



Primary 6

Mathematics

Curriculum Information

2024



Curriculum



Love to Learn Maths
Learn to Love Maths



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.

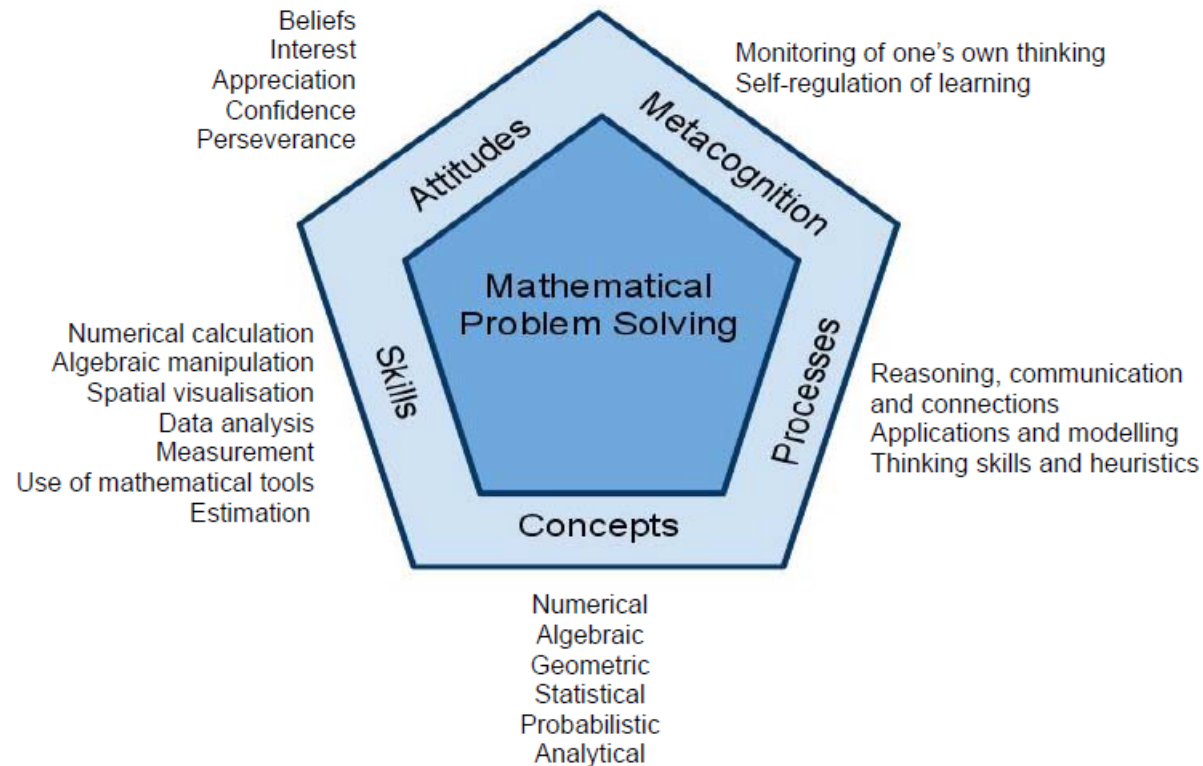


*Love to Learn Maths
Learn to Love Maths*



Mathematics Syllabus

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



Standard Mathematics and Foundation Mathematics

- The P1 - P4 syllabus is common to all students.
- The P5 - P6 Standard Mathematics syllabus continues the development of the P1 - P4 syllabus, whereas the P5 - P6 Foundation Mathematics syllabus re-visits some of the important concepts and skills in the P1 - P4 syllabus.
- The new concepts and skills introduced in Foundation Mathematics is a subset of the Standard Mathematics syllabus



@ PRIMARY 4

Student sits for school-based examinations

School recommends a subject combination based on the student's results.

Parents fill up an option form indicating the preferred combination.

@ PRIMARY 5

Student takes subject combination chosen by parents

English Language, Mathematics, Science and Mother Tongue Language are available at standard and foundation levels.

Higher Mother Tongue Language is also available.

School assesses student's ability to cope with the current subject combination at the end of the year. Adjustments to the number of standard and foundation subjects can be made, if necessary.

