



# **Primary 3**

# **Mathematics**

# **Curriculum Information**

2022





# Curriculum



# Objectives

The **Primary Mathematics Syllabus** aims to enable all 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.

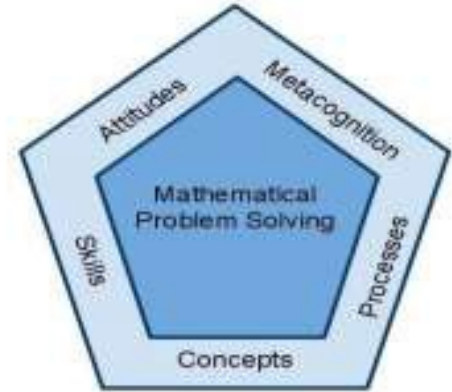


*Love to Learn Maths  
Learn to Love Maths*



# Overview of Syllabus

## Mathematics Syllabus



<https://www.moe.gov.sg/primary/curriculum/syllabus>

Specific topics to be covered are in the  
**Primary 3 Targeting Mathematics Textbooks.**



# Syllabus: Learning Outcomes for P3

## Numbers up to 10 000

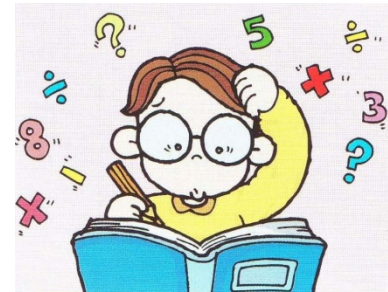
- ☐ Counting in hundreds/thousands
- ☐ Number notation, representations and place
- ☐ Values (thousands, hundreds, tens, ones)
- ☐ Reading and writing numbers in numerals and in words
- ☐ Comparing and ordering numbers
- ☐ Patterns in number sequences



# Syllabus: Learning Outcomes for P3

## Addition and Subtraction

- ❑ Addition and subtraction algorithms (up to 4 digits)
- ❑ Solving up to 2-step word problems involving
- ❑ **Mental calculation** involving addition and subtraction of two 2-digit numbers



# Syllabus: Learning Outcomes for P3

## Multiplication and Division

- ☐ Committing to memory the multiplication tables of 6, 7, 8 and 9
- ☐ Use of the terms 'product', 'quotient' and 'remainder'
- ☐ Multiplication and division within the multiplication tables
- ☐ Division with remainder
- ☐ Multiplication and division of numbers up to 3 digits by 1 digit
- ☐ Solving up to 2-step word problems involving the 4 operations



# Syllabus: Learning Outcomes for P3

## Mental Calculation

- ❑ Addition and subtraction involving two 2-digit numbers
- ❑ Multiplication and division within the multiplication table

### Mental Maths Near Doubles Strategy

When adding numbers that follow each other, use the knowledge of doubles to help add the numbers.

$5 + 6 =$  This is the same as:  
 $5 + 5 + 1 = 11$  or  $6 + 6 - 1 = 11$





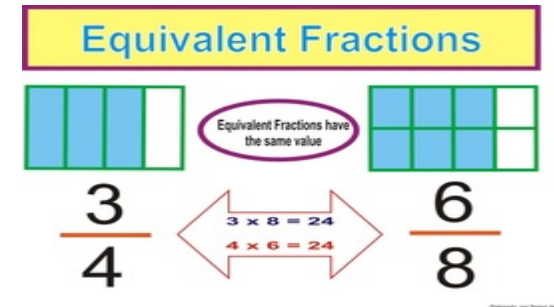
# Syllabus: Learning Outcomes for P3

## FRACTIONS

### Equivalent Fractions

- ☐ Recognising and naming equivalent fractions
- ☐ Listing equivalent fractions of a given fraction
- ☐ Writing the equivalent fraction of a fraction given the denominator or the numerator
- ☐ Expressing a fraction in its simplest form
- ☐ Comparing and ordering unlike fractions

