Primary 3 & Primary 4 Assessment and Curriculum Sharing

Mathematics

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- Mathematics Curriculum Framework
- Learning Mathematics at Rivervale
- Strategies to support students in learning Mathematics
- Assessment Matters for Primary 3 & 4 Mathematics

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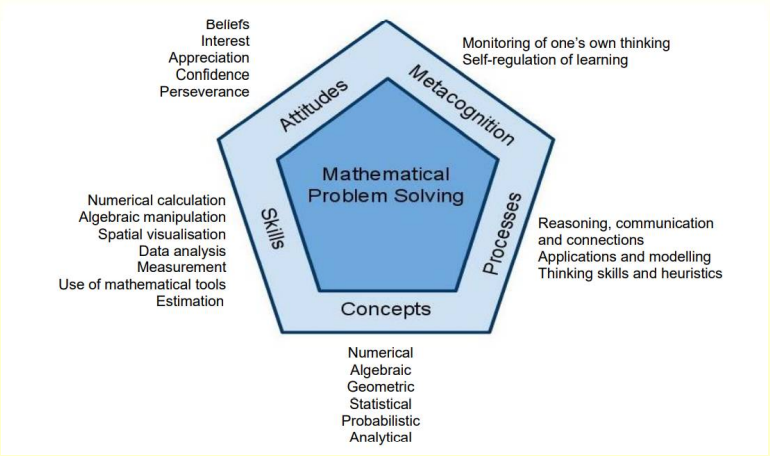
Mathematics Curriculum Framework



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2021 Math Syllabus For Primary 4

Primary 3

- Whole Numbers To 10 000
- Addition & Subtraction
- Money
- Multiplication Tables of 6, 7, 8 & 9
- Multiplication & Division
- More Word Problems
- Bar Graphs
- Angles
- Perpendicular & Parallel Lines
- Fractions
- Length, Mass & Volume
- Area & Perimeter
- Time

Primary 4

- Numbers To 100 000
- Factors & Multiples
- Four Operations of Whole Numbers
- Tables & Line Graphs
- Fractions
- Angles
- Squares & Rectangles
- Decimals
- Four Operations of Decimals
- Pie Charts
- Area & Perimeter
- Nets
- Symmetry

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Learning 

@Rivervale

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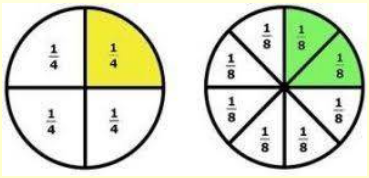
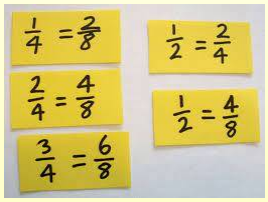
Concrete-Pictorial-Abstract (C-P-A) Approach

Concrete → Pictorial → Abstract





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S	T	A	R
Study the problem (CUB) • Circle the numbers • Underline the keywords • Box up the question	**Think of a strategy** • Draw models • Draw diagrams • Draw a table • Listing • Guess and Check • Act it out • Work backwards • Simplify the problem	**Act out the strategy**	**Review the solution (CURT)** • Calculations • Units • Reasonable • Transference

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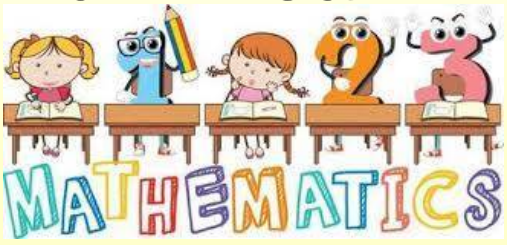
How to support your child in learning



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What Can I Do As A Parent?

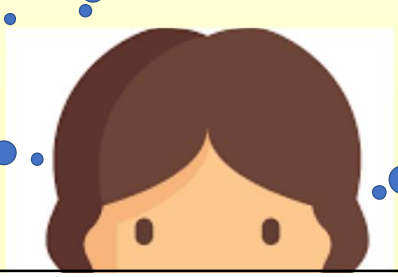
- **Active involvement in child's school work**

Ask your child to talk about and teach you math.

