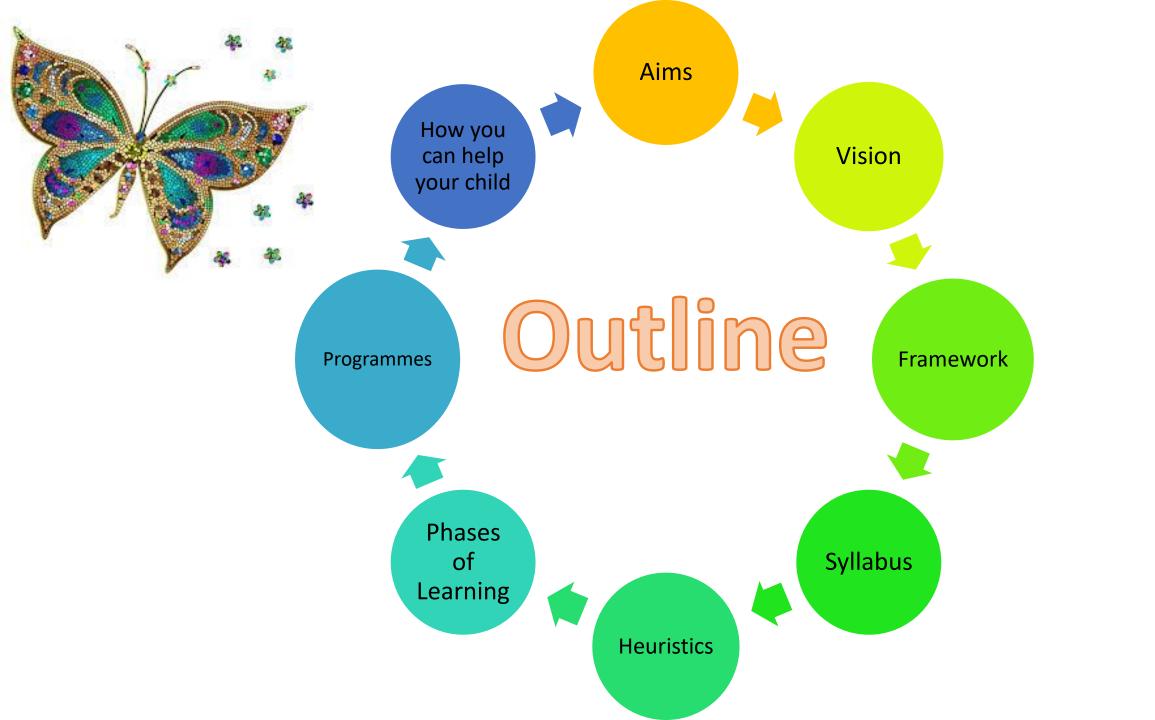


Information for Primary 5 Parents



# Primary Mathematics (Laying a strong foundation)

The Primary Mathematics syllabus aims to enable all students to:

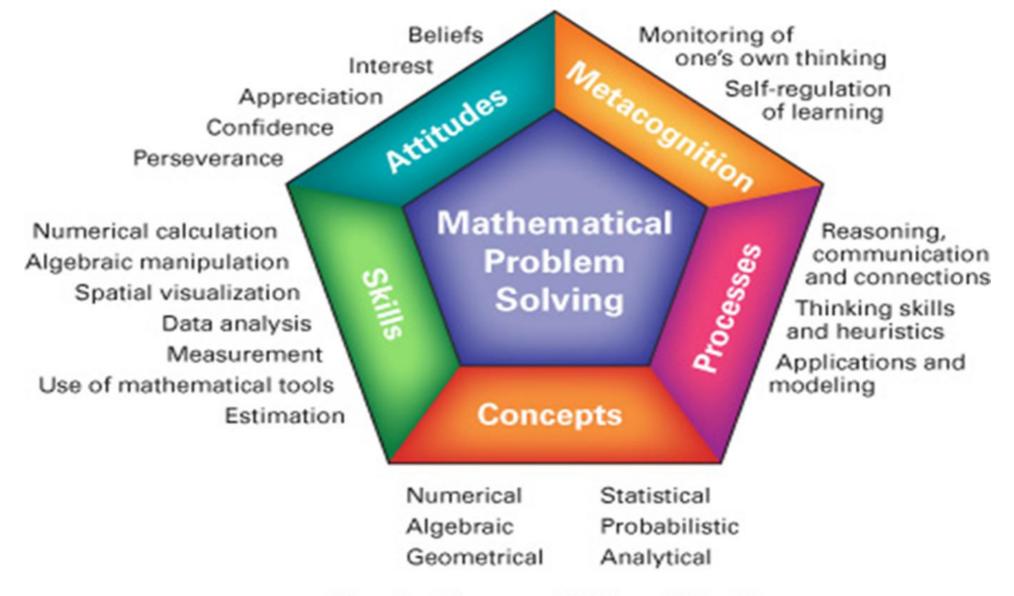
- •Acquire mathematical concepts and skills for everyday use and for continuous learning in Mathematics.
- •Develop thinking, reasoning, communication, application and metacognitive skills through a mathematical approach to problem solving; and
- Build confidence and foster interest in Mathematics