### Addition and Subtraction of Fractions



# Syllabus: Learning Outcomes for P3

## MEASUREMENT

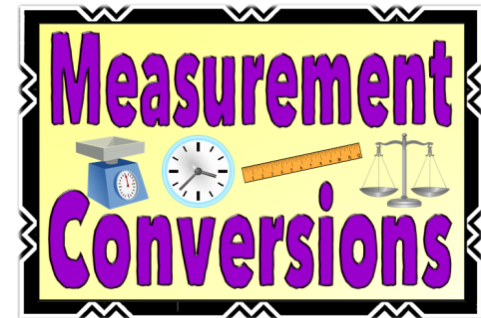
### Length, Mass and Volume

- ❑ Measurement of length in kilometres (km), volume of liquid in millilitres (ml)
- ❑ Measurement of length/mass/volume (of liquid) in compound units



## **MEASUREMENT:** Length, Mass and Volume

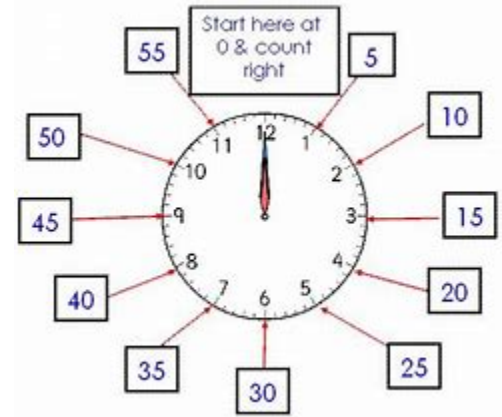
- ❑ Conversion of a measurement in compound units to the smaller unit and vice versa
  - kilometres and metres
  - metres and centimetres
  - kilograms and grams
  - litres and millilitres
  
- ❑ Solving word problems involving length/ mass/ volume/capacity



# Syllabus: Learning Outcomes for P3

## TIME

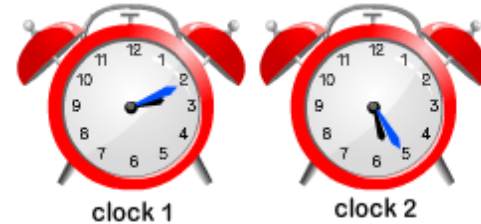
- ☐ Telling and writing time to the minute
- ☐ Use of the terms 'past' and 'to'  
e.g. '10 minutes past 5', '15 minutes to noon'
- ☐ Measurement of time in hours and minutes
- ☐ Conversion of time in hours and minutes to minutes,  
and vice versa



# Syllabus: Learning Outcomes for P3

## TIME

- ☐ Finding the duration of a time interval
- ☐ Finding the starting time/ finishing time
- ☐ Solving word problems involving addition and subtraction of time given in hours and minutes



# Syllabus: Learning Outcomes for P3

## MONEY



- ☐ Addition and subtraction of money in decimal notation
- ☐ Solving word problems involving addition and subtraction of money in decimal notation



# Syllabus: Learning Outcomes for P3

## AREA AND PERIMETER

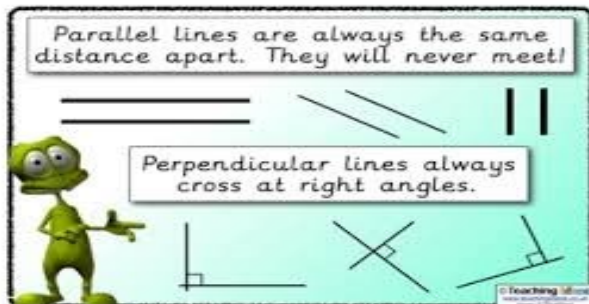
- ☐ Concepts of area and perimeter of a plane figure
- ☐ Measurement of area in square units
- ☐ Measurement of area in square centimetres ( $\text{cm}^2$ ) / square metres ( $\text{m}^2$ )
- ☐ Calculation of the perimeter of rectilinear figures, rectangles, squares
- ☐ Use of formula to calculate the area of a rectangle/ square
- ☐ Solving word problems involving the area/ perimeter of squares and rectangles

