook Test Book Worksheets Heuristics worksheets• Questioning and Feedback• Practice Paper 1 (Term 1)	<ul style="list-style-type: none">• Mid-Year Exam (Term 2)• Weighted Assessment (Term 3)• End-of-Year Exam (Term 4) <p>* Dates and topics to be tested will be provided in the HA letters.</p>



Format for Weighted Assessments

	Term 2 Mid-Year Exam	Term 3 Weighted Assessment	Term 4 End-of-Year Exam
Duration	1h 45 min	50 min	1h 45 min
Weightage	30%	10%	60%
Total Marks	100	30	100
Format: (No. of Questions)			
- MCQ	15	5	15
- Short- Answer Question	20	10	20
- Word Problem	8	5	8



Common codes used during marking of Maths questions/word problems

Codes	Representations
CC	Careless calculation (method is correct)
ME	Missing Equation
TE	Transfer Error (within solution)
MR	Misread (From question to solution)
MU	Missing standard unit



Some examples of how marking codes are used



What was their total score?

$$\begin{array}{r} 336 \\ + 42 \\ \hline 378 \end{array}$$

$$\begin{array}{r} 378 \\ - 61 \\ \hline 317 \end{array}$$

$$\begin{array}{r} 378 \\ + 317 \\ + 336 \\ \hline 1031 \end{array}$$

(Jane \square $336 + 42 = 378$) ME!

(Peter \square $378 - 61 = 317$)

(Total \square $378 + 317 + 336$)
= 1031

Answer: 1031

Missing Equation

Difference $\rightarrow 7 - 4 = 3$

3 units = \$243 ✓

1 unit = $\$243 \div 3 = \81 ✓

Total $\rightarrow \$81 \times 11 = \800 X CC!

Careless Calculation



Pupils are expected to:

1. Set own goals – know what they want to achieve
2. Be attentive in class
3. Complete and hand in work on time
4. Present solutions in an organised way, showing important steps or workings and standard units
5. Take note of their mistakes in their work and do corrections
6. Seek help from teacher to clarify any doubts



Supporting your child in their learning

- Please ensure school work is completed first.
- Work and **communicate** closely with your child's Math Teacher.

- **Follow up** on homework daily
 - ask questions that guide without telling them the answer.

Prompt Further Thinking

- How do you know that ...?
- What does this tell us about ...?
- How can we explain ...?
- What did you see / know ?
- What did you see/ know that makes you say so?

Probe Understanding

- Is it possible that ...? **Give examples**
- What would happen if ...?
- Why ...?
- Why not ...?



Supporting your child in their learning

- Relate Math concepts to **daily life examples**
 - e.g. - Use of 24-hour clock to tell time
 - Show your child tables or line graphs from newspapers, magazines etc
 - Highlight decimals in price tags, digital weighing scales, labels in food items etc
 - Develop a sense of different units of measurements such as 1 centimetre vs 1 metre vs 1 kilometre
- Ensure your child knows the **multiplication tables** well especially 6, 7 and 8 timetables.
 - Provide a **positive and conducive environment** & help her plan a scheduled time for homework and revision

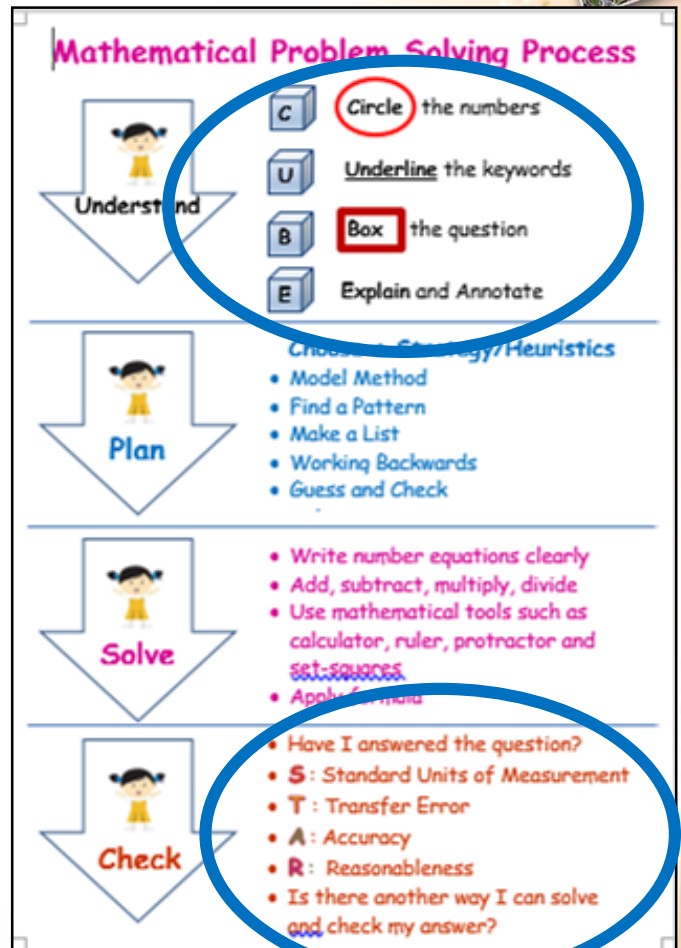


Encourage and praise your child's effort



Supporting your child in their learning

- Reinforce what the teacher has taught:
 - a) Remind your child to **annotate** the word problems using '**CUBE**'.
 - b) Remind your child to show **proper and detailed working steps**.
 - c) Train your child to **check their work using 'STAR'**.



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