@ PRIMARY 6

Student takes subject combination decided by his school and sits for the Primary School Leaving Examination (PSLE) at the end of Primary 6.

Some students are offering **Foundation Mathematics**.

This enables them to focus on building up strong fundamentals in the subject and better prepares them for progression to secondary school.





Pedagogy



Love to Learn Maths
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TAO
Established in 1904

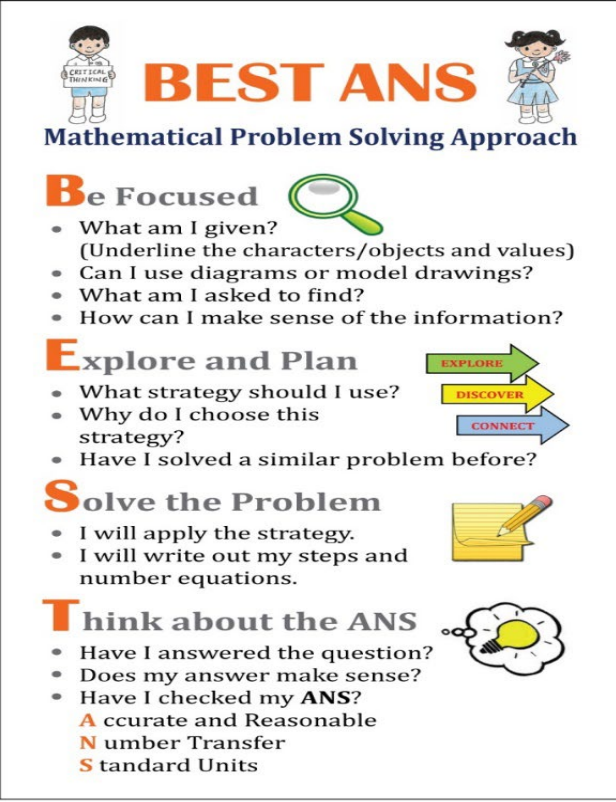


Learner-centred pedagogy


Teachers will use appropriate pedagogical approaches:

- Concrete-Pictorial-Abstract approach (C-P-A)
- Hands-on learning experiences
- Co-operative learning, opportunities for collaborative work
- Differentiated Instruction (DI - Content, Process, Product)
- E-learning, SLS Lessons , etc


- Informal Formative Assessment (FA) strategies to monitor and deepen students' learning
- Guide students in using BEST^{ANS} problem solving strategy
- Provide Critical Thinking exercises to equip students with problem solving heuristics




BEST ANS
Mathematical Problem Solving Approach

Be Focused 


- What am I given?
(Underline the characters/objects and values)
- Can I use diagrams or model drawings?
- What am I asked to find?
- How can I make sense of the information?

Explore and Plan 

- What strategy should I use?
- Why do I choose this strategy?
- Have I solved a similar problem before?

Solve the Problem 

- I will apply the strategy.
- I will write out my steps and number equations.

Think about the ANS 

- Have I answered the question?
- Does my answer make sense?
- Have I checked my ANS?

Accurate and Reasonable
Number Transfer
Standard Units



Assessment



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Informal modes of assessment to gauge students' learning

Maths Talk/Class Discussion

Learning experiences

Mathematics Project

Collaborative Work



Lana
I know $6+6=12$
(doubles)
So 1 more is 13.
 $6+6=12$
 $12+1=13$
So $10+3=13$
 $10+3=13$
So $0=3$

Josh
 $6+7$
 $4+3$
 $10+3=13$
I already have 10, so we only need 3 more.
 $0=3$

Kate
 $6+7=13$
 $10+3=13$
 $0=3$



P6 Mathematics School-based Assessment

Preliminary Examination

100%

Term	Assessment
2	Common-Timed Practice (non-weighted)
3	Preliminary Examination
4	PSLE



P6 Standard Mathematics Prelim/PSLE Format

	Number of questions	Marks per question	Number of Marks	Duration	
Paper 1 Booklet A MCQ	10	1	10	Paper 1 Booklet A & B 1 hour No calculators	
	5	2	10		
	Booklet B Short-answer Q	5	1		5
		10	2		20
Paper 2 Short-answer Q	5	2	10	Paper 2 1 h 30 min The use of calculators is allowed.	
	Structured/ Long-answer Q	12	3, 4 or 5		45
		Total	47		-



P6 Standard Mathematics Examination Format

1. Both papers will be scheduled on the same day with a break between the two papers.
2. **Paper 1** comprises two booklets.
The use of calculators is **not** allowed.
3. **Paper 2** comprises one booklet.
The use of calculators is allowed.