Use math with your child in daily life.

Communicate with your child's teacher.

Promote a positive attitude to math. Develop a growth mindset.



Ensure that homework is completed neatly and all doubts clarified.

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Mathematics Matters In Everyday Life

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Strategies to support students in learning Mathematics

1. **Master basic arithmetic skills – Mathematical Fluency**
2. Practise, practise and practise (and check): Set time limit
3. Review mistakes and LEARN from mistakes:
   misread, transfer error,
   computational/precision errors,
   conceptual understanding
   - E.g.: look through Topical Review worksheets, workbook

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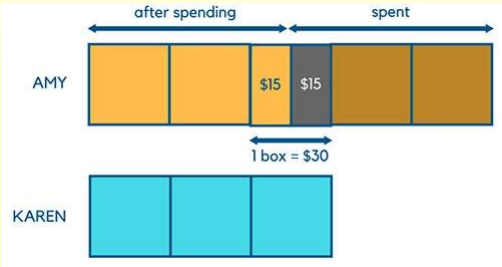
How to study Mathematics?

4. Allow students to struggle in problem solving, focusing on **model drawing** as one of the key tools.



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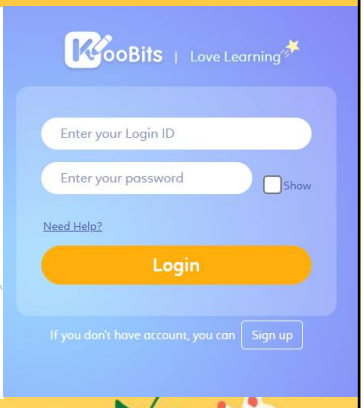
- Encourage self-directed learning



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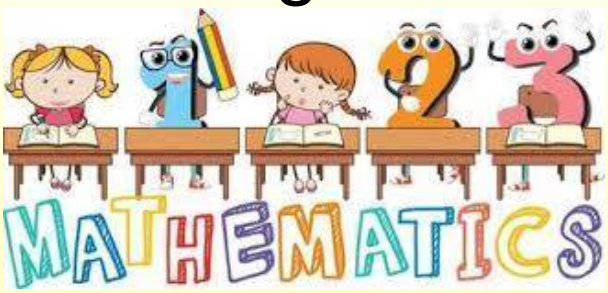
Communicating effectively in



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Concerns on Primary 3 & 4 Whole Numbers

Fluency & Mastery in Multiplication Tables

2 3 4 5 **6 7 8 9** 10

1 x 6 = 6	1 x 7 = 7	1 x 8 = 8	1 x 9 = 9
2 x 6 = 12	2 x 7 = 14	2 x 8 = 16	2 x 9 = 18
3 x 6 = 18	3 x 7 = 21	3 x 8 = 24	3 x 9 = 27
4 x 6 = 24	4 x 7 = 28	4 x 8 = 32	4 x 9 = 36
5 x 6 = 30	5 x 7 = 35	5 x 8 = 40	5 x 9 = 45
6 x 6 = 36	6 x 7 = 42	6 x 8 = 48	6 x 9 = 54
7 x 6 = 42	7 x 7 = 49	7 x 8 = 56	7 x 9 = 63
8 x 6 = 48	8 x 7 = 56	8 x 8 = 64	8 x 9 = 72
9 x 6 = 54	9 x 7 = 63	9 x 8 = 72	9 x 9 = 81
10 x 6 = 60	10 x 7 = 70	~~10 x 8 = 80~~	10 x 9 = 90

