

MERIDIAN PRIMARY SCHOOL



Nurturing Future Learners, Future Citizens, Future Leaders

11 February 2023

Primary 1 and 2 Mathematics Curriculum Sharing

Building Strong Foundation in Numeracy

Mdm Noor Heryanti
LH Mathematics (Covering)

Resilience · Responsibility · Care · Respect · Integrity · Teamwork ·

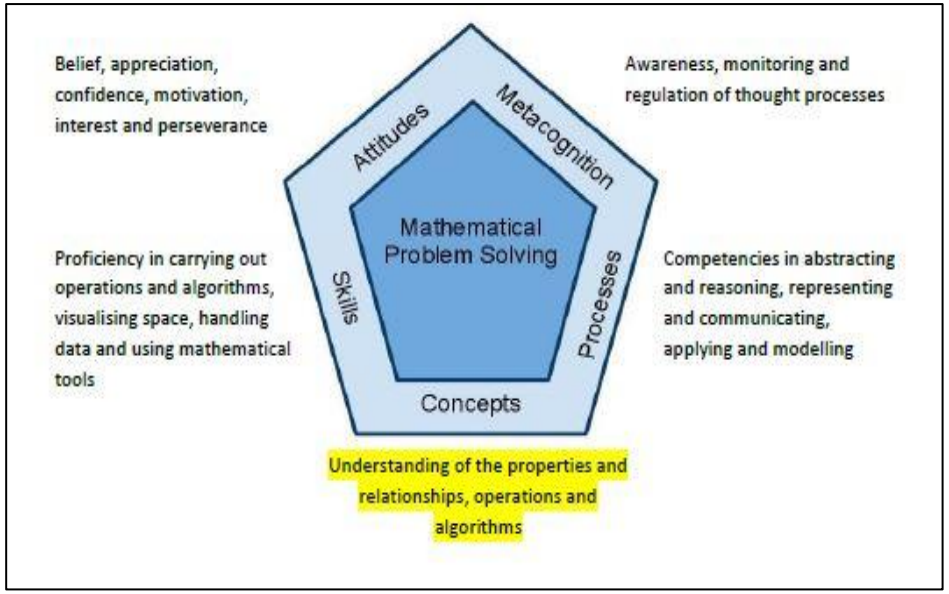
Importance of Learning Mathematics

- **Mathematics contributes to the development and understanding in many disciplines and provides the foundation for many of today's innovations and tomorrow's solutions.**
- **… underpins many aspects of our everyday activities, from making sense of information around us to making informed decisions about personal finances.**

-Singapore Mathematics Teaching and Learning Syllabus 2021

Broad Aims of Primary Mathematics Education

- 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
- Build confidence and foster interest in mathematics



Singapore Mathematics Framework, 2021

MPS Mathematics Department

Vision

Enjoy, appreciate Mathematics and use it in everyday life.