Item Types

Multiple-Choice Question

For each question, four options are provided of which only one is the correct answer.

The 1-mark multiple-choice questions will be straightforward questions that assess basic concepts and skills of the Primary Mathematics syllabus.

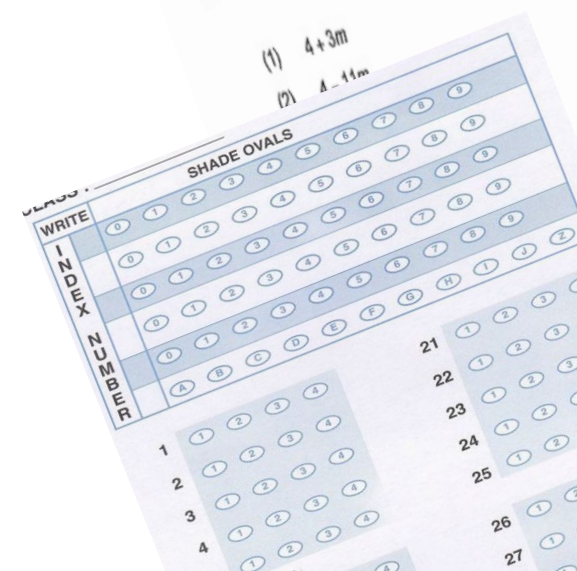
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

1. What does the digit 8 stand for in 5 068 134?

- (1) 8 tens
- (2) 80 tens
- (3) 800 tens
- (4) 8 000 tens

2. Simplify $12 + 7m - 8 - 4m$

- (1) $4 + 3m$
- (2) $4 - 11m$



Item Types

1-mark Short-Answer Question

For each question, a candidate has to write his answer in the space provided.

Marks are awarded for correct answers.

Any unit required in an answer is provided and a candidate has to give his answer in that unit.

The 1-mark short-answer questions will be straightforward questions that assess the basic concepts and skills of the Primary Mathematics syllabus.



2-mark Short-Answer question

The question may comprise one or two parts. For each question, a candidate has to write his answer(s) in the space(s) provided.

Marks are awarded as follows:

For questions with two parts, 2 marks are awarded for the correct answers, one mark for each part.

For questions with one part only, 2 marks are awarded for the correct answer.

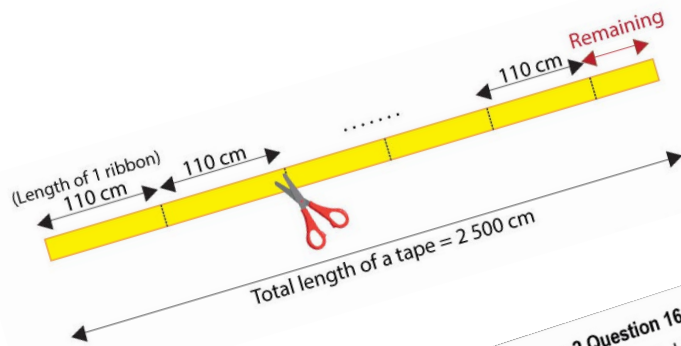
If an incorrect answer is given, 1 mark is awarded for the correct method or working shown.

Any unit required in an answer is provided and a candidate has to give his answer in that unit.



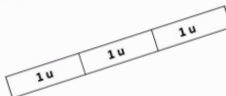
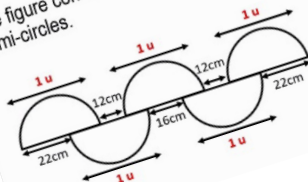
Structured / Long-answer Question

For each question, a candidate has to show his method of solution (working steps) clearly and write his answer(s) in the space(s) provided.