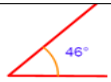
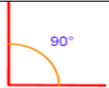
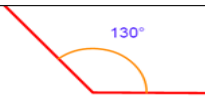


# Syllabus: Learning Outcomes for P3

## GEOMETRY : Angles, Perpendicular and Parallel Lines

- ❑ Identifying and naming perpendicular and parallel lines
- ❑ Drawing perpendicular and parallel lines on square grids
- ❑ Angle as an amount of turning
- ❑ Identifying right angles, angles greater than/ smaller than a right angle



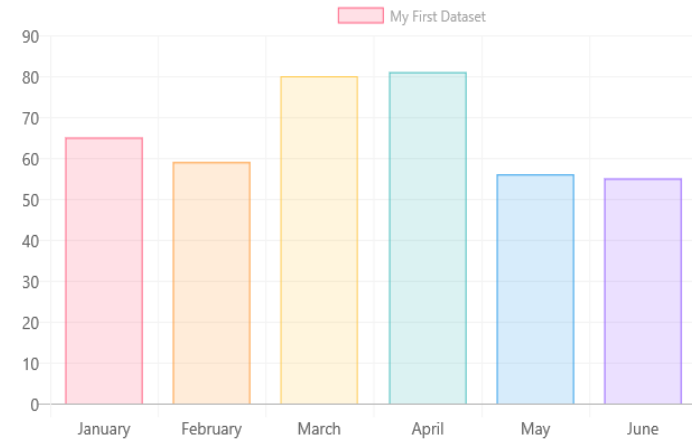
Type of Angle	Description	Example
Acute Angle	An angle that is less than $90^\circ$	
Right Angle	An angle that is exactly $90^\circ$	
Obtuse Angle	An angle that is greater than $90^\circ$ and less than $180^\circ$	





## DATA ANALYSIS

### Bar graphs



- ☐ Reading and interpreting bar graphs in both horizontal and vertical forms, reading scales
- ☐ Completing a bar graph from given data
- ☐ Solving problems using information presented in bar graphs





# Pedagogy

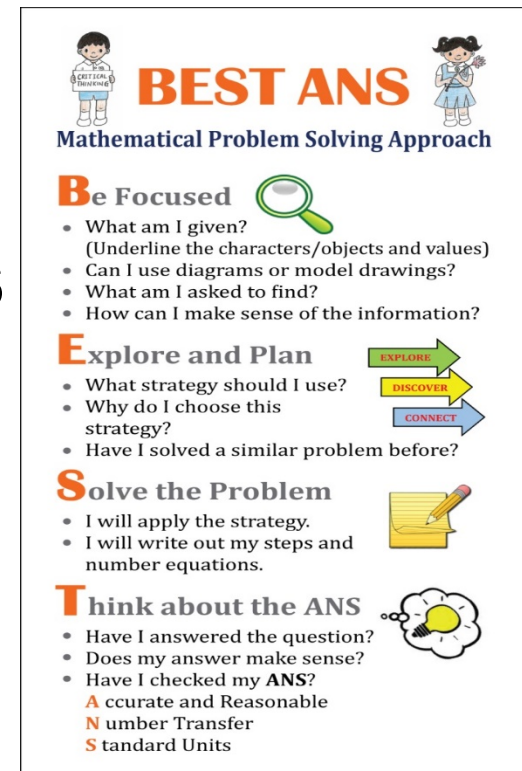


# Learner-centred pedagogy

Teachers will use appropriate pedagogical approaches:

- Concrete-Pictorial-Abstract approach (C-P-A)
- Hands-on learning experiences
- Co-operative learning
- E-learning, SLS Lessons , etc

- Use formative assessment (FA) strategies to monitor and deepen students' learning
- Guide students in using BEST<sup>ANS</sup> problem solving strategy
- Provide Critical Thinking exercises to equip students with problem solving heuristics





