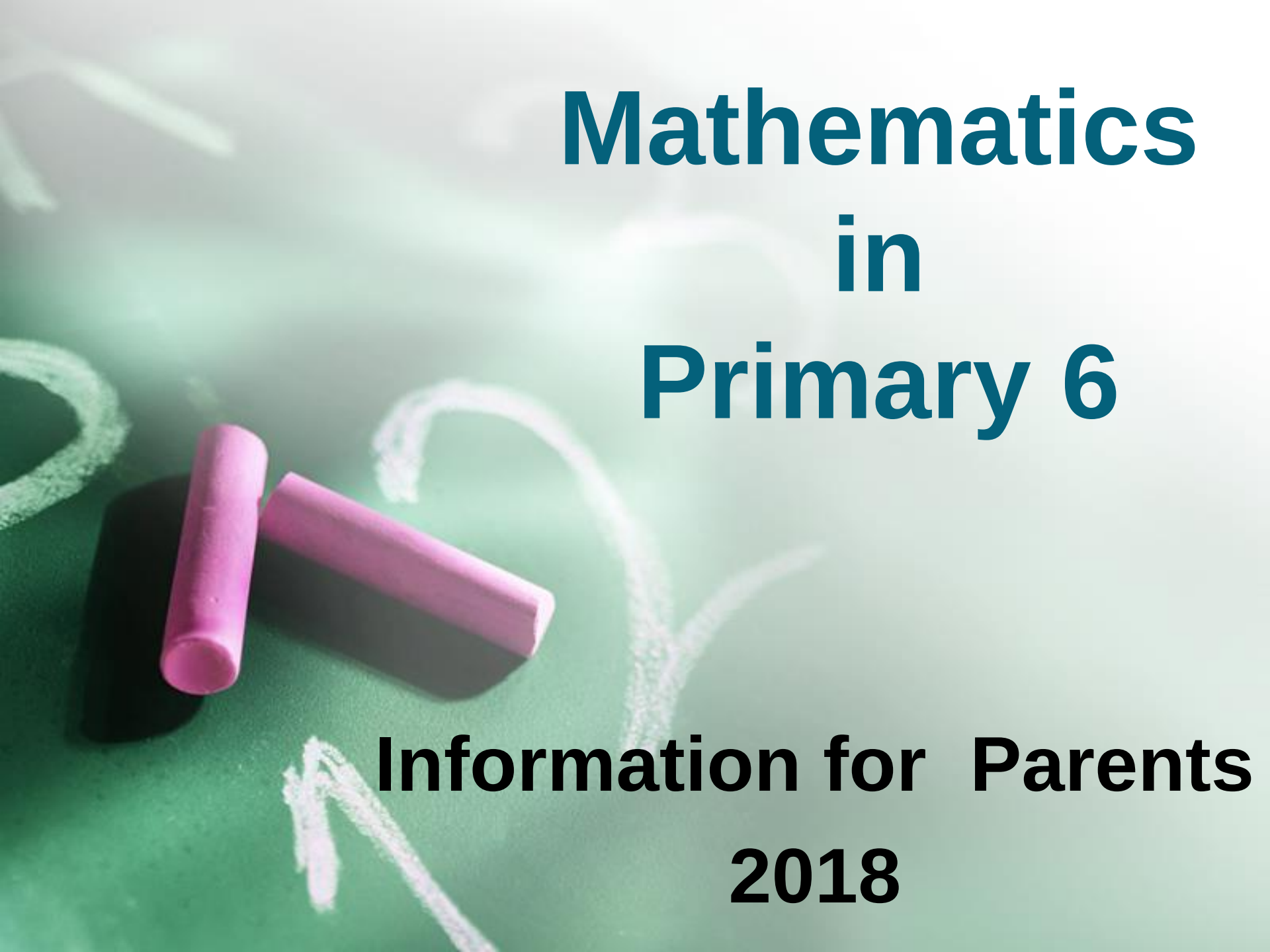


Mathematics in Primary 6

Information for Parents 2018

Aims of Mathematics Education in Singapore

- Acquire and apply mathematical concepts and skills.
- Develop cognitive and metacognitive skills through a mathematical approach to problem solving.
- Develop positive attitudes towards mathematics.

Content Strands in Mathematics Syllabus

- Numbers & Algebra
- Measurement & Geometry
- Statistics

Topics under Numbers & Algebra

- Whole Numbers
- Operations of Whole Numbers
- Fractions
- Ratio
- Decimals
- Four Operations of Decimals
- Percentage

Topics under Measurement & Geometry

- Area of Triangles
- Volume
- Rate
- Angles
- Triangles
- Quadrilaterals

Topics under Statistics

- Average

SEMESTER 1
6A Unit 1 – Algebra
6A Unit 2 – Fractions
6A Unit 3 – Percentage
6A Unit 4 – Ratio
6A Unit 5 – Circles
6A Unit 6 – Angles in Geometrical Figures

SEMESTER 2
6B Unit 1 – Speed
6B Unit 2 – Volume
6B Unit 3 – Pie Charts
6B Unit 4 – Solid Figures

Content to be Assessed at PSLE :

- Whole Numbers; Fractions; Decimals
- Ratio; Percentage
- Rate; Speed
- Algebra
- Measurement
- Geometry
- Statistics

PSLE Mathematics Examination Format

Paper	Booklet	Item Type	No. of questions	No. of marks per question	Total marks	Duration
1	A	MCQ	10 (Q1 – 10)	1	10	1 h
			5 (Q11 – 15)	2	10	
	B	SAQ	5 (Q16 – 20)	1	5	
			10 (Q21 – 30)	2	20	
2		Structured/ LAQ	5 (Q1 – 5)	2	10	1 h 30 min
			12 (Q6 – 17)	3, 4 or 5	45	
Total			47	-	100	2 h 30 min

Math Exam… Key Points to Note

Paper 1 Booklets A & B:

- Calculators **NOT** allowed
  - ✓ basic computational skills required
  - ✓ estimation & mental calculation
- Focus is on **speed & accuracy**

Booklet A: 15 Multiple Choice Questions

- Select answer from the 4 given options and shade selected option in the OAS.