PSLE 2019 Paper 2 Question 16 (a)

The figure consists of 5 semi-circles as shown below. Find the diameter of one of the semi-circles.



PSLE Question



- Figures
- White triangles
- Grey triangles
- Total
- a) Fill in the graph above (1m)
- b) Find the total number of grey and white triangles for Figure 250 (1m)
- c) Find the percentage of grey triangles in Figure 250 (2m)

Answer

- Do part (a) and part (b) together. Notice that total number of triangles is just figure number $n \times n$.
- Figure number $n \times n$
- Figure 250 has 250 x 250 = 62 500 triangles
- Part c is more difficult. To help think we should extend the table quite a bit.
- | Figure | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------------|---|---|----|----|----|----|----|-----|-----|-----|
| White triangles | 1 | 4 | 9 | 16 | 25 | 36 | 49 | 64 | 81 | 100 |
| Grey triangles | 0 | 1 | 4 | 9 | 16 | 25 | 36 | 49 | 64 | 81 |
| Total | 1 | 5 | 13 | 25 | 41 | 61 | 85 | 113 | 145 | 181 |
3. Notice the pattern.
4. For Figure 250, number of grey is $125 \times 251 = 31375$
- Percentage grey = $31375 / 62500 = 50.2\%$

Foundation Mathematics Prelim/PSLE Format

	Number of questions	Marks per question	Number of Marks	Duration
Paper 1 Booklet A MCQ	10	1	10	Paper 1 Booklet A & B 1 hour No calculators
	10	2	20	
	Booklet B Short-answer Q	10	2	
Paper 2 Short-answer Q	10	2	20	Paper 2 1 hour The use of calculators is allowed.
Structured Q	6	3 or 4	20	
Total	46	-	90	



P6 Foundation Mathematics Examination Format

1. Both papers will be scheduled on the same day with a break between the two papers.
2. Paper 1 comprises two booklets.
The use of calculators is **not** allowed.
3. Paper 2 comprises one booklet.
The use of calculators is allowed.



P6 Foundations Mathematics Examination Format

Item Types

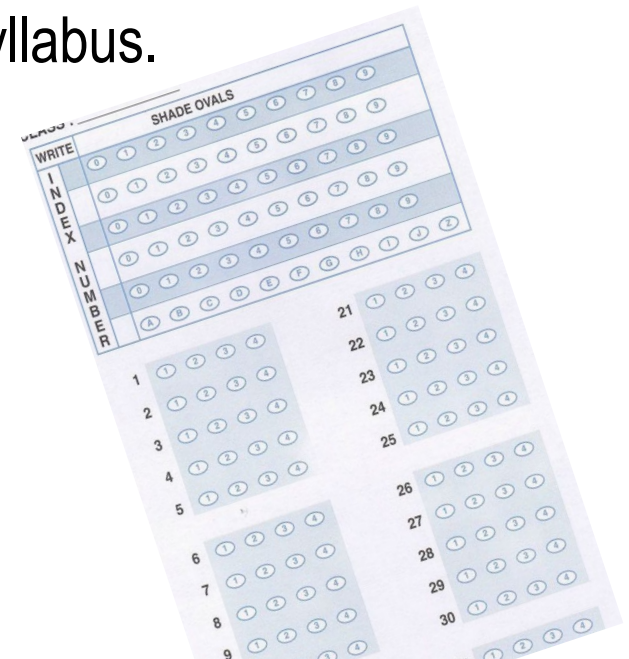
Multiple-Choice Question

For each question, four options are provided of which only one is the correct answer.

The 1-mark multiple-choice questions will generally be short, simple and straightforward questions that assess basic concepts and skills of the Primary Foundation Mathematics syllabus.

1. What does the digit 8 stand for in 5 068 134?

- (1) 8 tens
- (2) 80 tens
- (3) 800 tens
- (4) 8 000 tens



Item Types

Short-Answer Question

The question may comprise one or two parts. For each question, a candidate has to write his answer(s) in the space(s) provided.

Marks are awarded as follows:

For questions with two parts, 2 marks are awarded for the correct answers, one mark for each part.

For questions with one part only, 2 marks are awarded for the correct answer.