### Ma Department Vision

A Creative, Innovative and Effective Mathematics Problem Solver



#### Ma Framework



From the Singapore Ministry of Education

## Ma Syllabus Organisation (S)

The syllabus is organised along three content strands with a listing of mathematical processes that cut across the 3 strands.

|   | 3 Content Strands + 1 Process Strand   |  |                          |  |  |
|---|--|--|--------------------------|--|--|
|   | Number and Algebra   | <b>Measurement and Geometry</b>  | Statistics               |  |  |
| • | Numbers Up to 10 Million Four Operations – Whole Numbers Fraction and Division Four Operations – Fraction Four Operations - Decimals Percentage Ratio Rate | <ul> <li>Area of Triangle</li> <li>Volume of Cube and Cuboid</li> <li>Angles</li> <li>Triangles</li> <li>Parallelogram, Rhombus and Trapezium</li> </ul> | Average of a set of data |  |  |
|   | Mathamatical Document  |  |                          |  |  |

#### **Mathematical Processes**

Reasoning, Communication, Connection, Application, Thinking Skills and Heuristics

## Ma Syllabus Organisation (F)

The syllabus is organised along three content strands with a listing of mathematical processes that cut across the 3 strands.

| 3 Content Strands + 1 Process Strand  |   |                                    |  |
|---|---|------------------------------------|--|
| Number and Algebra  | Measurement and Geometry  | Statistics                         |  |
| <ul> <li>Numbers Up to 10 Million</li> <li>Four Operations – Whole Numbers</li> <li>Factors and Multiples</li> <li>Concepts of Fractions</li> <li>Equivalent Fractions</li> <li>Mixed Numbers and Improper Fractions</li> <li>Four Operations – Fractions</li> <li>Decimals Up to 3 Decimal Places</li> <li>Four Operations – Decimals</li> <li>Rate</li> </ul> | <ul> <li>Time</li> <li>Area and Perimeter</li> <li>Volume of Cube and Cuboid</li> <li>Perpendicular and Parallel Lines</li> <li>Angles</li> <li>Rectangle and Square</li> </ul> | Tables, Bar Graphs and Line Graphs |  |

#### **Mathematical Processes**

Reasoning, Communication, Connection, Application, Thinking Skills and Heuristics

## Heuristics (P1 to P5)

#### Draw a diagram/ model

Make a systematic list/ tabulation

Look for patterns

**Guess and Check** 

Act it Out

Use Before-and-After Concept

**Work Backwards** 

Restate the problem in another way

Simplify the problem

Make suppositions



## **Phases of Learning**

- Prior knowledge
- Motivating contexts
- Learning environment

Readiness



- Motivated Practice
- Reflective Review
- Extended Learning

**Mastery** 

**Engagement** 

- Activitybased learning
- Teacherdirected inquiry
- Direct instruction



### P5 Instructional Programmes

To help students build strong foundation in primary Math through a structured teaching sequence and supporting manipulatives and materials based on the concrete-pictorial-abstract (CPA) approach.

#### Checkpoints

Daily assignments

Experiential Learning activities

Class, group and individual tasks

Presentation



#### Department Programmes

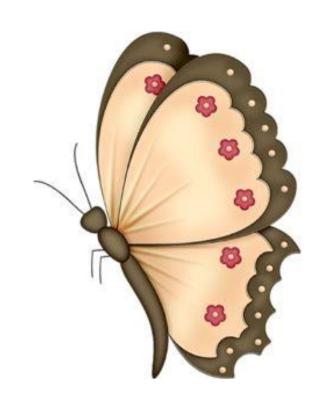
Reasoning Cartoon

**Math Alive** 

Talent Development

E2K

Math Olympiad



# How can you help your child in Mathematics

what do you think is going on?





#### CONTACT DETAILS

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