# Assessment

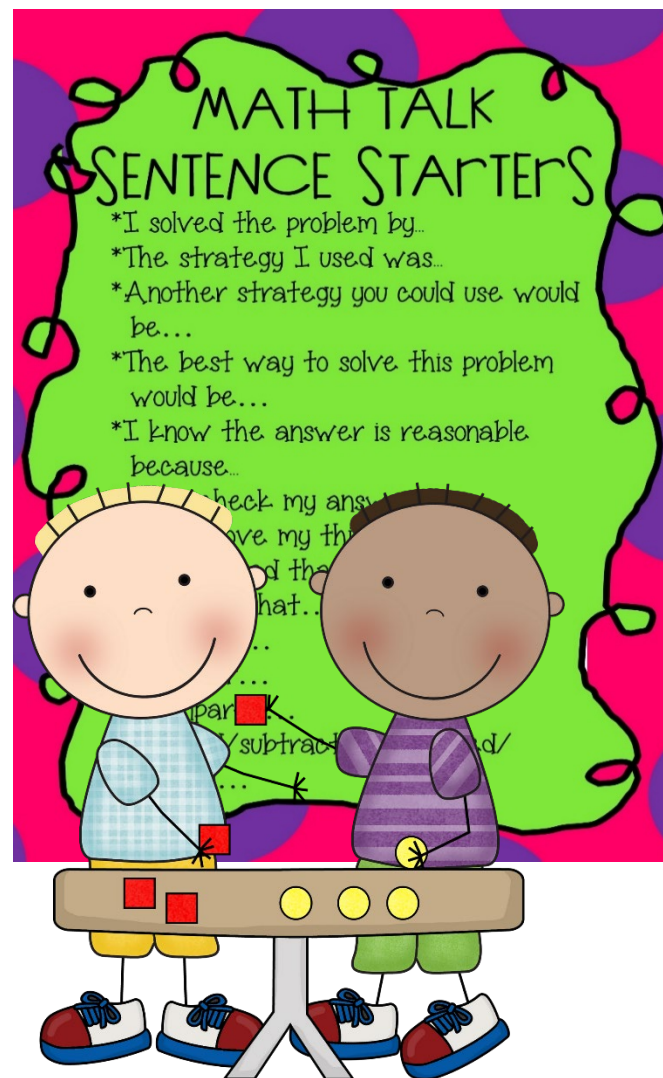
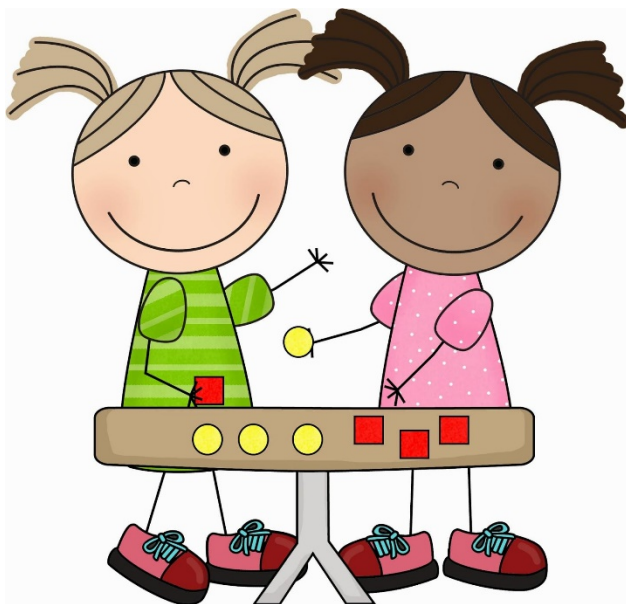


# Informal modes of assessment to gauge students' learning

Maths Talk/Class Discussion

Learning experiences

Collaborative Work



## P3 Formative Assessment

Learning experiences /activities such as:

Using the weighing scale

Measuring volume, length

Completing patterns

Time etc.



