



Primary 6 Mathematics





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Aims Of The Maths Curriculum

- 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





Approaches To Teaching & Learning

- Mathematics In Modules (M²P)
- Teaching of Problem-solving & Heuristic Skills
- Journal Writing
- Supplementary Lessons
- Use of ICT (for feedback & e-pedagogy)
- Use of Formative Assessment





Approaches To Teaching & Learning (Mathematics In Modules - M²P)

- The objective is to enable Mathematics to be taught in a more focused and in-depth manner.
- In M²P, topics covered in both P5 and P6 will be restructured and taught as modules.
- The Mathematics Scheme-of-work has been re-designed with the teaching of the various topics carefully paced out.





Approaches To Teaching & Learning (Mathematics In Modules - M²P)

Standard P5 / P5 Mathematics Syllabus			
P5 Topics		P6 Topics	
1.	Whole Numbers	1.	Algebra
2.	Fractions 1	2.	Fractions 2
3.	Area Of Triangles	3.	Ratio 2
4.	Ratio 1	4.	Percentage 2
5.	Volume 1	5.	Volume 2
6.	Decimals	6.	Triangles & 4-Sided Figures 2
7.	Percentage 1	7.	Circles
8.	Rate	8.	Speed & Time
9.	Average	9.	Pie Charts
10.	Angles	10.	Solid Figures & Nets
11.	Triangles & 4-Sided Figures 1		





Approaches To Teaching & Learning (Mathematics In Modules - M²P)

Mathematics In Modules Syllabus			
P5 Topics (2021)		P6 Topics (2022)	
1.	Whole Numbers	1.	Algebra
2.	Fractions 1	2.	Percentage 1 & 2
3.	Area Of Triangles	3.	Fractions 2
4.	Ratio 1	4.	Ratio 2
5.	Decimals	5.	Circles
6.	Average	6.	Speed & Time
7.	Angles	7.	Pie Charts
8.	Triangles & 4-Sided Figures 1	8.	Triangles & 4-Sided Figures 2
9.	Rate	9.	Solid Figures & Nets
10.	Volume 1 & 2		





Approaches To Teaching & Learning (Teaching of Problem-solving & Heuristics Skills)

- Problem Solving - The process in which a person who is faced with a mathematical problem applies mathematical concepts, skills and process to solve the problem
- Heuristics - Methods that guide pupils to solve mathematical problems systemically by learning from past experiences and investigating practical ways.





Approaches To Teaching & Learning (Teaching of Problem-solving & Heuristic Skills)

Problem-solving & Heuristic skills taught at P6 :

- Remainder Concept
- Unchanged Variable
- Comparing Fractions of Parts (Stack Models)
- Replacement Concept
- Excess & Shortage
- Fractions of Sets & Whole
- Units & Values





Approaches To Teaching & Learning (Challenging Problem-Solving)

- To further stretch the potential of pupils who have the ability to excel in the subject.
- Solving of higher-order, non-routine Maths questions.





Approaches To Teaching & Learning (Journal Writing)

- A communication tool between the pupil and the teacher.
- Reveals pupils' learning of knowledge and skills
- Serves as a tool for teachers to find out pupils' learning gap so that follow-up actions can be taken.





Approaches To Teaching & Learning (Journal Writing - Example)

Without solving the addition and subtraction of the given fractions and mixed numbers, how can you tell that these answers are wrong? Explain.

$\frac{5}{6} + \frac{1}{4} = \frac{6}{10}$ $2\frac{4}{8} - 1\frac{1}{2} = 1\frac{3}{6}$





Approaches To Teaching & Learning (Supplementary Lessons)

- Supplementary Lessons are conducted for all pupils from Term 1 to help bridge their learning gaps and to help prepare pupils for the PSLE.





Approaches To Teaching & Learning (Use of ICT)

- ICT is used to enhance the teaching & learning of Mathematics
- Microsoft Excel & Singapore Students Learning Space(SLS)





Assessment

(Purpose of Assessment)

- To gather evidence about pupils' knowledge of Mathematics
- To ascertain whether learning has taken place
- To provide parents with information on their children's achievement





Assessment (Modes of Assessment)

Formative Assessment (On-going)	Summative Assessment
<ul style="list-style-type: none">• Questioning & Feedback• Journal Writings• Evidence from pupils' work• Group/Class Presentations• Performance Tasks• Peer / Self Evaluation• Reviews	<ul style="list-style-type: none">• Mid-Year Examinations (MYE)• Preliminary Examinations• PSLE





Assessment (Assessment Plan)

Term 1	Term 2	Term 3	Term 4
Conditioning Exercise	Mid-Year-Exam (EYE)	Preliminary Exam	PSLE





Assessment

Format of Paper(Standard Mathematics)

Paper	Booklet	Item Type	No. of Qn	No. of marks per Qn	Weighting	Duration
1 (45 %) No calculators allowed	A	MCQ	10	1	10 %	1 h
			5	2	10 %	
	B	Short-Ans	5	1	5 %	
			10	2	20 %	
2 (55 %) Calculators Allowed		Short-Ans	5	2	10 %	1 h 30 min
		Structured / Long-Ans	12	3,4,5	45 %	





Assessment

Format of Paper(Foundation Mathematics)

Paper	Booklet	Item Type	No. of Qn	No. of marks per Qn	Weighting	Duration
1 (50 %) No calculators allowed	A	MCQ	10	1	10 %	1 h
			10	2	20 %	
	B	Short-Ans	10	2	20 %	
2 (40 %) Calculators Allowed		Short-Ans	10	2	20 %	1 h
		Structured / Long-Ans	6	3,4	20 %	





Use of The Calculator

- To achieve a better balance between the emphasis on computational skills and problem solving skills in teaching and learning and in assessment
- To widen the repertoire of teaching and learning approaches to include investigations and problems in authentic situations
- To help pupils, particularly those with difficulty learning mathematics, develop greater confidence in doing mathematics





Use of The Calculator

The introduction of calculators.....

- will not take away the importance of mental and manual computations. These skills are still emphasized as pupils need to have good number sense and estimation skills to check the reasonableness of answers.
- does not mean that a tougher paper will be set.





Teaching & Learning Resources

- Targeting Maths (Course Books & Activity Books)
- Problem-Solving & Heuristic Skills Booklet
- Challenging Problem-Solving Worksheets (Selected classes)
- Practice Papers
- Supplementary Worksheets
- PSLE Past Year Papers





How Parents Can Help

- Help to reinforce concepts learnt in lower levels
- Encourage your child to develop good work habits
 - Neatness & good handwriting
 - Complete written task
 - Solve problems with accuracy
 - Persevere through challenging & unfamiliar sums
- Ensure your child has regular & sufficient practices
- Discourage over-dependence on the use of calculators





CHIJ Our Lady of the Nativity
Simple in Virtue, Steadfast in Duty