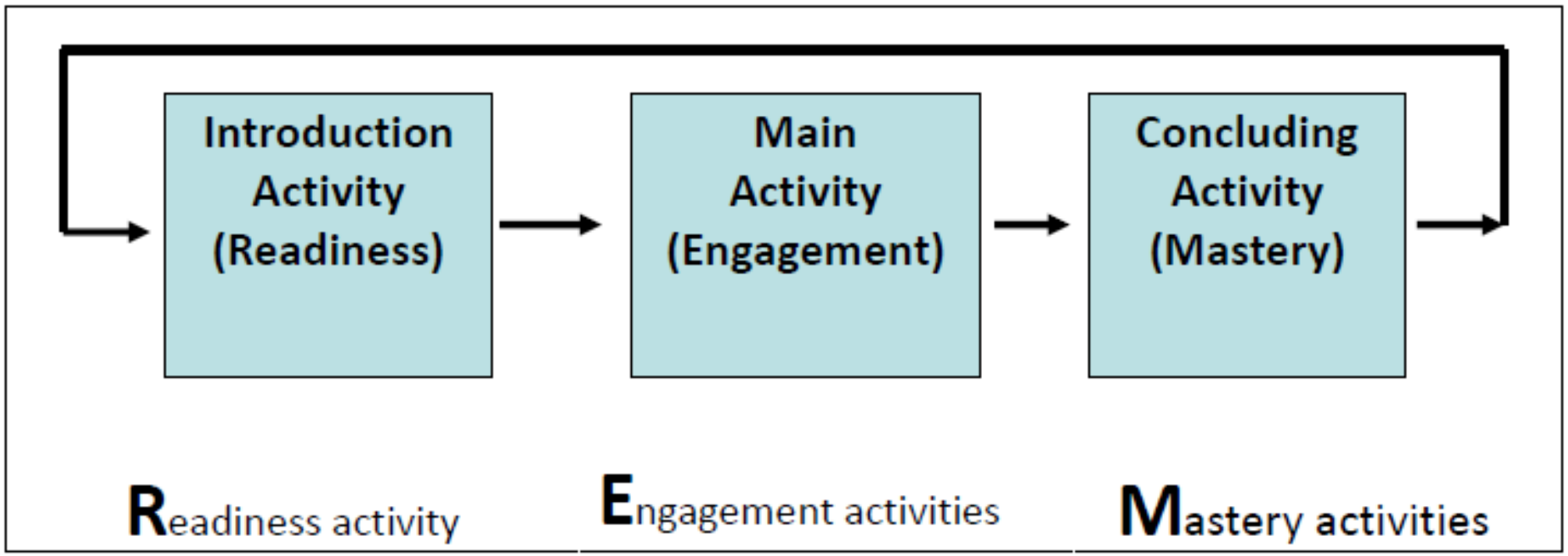
Mission: 3R Approach

Rigorous – A spiral and coherent curriculum with progression in learning objectives.

Responsive – Differentiated approaches to respond to the diverse needs of learners.

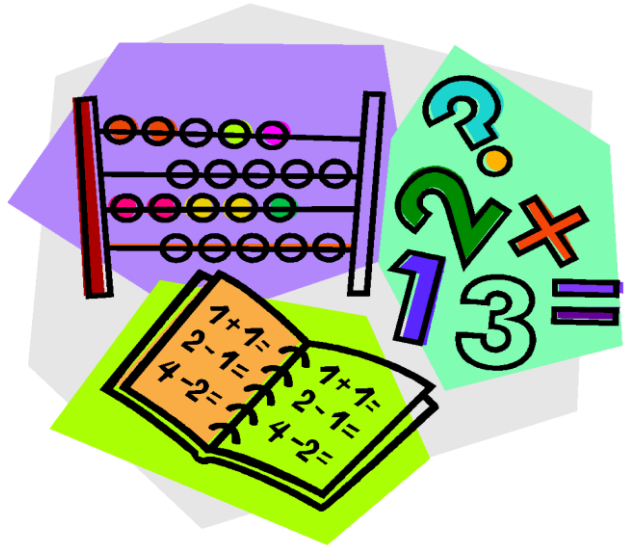
Relevant – Motivating context for pupils to learn and see connections of math in their daily lives and real world situations.

Pedagogical Approaches and Strategies



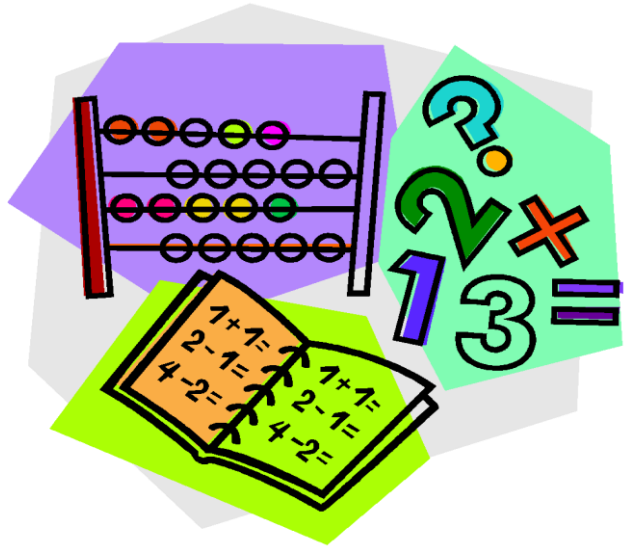
P1 Mathematics Concepts and Skills

Whole Numbers	Measurement and Geometry	Statistics
• Numbers up to 100 • Four Operations (+ , – , x , ÷) • Ordinal Numbers	• Length • Time • Money • Shapes	• Picture Graphs



P2 Mathematics Concepts and Skills

Whole Numbers	Measurement and Geometry	Statistics
• Numbers up to 1000 • Four Operations (+ , – , x , ÷) • Fractions	• Length • Mass • Volume • Time • Money • Shapes	• Picture Graphs



Providing Rich Mathematical Experience

Learning mathematics is beyond just route learning of concepts and skills.