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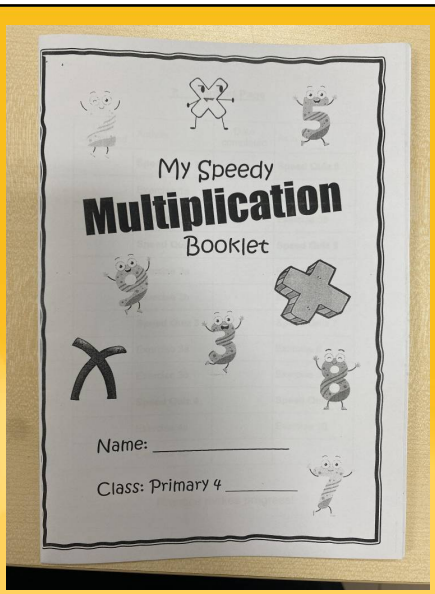

- ✓ Reduce Cognitive load
- ✓ Fast and accurate
- ✓ Solve deeper and more meaningful problems

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Concerns on Primary 4 Whole Numbers

Fluency & Mastery in Multiplication Tables

Factors

36

1 x 36
2 x 18
3 x 12
4 x 9
6 x 6

The factors of 36 are:
smallest 1, 2, 3, 4, 6, 9, 12, 18 and 36 biggest

Multiples

2, 4, 6, 8, 10, 12, ...
3, 6, 9, 12, 15, 18, ...
6, 12, 18, 24, 30, ...

6 is a common multiple of 2, 3, 6

36 is a (common) multiple of 2, 3, 4, 6, 9, 12, 18, 36

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Fractions

Common Errors

Wrong presentation / use of "=" sign

Example 1: When finding equivalent fractions of $\frac{2}{3}$

$\frac{2}{3} \times 2 = \frac{4}{6}$ X

$\frac{2 \times 2}{3 \times 2} = \frac{4}{6}$ ✓

Example 2: $\frac{2}{3} + \frac{1}{6} = ?$

$\frac{2}{3} = \frac{2 \times 2}{3 \times 2} = \frac{4}{6} + \frac{1}{6} = \frac{5}{6}$ X

Correct way?
Break up the steps

$\frac{2}{3} = \frac{2 \times 2}{3 \times 2} = \frac{4}{6}$

$\frac{4}{6} + \frac{1}{6} = \frac{5}{6}$

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Fractions

Common Errors

- **Wrong use of mathematical symbol "=" sign**

$\frac{2}{9}$ of a basket of durians are rotten. If there are 180 rotten durians, how many durians are there in the basket ?

Error : $\frac{2}{9} = 180$

$\frac{1}{9} = 180 \div 2 = 90$

$\frac{9}{9} = 90 \times 9 = \underline{810}$

Total parts = 9 units

2 units = 180
1 unit = 180 ÷ 2 = 90
Total (9 units) = 9 x 90
= 810 ✓

Correct : $\frac{2}{9}$ (of basket) = 180

$\frac{1}{9}$ (of basket) = 180 ÷ 2

= 90

$\frac{9}{9}$ (of basket) = 90 x 9

= 810 ✓

Fractions

Common Errors

- **Misreading /Using the information wrongly**

Mrs Wong had 12 kg of rice. She used ¾ of it. (12 kg)
How much rice had she left?

Common answer:

12 – ¾ = 11 ¼ kg X

[Misread ¾ of it as ¾ kg!]

Correct answer:

Used → ¾ x 12 = 9 kg
Left → 12 – 9 = 3 kg

Alternatively,
Fraction left → 1 – ¾ = ¼
¼ x 12 kg = 3 kg

Assessment Matters for Primary 3 & 4 Mathematics

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Primary 3 Mathematics Format & Duration

Level	Total Marks	Total Number of questions	MCQ / SAQ		LAQ		Duration
			Number of questions	Marks per question	Number of questions	Marks per question	
P3	50	25 - 30	20 - 27	1 - 2	3 – 5	3 – 4	**1 h 30 min**

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Primary 4 Mathematics Format & Duration

Booklets	ITEM TYPE	NO. OF Questions	MARKS PER QUESTION	MARKS PER Section
Section A	MCQ	15	15 x 2 mk	30 mk
Section B	Short-answer	20	20 x 2 mk	40 mk
Section C	Structured/ Long-answer	9	3 or 4 mk	30 mk
TOTAL		44		100 marks

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