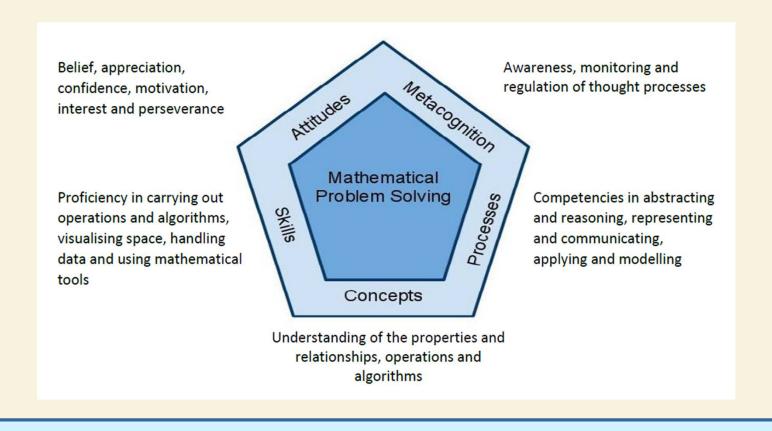


### **Mathematics Curriculum Framework**



#### Aims of the Primary Math Syllabus

#### To enable students to:



 acquire mathematical concepts and skills for everyday use and 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.

# **Math in Primary 1**

### 3 content strands:

- Number & Algebra
- Measurement & Geometry
- Statistics

# Number & Algebra

### Topics:

- Numbers 0 to 10
- Addition within 10
- Subtraction within 10
- Ordinal Numbers
- Numbers to 20
- Addition and Subtraction
- Numbers to 100
- Addition and Subtraction Within 100
- Multiplication
- Division



# **Measurement & Geometry**

# Topics:

- Shapes
- Length
- Time
- Money



### **Statistics**

### Topic:

Picture Graphs



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# C-P-A Approach in Math Learning

#### 1. Concrete

- a. Use of manipulatives
- b. Hands-on activities

#### 1. Pictorial

Use of pictorial representations and/or drawing of diagrams and models

#### 1. Abstract

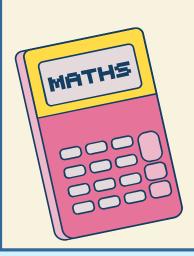
a. Numerical representations, symbolic representations, algorithms and mental calculations



# Math Programme for Primary 1

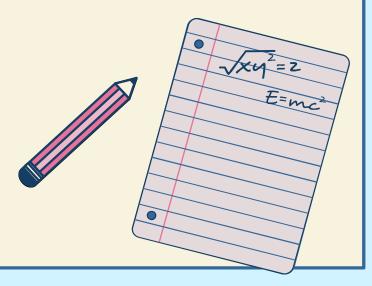
#### 1. Learning Support in Math (LSM)

a. Early intervention support for students who need help in acquiring basic numeracy skills.



### **Formative Assessments**

- 1. An integral part of teaching and learning
- 2. On-going process where teachers gather information about students' learning to inform and support teaching



### **Formative Assessments**

- 1. Provides information on how well students are progressing toward the desired learning goal(s).
- 2. Non-weighted
- 3. Focus on growth and mastery, **NOT** on grades and performance



### **Modes of Formative Assessments**

- Oral Question & Answer
- Diagnostic Tasks
- 3. Pen-and-Paper Tasks
- 4. Performance Tasks
- 5. Journal Writing



### **Feedback to Parents**

- 1. Check-point feedback given after every 2-3 units taught
- 2. Based on 4-Level Qualitative Descriptors
  - a. Beginning
  - b. Developing
  - c. Competent
  - d. Accomplished



# Sample Feedback to Parents

#### Semester 1 - Chapter 1: Numbers to 10

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	Student's Self-evaluation	0	<u>··</u>	00
	I checked my work.			
	I wrote the numbers clearly.			
	I worked out all the answers without asking for help.			

#### Feedback on child's learning:

Learning Objectives	Beginning	Developing	Competent	Accomplished
Chapter 1: Numbers to 10				
To count, read and write				
numbers 0 to 10 (Q1, Q2)				
To identify the missing				
numbers in the number				
sequence from 0 to 10				
(Q13)				
To compare numbers				
within 10 (Q3, Q4)				



## Home Support for Your Child

- 1. Set a daily homework routine.
- 2. Regularly review the basic concepts & skills your child has learnt in class.
- 3. Focus on your child's **efforts** instead of his/her mistakes.
- 4. Always motivate and encourage him/her to build confidence.

## Home Support for Your Child

- 1. Play Math games.
  - Some examples:
    - a. Number Snap!
    - b. Addition/Subtraction Bingo
    - c. Skip Counting
- Read Math-related stories.
  - Some examples:
    - a. The Very Hungry Caterpillar (Eric Carle)
    - b. Amanda Bean's Amazing Dream (Cindy Neuschwander)
    - c. How Big Is A Foot?(Rolf Myller)
    - d. Smart Mathematician



## Home Support for Your Child

Provide and create opportunities to explore Mathematics through real-life experiences.

#### Some examples:

- a. Estimating number of items in a container.
- b. Estimating time taken to travel from home to school.
- c. Tell and read time from both analogue and digital clocks or watches.
- d. Calculate total cost of items while grocery shopping.
- e. Reading the mass or volume of items indicated on the labels.
- f. License-plate Math

Eg SMR 9577 U 
$$\rightarrow$$
 9 + 5 + 7 + 7 = 28  
 $\rightarrow$  9 + 5 = 7 + 7  
 $\rightarrow$  9 - 7 = 7 - 5

# **MATHEMATICS**

is not about numbers, equations, computations or algorithms: it is about UNDERSTANDING.

~ William Paul Thurston (1946 – 2012)