Equally important are the Process Skills and they are learned through carefully constructed Learning Experiences (LE).

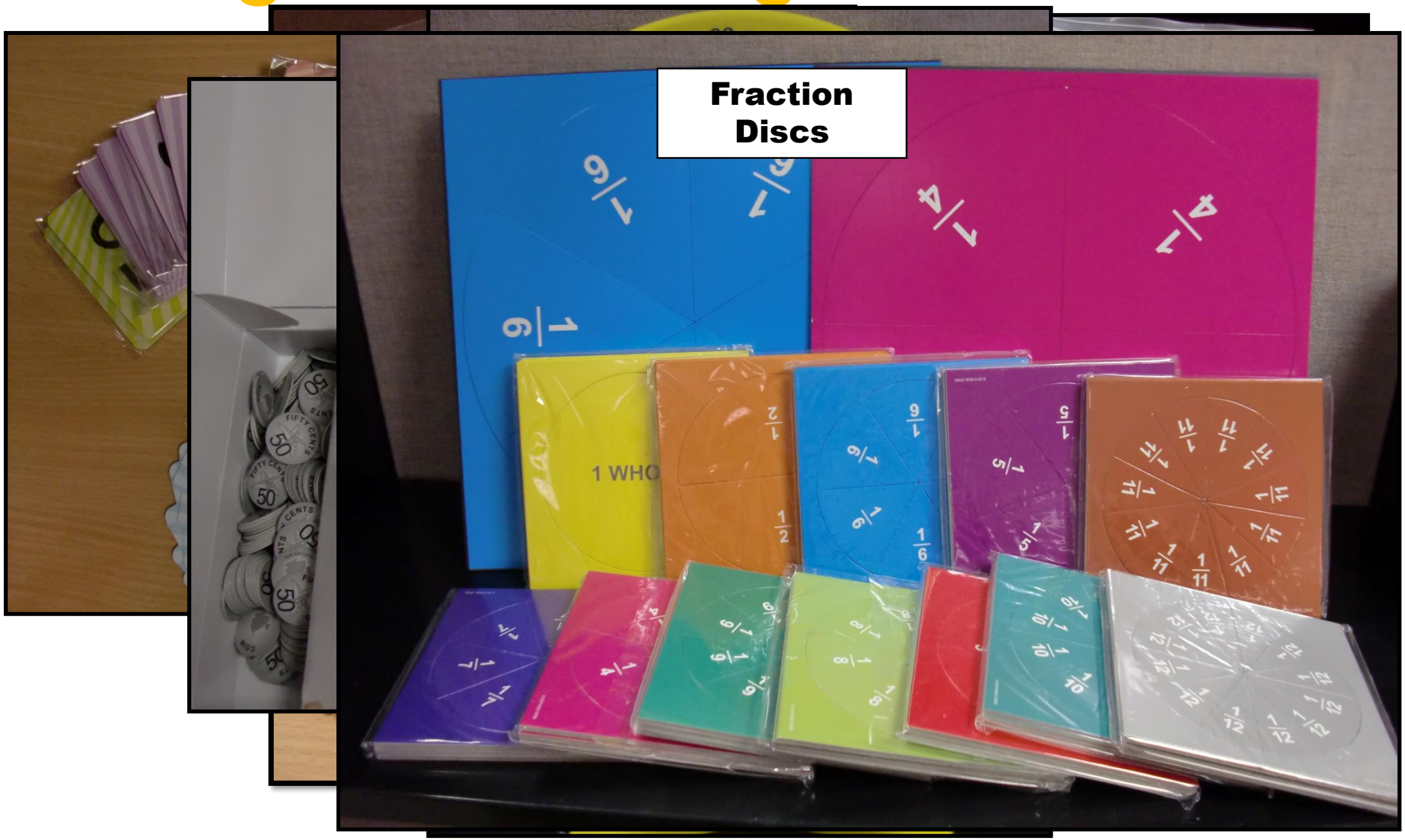
Learning Experiences (LE)