# P3 Mathematics School-based Assessment

Components	Weighting
<b>Formative Assessment</b> Journal Hands-on Activities Review Exercises	<b>No Weighting</b>
<b>Weighted Assessments (WA 1 &amp; WA 2)</b>	<b>30%</b>
<b>End-of-Year Examination</b>	<b>70%</b>
<b>Overall</b>	<b>100%</b>





# Primary 3 Mathematics Written Assessment

School-based Assessment	Weighted Assessments	End-of-Year Examination
Weighting	30%	70%
Time-frame	<b>Term 2</b> (WA1 - 15%) <b>Term 3</b> (WA2 - 15%)	<b>Term 4</b>



# Primary 3

## Weighted Assessment: Format

WA 1	Item-Type	Number of Q
	Short-Answer Questions	5
	Long-Answer Questions	5

WA 2	Item-Type	Number of Q
	Multiple Choice Questions	5
	Short-Answer Questions	10



# Primary 3

## End-of-Year Mathematics Examination

Duration : Paper 1 1 hour Paper 2 1 hour  Item Type	Exam Format		
	Marks per question	Number of questions	Marks
Paper 1      MCQs	1	10	10
Short-Answer Questions	1	10	10
Paper 2 Structured/Long-Answer Questions	3	10	30
Total		30	50





# Home-School Partnership



## How can parents help?

Please ensure that your child has mastery in these (P2) topics:

- ☐ Addition & Subtraction
- ☐ Multiplication
- ☐ Length
- ☐ Mass & Volume
- ☐ Time
- ☐ Money
- ☐ Picture Graphs
- ☐ 2-D/3-D Figures
- ☐ Patterns

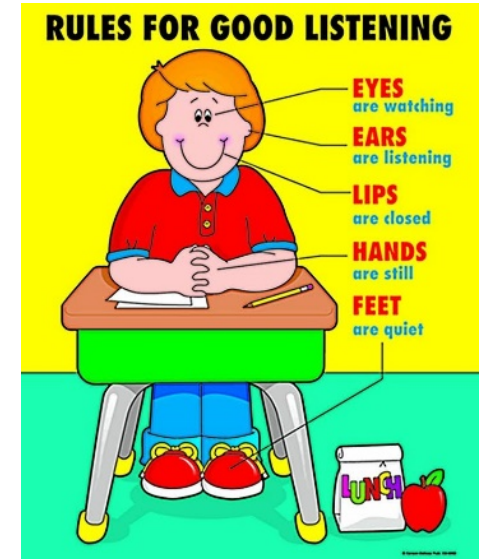


(Details can be found in the P2 textbooks)



## *Instill in your child positive learning attitude and good habits to maximize learning*

- ☑ Behave, Focus and Participate
- ☑ Listen and Speak at appropriate times
- ☑ Be organized
- ☑ Write with good handwriting
- ☑ *Bring necessary **stationery***
- ☑ *Be accustomed to sitting for 1 hour*



## Books for Primary 3

Targeting Maths Textbooks 3A & 3B

Workbooks 3A & 3B

My Pals! Tests 3



Enrichment : TNS Critical Thinking Exercises  
My Pals Test Book Exercises

**Please ensure that your child shows  
you his/her work regularly.**

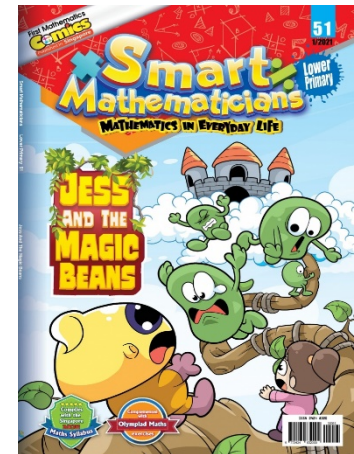


## Recommended **Optional** Supplementary Materials (available from the school bookshop)

*Targeting Maths Companion 3A & 3B*

*My Pals! Homework Book 3A & 3B*

*Amazing Mathematics Book 3A & 3B*



## Smart Mathematician Magazine

## +Venture In Maths! Magazine

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to their Fullest Potential**