Math Exam...
Key Points to Note

Booklet B: 15 Short Answer Questions

- To show workings clearly and write the correct answers in the spaces provided.
- For 2-mark questions, marks are awarded as shown:

Method	Answer	Mark Awarded
Correct & Shown	Correct	2 marks
Not shown	Correct	2 marks
Correct and Shown	Incorrect	1 method mark may be awarded
Incorrect	Correct	0 marks

- Answers must be given according to the standard units of measurement provided on the answer blanks.

What your child can do & How you can help …

- Master basic computational skills well
- Ensure good mental calculation skills
  → Practise mental calculation in daily life
- Work with **speed & accuracy**
- Teach possible shortcuts
  Example:

7 x 8 x 5		7 x 8 x 5
= (7 x 8) x 5	vs	= 7 x (8 x 5)
= 56 x 5		= 7 x 40

- Use the most efficient method

Math Exam…
Key Points to Note

Paper 2:

- questions that require students to apply concepts or skills learnt in both familiar and unfamiliar scenarios
- Calculators allowed
  - ✓ Focus on problem solving
  - ✓ More authentic scenarios & data can be used

Paper 2: CALCULATORS ALLOWED

5 Short Answer Questions

- To show workings clearly and write the correct answers in the spaces provided.
- Marks will be awarded similarly to Paper 1 Booklet B.

12 Problem Sums

- To show each step taken (number equations) and solutions clearly so that method marks can be awarded accordingly.
- Method marks will be awarded for each correct significant step of the solutions even if the final answer is wrong.
- Where applicable, standard units of measurement must be indicated with final answers.

What your child can do & How you can help …

- Read the questions carefully, sentence by sentence.
- Highlight and tease out the information given from each sentence, then put the information together to obtain a better picture.
- Use the most efficient method.
- Show the method of solution (i.e. workings or number equations) used clearly and neatly.

Tips to tackling Word Problems:

- Have a positive attitude
- Be open to alternative methods of solving the Math problems
- Adopt a problem-solving process:
  - Polya's
    1) Understand
    2) Plan ~ *strategies to solve problem sums*
    3) Solve
    4) Check ~ *calculation error*
       ~ *use of important information*
       ~ *the answer should make sense*
       ~ *units is stated (if required)*
- *Persevere*

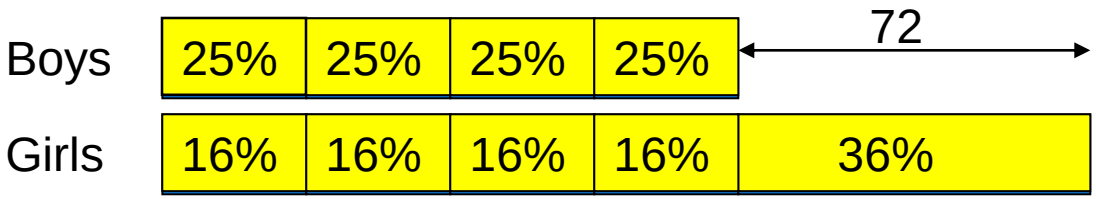
Problem Solving Heuristics

Commonly used:

- Draw a model or diagram
- Make a systematic list/ tabulation
- Use before / after concept
- Look for a pattern
- Guess and Check
- Supposition
- Work Backwards
- Algebraic method
  - no penalty for its use
  - must solve the equation or else limited marks will be awarded

Presentation of Solutions

25% of the boys in a hall is equal to 16% of the girls. There are 72 more girls than boys. How many children are there in the hall?



36% of girls = 72

64% of girls = (72 ÷ 36) x 64

= 128

128 x 2 + 72 = 328

Ans: 328

Presentation of Solutions

- Include units of measure

  $\frac{3}{5}$ x 100**%** = 60**%**

  3 **kg** x 4 = 12 **kg**

- Use equal signs correctly

  $\frac{1}{2}$ of total amount = $45

- Show the method of solution (i.e. workings or number equations) clearly.

- **Write answers in the answers line provided.**
- **Standard units of measurements must be included in the final answer.**

Partnership with the school…

- Ensure that your child completes his homework daily.
- Encourage you child to attempt all questions in daily assignments even if he has absolutely no idea how to do it.
- Be cool. Avoid jumping to his rescue when he cannot solve a problem. Guide him through by getting him to verbalise and analyse his thoughts on how he can approach the question.
- Review mistakes made. Cover solution and re-attempt the question.

Partnership with the school…

- Practice Papers from school...
  - Ensure conducive working environment.
  - Insist that your child stick to the given time frame…nothing more and nothing less.
  - Good time management practice.

As a pillar of strength and support for your child…

- Praise, encourage and motivate
- Strategize – focus on areas of weaknesses
- Time Management
- **Ensure that mistakes made are corrected**
- **Exposure to Non-routine problems**
- More math…in other forms
  - Math Games → Coolmath.com
  - Math Literature → Math magazines
  - Daily life
- **Manage stress** – watch for change in behaviour

Best wishes

for the PSLE!!!