LE provide opportunities for students to:

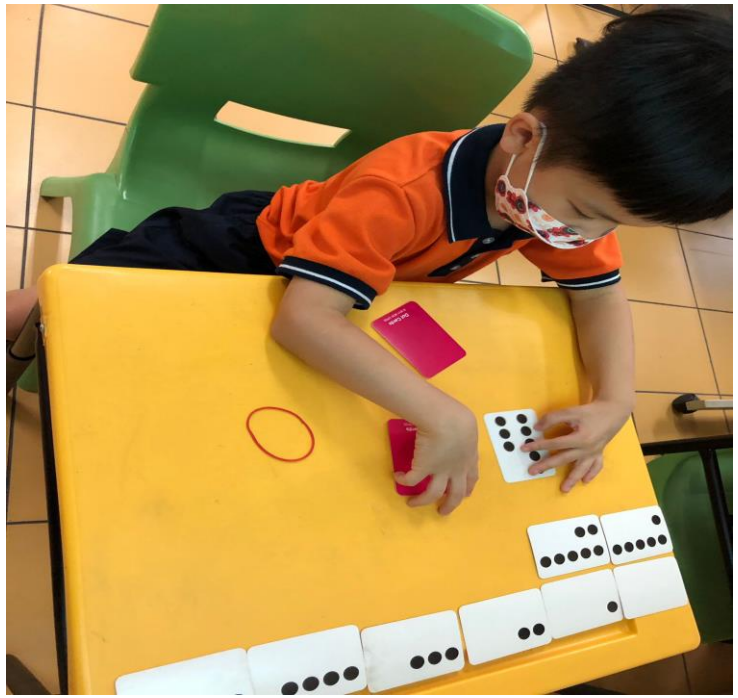
- **Enhance and develop conceptual understanding through use of hands-on learning materials and ICT tools**
- **Apply concepts and skills learnt to solve problems in real-world contexts and to solve non-routine problems**
- **Communicate their reasoning and connections and be engaged in exploratory and metacognitive activities.**
- **Build confidence and foster interest in mathematics**