If an incorrect answer is given, 1 mark is awarded for the correct method or working shown.

Any unit required in an answer is provided and a candidate has to give his answer in that unit.

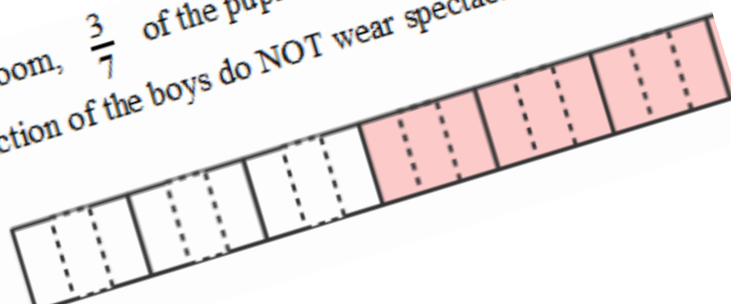


P6 Foundations Mathematics Examination Format

LAQ or Structured question

For each question, a candidate has to show his method of solution (working steps) clearly and write his answer(s) in the space(s) provided.

In a classroom, $\frac{3}{7}$ of the pupils are boys. $\frac{5}{9}$ of the boys
What fraction of the boys do NOT wear spectacles?



Use of Calculators

*Only calculators that are **approved** by the **Singapore Examinations & Assessment Board (SEAB)** will be allowed in the examination.*

The calculator must be:

- silent, with a visual display only.
- indicated clearly with the model number and brand for verification purposes.
- in working condition (including the power supply).
This is the responsibility of the candidate.
- Your child **cannot share** calculators with other candidates during the examination.
- (More details are given in the “PSLE Instructions for Candidates”.)

Our students are using the following models:

CASIO fx 97SG X

CASIO fx 96SG PLUS



	School-based
1	FunMath@Class Activities
2	P6 Mathematics Quiz



Mathematics Competitions - Optional

For interested students

(registration required, self-funded, details will be given at a later date)

1	Visual-Spatial Mathlympics by Learners' Connection
2	RI Mathematics Contest by RI
3	SMOPS by HCI





Home-School Partnership



How can parents help?

Please ensure that your child has a good mastery of the basic concepts and skills (learnt in P4 & P5) for the following topics:

- Whole Numbers
- Fractions
- Ratio
- Decimals
- Geometry
- Measurement
- Data Analysis

***Details can be found in the P4 & P5 textbooks and materials**

How can parents help?



- ❑ **Monitor & ensure that your child** does his schoolwork so that he has sufficient practice to acquire the necessary procedural skills, accuracy and speed



- ❑ **Regularly check your child's books/file**
 - My Pals Maths Test Book 6
 - Critical Thinking Booklet A, B, C & D
 - STRETCH Book 5
 - PSLE (2020-2022) Books
 - SMA Book, FMA Book
 - Supplementary Worksheets, PSLE Practice Papers



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

My Pals! Homework Book 6A & 6B

A Maths Problem Booklets*

STRETCH Mathematics Book 6

Smart Mathematician Magazine

Subscription:

<https://youngscientistsreader.com.sg>



Encourage your child to develop good work habits

- Overall presentation demonstrating good understanding of Mathematics concepts required to complete task
- Good handwriting
- *Complete written task*
- *Solve problems with accuracy*
- *Bring the necessary stationery*
 - ➔ *Pen, pencil, ruler, eraser, mathematical set, calculator*
- Use of correction tape is **not** allowed



*Aa Bb Cc Dd Ee Ff Gg Hh
Ii Jj Kk Ll Mm Nn Oo Pp
Qq Rr Ss Tt Uu Vv Ww Xx
Yy Zz 0 1 2 3 4 5 6 7 8 9*



How can parents help?



Discourage over-dependence on the use of calculators to ensure that your child is able to perform important computational skills with accuracy and speed.



Get your child accustomed to sitting and focusing for a period of at least 1h 30 min





Parents' Support

Parents play an important role
in fostering the
Joy of Learning.

Support your child in developing
dispositions for **lifelong learning.**



In Partnership with Parents to Develop your child to their Fullest Potential: Every child a Creator, Connector, Contributor