- Singapore Mathematics Teaching and Learning Syllabus 2021

Teaching and Learning Resources



Providing Rich Mathematical Experience

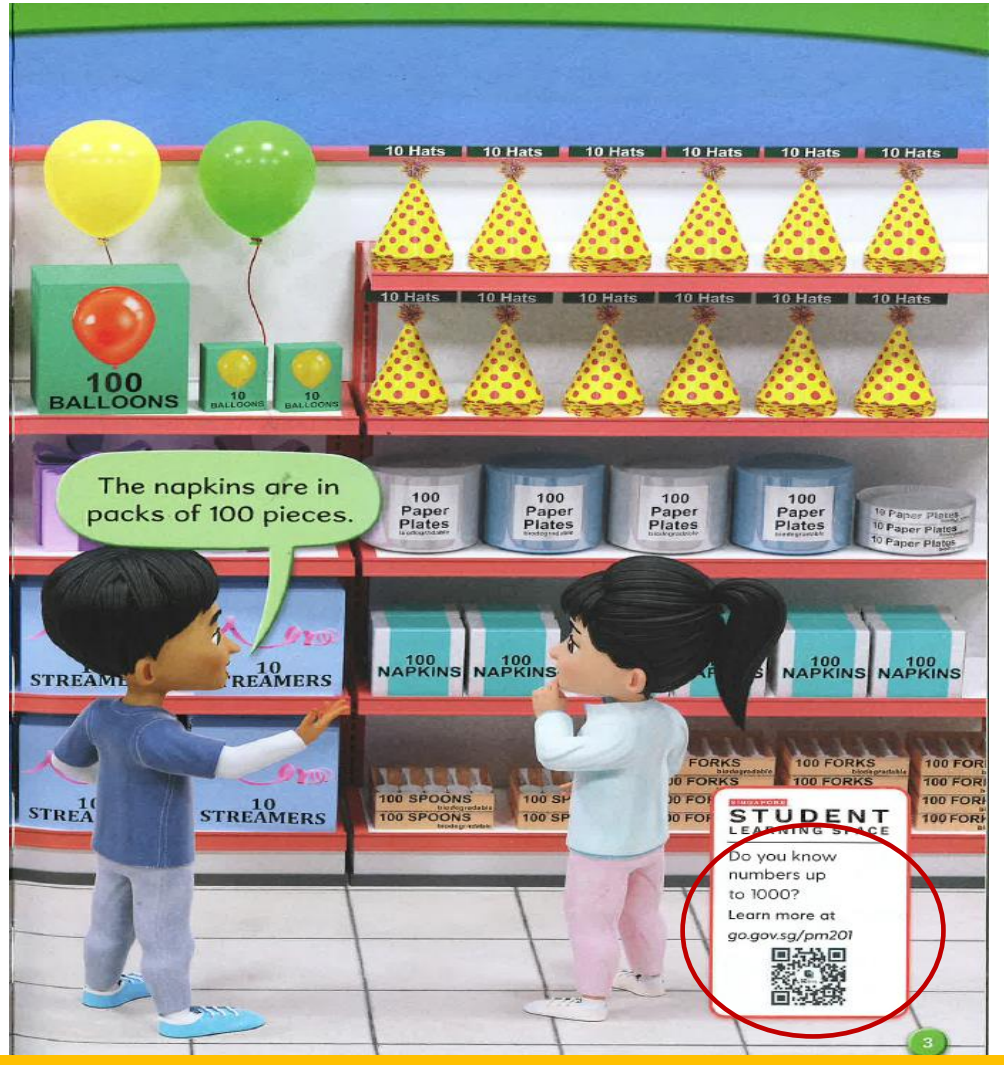



Concrete
Pictorial
Abstract
2 + 1 = 3

What is Concrete-Pictorial-Abstract?

- **Concrete (“Doing”)**
  - Use of manipulatives
- **Pictorial (“Seeing”)**
  - Constructing a picture/diagram/model
- **Abstract (“Symbolic”)**
  - Conceptualize or visualize the math behind the concrete and pictorial using equations

Student Learning Space(SLS)



MERIDIAN PRIMARY SCHOOL

Nurturing Future Learners, Future Citizens, Future Leaders


RESILIENCE
CARE


ENGLISH
SOCIAL STUDIES
Green Group
CARE

Bridging and LSM

1. Bridging – After school support

2. LSM

Features of LSM Programme

- Provision of support is up to 4 years **but students' progress is reviewed annually**
- Small class size
- Covers Primary Mathematics syllabus
- Support is given by trained teachers

Features of LSM Programme

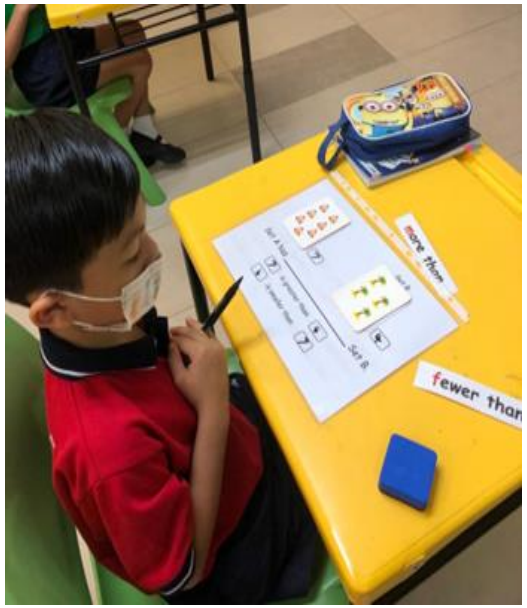
- Focus is on building good mathematical understanding
- Aims to build students' confidence and positive beliefs about their ability to do Math
- Students receive more individual attention from teacher

Features of LSM Programme

- Students learn in conducive environment

Features of LSM Programme

- Students learn through varied activities



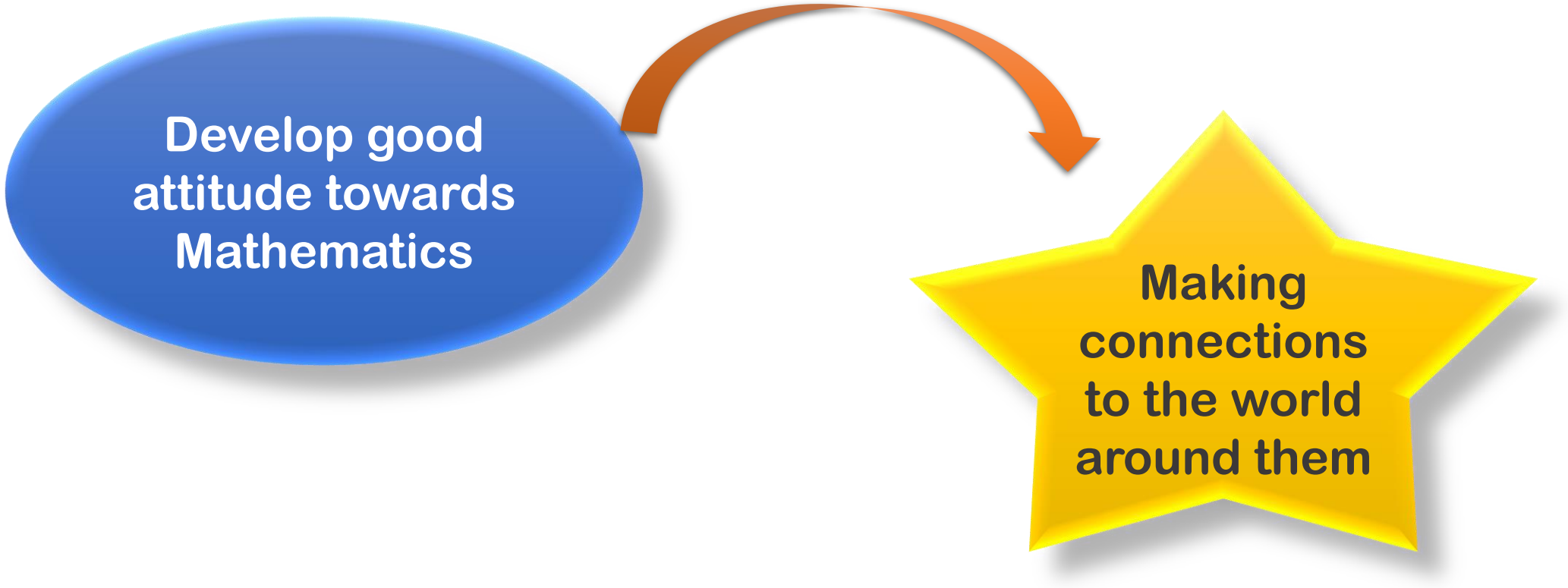
Mathematics (Primary 1)

Topics	Term 1	Term 2	Term 3	Term 4
Whole Numbers • Numbers to 100 • Addition & subtraction • Multiplication & Division **Money** • Money **Measurement** • Length • Time **Geometry** • 2D Shapes **Data Representation** • Picture Graphs	**Diagnostic Check 1** Topical review at the end of every topic **Term 1 Review** • Numbers to 10 • Addition up to 10 • Subtraction up to 10	**Diagnostic Check 2** Topical review at the end of every topic **Term 2 Review** • Numbers to 20 • Addition and subtraction up to 20 • Picture Graphs • Shapes • Ordinal Number **P1 Assessment Plan**	**Diagnostic Check 3** Topical review at the end of every topic **Term 3 Review** • Number to 100 • Addition and Subtraction within 100 • Length • Multiplication	**Diagnostic Check 4** Topical review at the end of every topic **Term 4 Review** • Division • Time • Money

Mathematics (Primary 2)

Topics	Term 1	Term 2	Term 3	Term 4
Whole Numbers • Numbers up to 1000 • Addition & Subtraction (includes 1-step and 2-step word problem) • Multiplication & Division **Fractions** **Money** **Measurement** • Length • Mass • Time • Volume **Geometry** • 2-D & 3-D shapes **Data Representation and Interpretation** • Picture Graphs	**Diagnostic Check 1** Topical review at the end of every topic **Term 1 Review** • Numbers to 1000 • Addition and Subtraction • Length	**Diagnostic Check 2** Topical review at the end of every topic **Term 2 Review** • Multiplication & Division • Multiplication Tables of 2, 5 &10 • Mass • Time **P2 Assessment Plan**	**Diagnostic Check 3** Topical review at the end of every topic **Term 3 Review** • Addition and Subtraction (2-step word problems) • Multiplication Tables of 3 and 4 • Money • Fractions	**Diagnostic Check 4** Topical review at the end of every topic **Term 4 Review** • Volume • Picture Graphs • Shapes

How can I help my child?



How can I help my child ?

Mathematics can be applied in day-to-day living. Encourage your child to think mathematically in everyday life by talking and role-modelling about the ways mathematics can be used at home, at a supermarket or at the playground.

Authentic Mathematics Learning Experiences

Activity	Related Concepts and Skills
Looking for patterns	Whole numbers
Use of Math Vocabulary	Whole numbers / Fraction
Math Games	Whole numbers, Problem-solving
Shopping	Whole numbers, Money, estimation
Art and Craft	Geometry / Classifying shapes
Newspaper articles/brochures	Whole numbers, money

How can I help my child ?

Math Learning Experiences @ Home

Looking for Patterns

Why learn about Patterns?

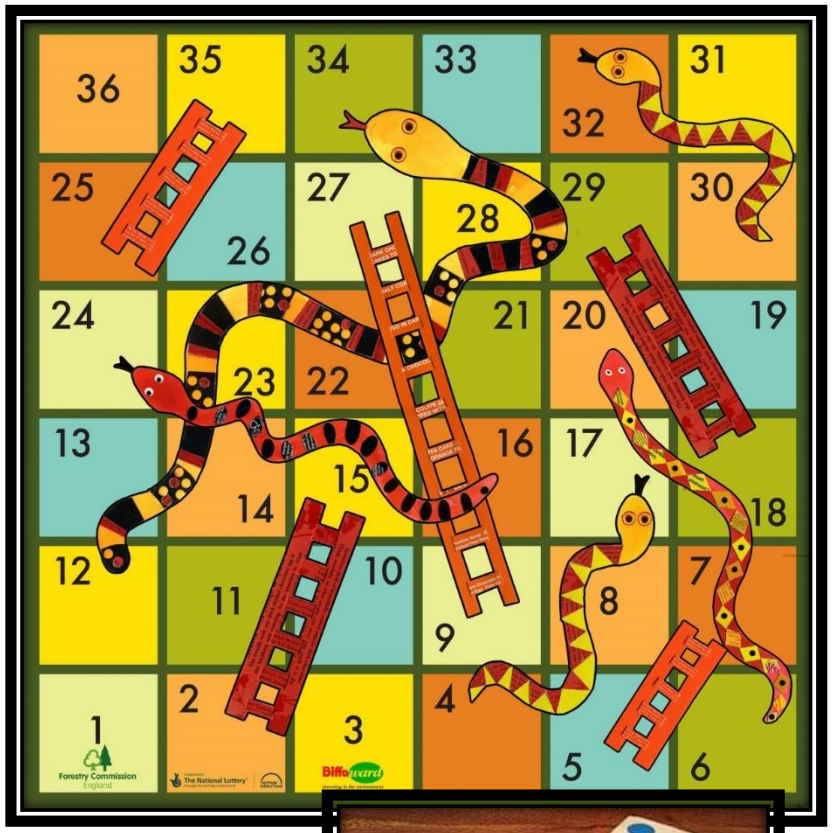
The ability to recognise and create patterns help us to make predictions in our observations through seeing relationships and developing generalisations.

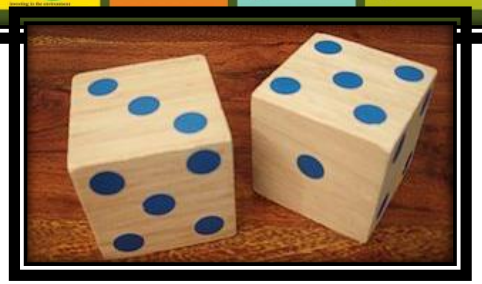
Understanding patterns help prepare children for learning complex number concepts and mathematical operations.

Maths Games


UNO

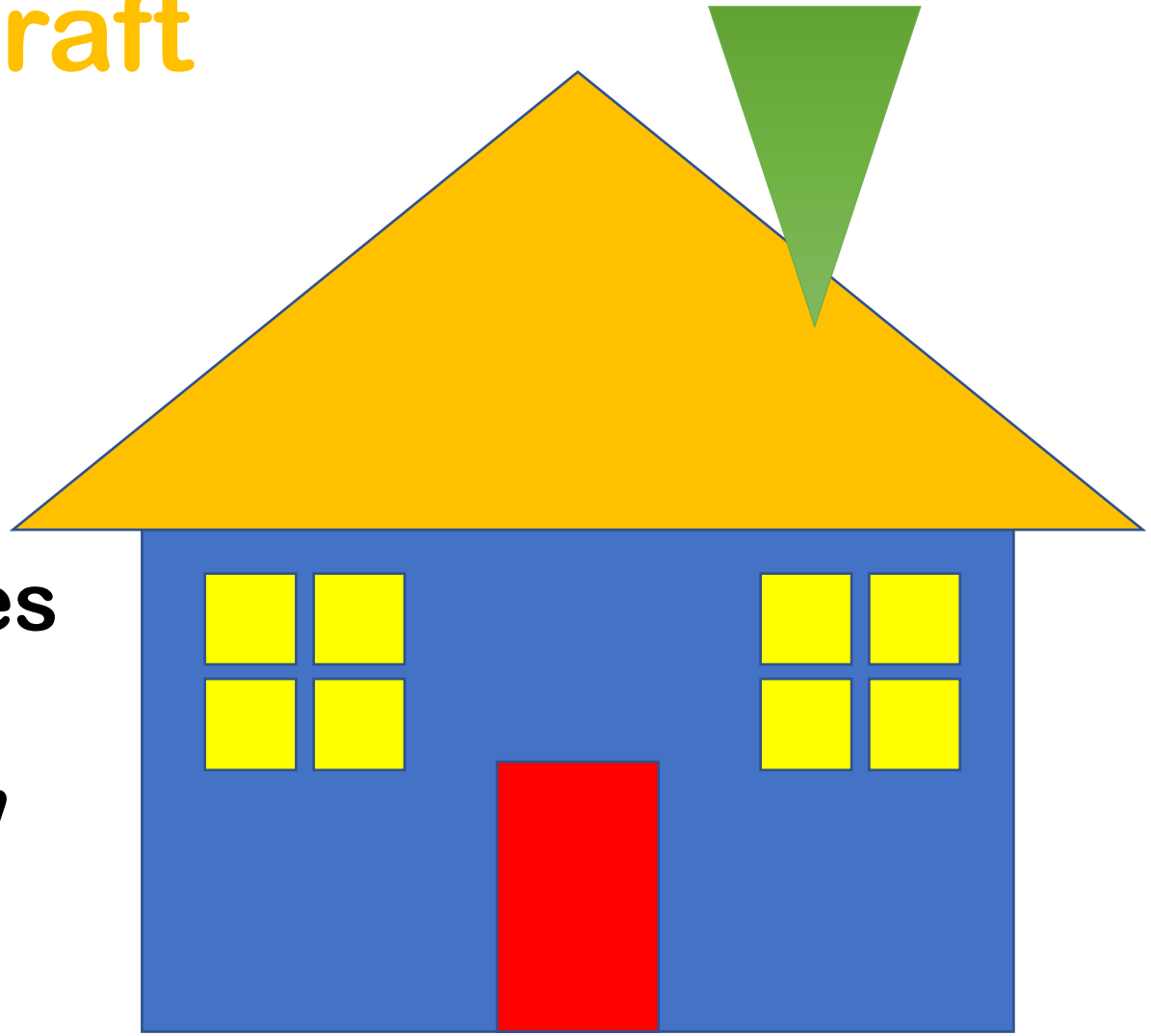

Ventura
MATH BINGO
MATH BINGO
15 28 12
2 64 54 8 7
54 18 35
15 8
0 45 45 18 16
GO!


36
35
34
33
32
31
25
26
27
28
29
30
24
23
22
21
20
19
13
14
15
16
17
18
12
11
10
9
8
7
1
2
3
4
5
6
Forestry Commission
England
The National Lottery
Biffaward



Art and craft

- What picture did you make?
- How many different shapes did you use?
- Can you name them?
- Tell me more about the shapes you had used.
- *Does the size and orientation change the shape?*




Be
Encouraging!

MERIDIAN PRIMARY SCHOOL

Thank You

for Nurturing Future Learners, Future Citizens, Future Leaders Together