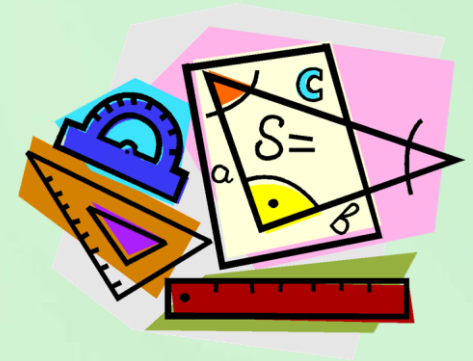


# Mathematics

*3 January 2023*



Mdm Chai Huel Leng  
HOD Math



*Resilience, Innovation, Integrity, Care, Collaboration and Excellence*

# VISION

Every student a thinker and a resilient problem solver

# MISSION

- To build a strong mathematical foundation in students.
- To foster the joy in the learning of Mathematics.
- To engage students through various learning experiences.
- To develop reasoning and communication skills in students.
- To give students opportunities to appreciate and apply mathematics in real life context.

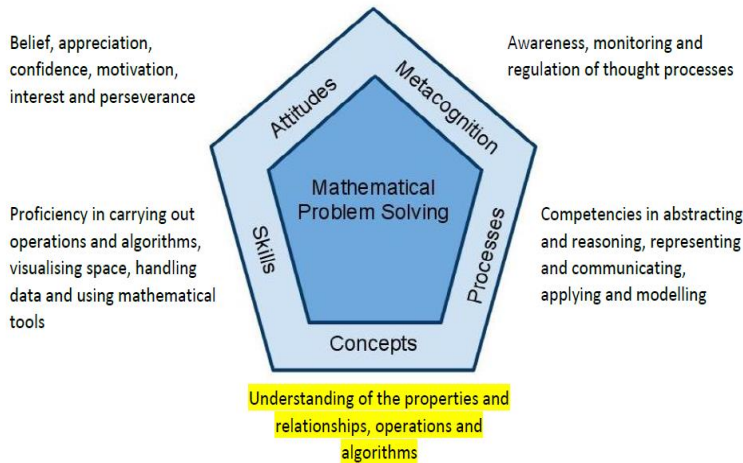


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# Aims of P1 Mathematics

## Laying a Strong Foundation for Mathematics

Mathematics Curriculum Framework



Source: 2021 Primary Math Syllabus

1. *Acquire mathematical concepts and skills for everyday use and continuous learning in Mathematics*
2. *Develop thinking, reasoning, communication, application and metacognitive skills through a Mathematical approach to problem solving*
3. *Build confidence and foster interest in Mathematics*



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# Content Sequence for P1 Textbooks

Semester 1	<b>Term 1</b> Numbers to 10 Addition up to 10 Subtraction up to 10 Shapes Ordinal Numbers	<b>Term 2</b> Numbers to 20 Addition & Subtraction up to 20 Picture Graphs Numbers to 100
	<b>Term 3</b> Addition & Subtraction within 100 Length Multiplication	<b>Term 4</b> Division Time Money



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# **ZHPS Design Principles for Effective T&L to enable our Learners and Learning to Flourish**

## **Design Principles**

1. Learner at the Centre
2. Learning is actively constructed, individually and socially
3. Learning is social and emotional in nature
4. Assessment as Integral to Learning
5. Meaningful learning



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# **ZHPS Learning Dispositions**

**Sense of Responsibility**

**Sense of Curiosity**

**Collaboration**

**Creativity**

**Reflectiveness**

**Resilience**



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# Zhenghua Approach 1: CPA

- Concrete – Pictorial – Abstract Approach
- Use of manipulatives in the concrete way
- to introduce concepts
- Students Learn by Doing !



Students worked collaboratively in pairs. There is also peer interaction and they checked each other's work.



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# Zhenghua Approach 2: Learning through play

- Through games, children learn to communicate their reasoning skills!
- PALM (Play And Learn Math) @ Classroom & Mathematics Carnival



Differentiated and customised according to readiness and students' profile. Students are also grouped into different ability groups.



Students worked in pairs or groups, and there is joy of learning with hands-on exploration.



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# Zhenghua Approach 3:

## Applying Mathematics to solve real problems!

- Children learn to apply concepts and skills learnt in real-world context
  - P1 Math Learning Trail @ School
  - Integrating Art in Mathematics (I AiM) Project



The students are engaged in hands-on experience. It is **meaningful** to the students as the activity allows students to see how Math is relevant to everyday life.

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# Samples of Students' Reflections


My Reflections...

2 things I have learnt from the trail are

1. looking at the prices
2. measuring length.

The thing I like best about the trail is  
knowing more about our  
school!

12 OCT 2022




My Reflections...

2 things I have learnt from the trail are

1. looking at the prices
2. measuring length.

The thing I like best about the trail is  
knowing more about our  
school!




My Reflections...

2 things I have learnt from the trail are

1. Math is everywhere
2. Math is useful.

The thing I like best about the trail is  
The thing I like was at  
the Hall because we get  
to count the fans.



Students reflected on what they have learnt from the trail using the reflection template. Teacher will also provide feedback to enhance students' learning.

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# Partnering with Parents

- Using CPA, playing mathematics games and focus on applying mathematics in the real world context.

Number	Some Real World Application	Focus
(1) Counting	<ul style="list-style-type: none"><li>• Practise counting steps</li><li>• Practise counting sweets in a packet</li></ul>	<ul style="list-style-type: none"><li>• Speed</li><li>• Accuracy</li></ul>
(2) Comparing Numbers	<ul style="list-style-type: none"><li>• Compare number of people in each queue at cashier</li><li>• Comparing number of items in a packet</li></ul>	<ul style="list-style-type: none"><li>• Listening to their way of comparing</li><li>• Getting them to reason how comparison is useful to make informed decisions</li></ul>





# Partnering with Parents

- Cultivate a habit of mastering each mathematics concept through consistent practice.

In School	At Home
<ul style="list-style-type: none"><li>▪ Weekly Problem Sums</li><li>▪ Mental Sums</li><li>▪ Speed Math</li><li>▪ Math Workbooks</li><li>▪ Math Topical Worksheets</li><li>▪ Another Heuristics Adventure (AHA</li></ul>	<ul style="list-style-type: none"><li>▪ When your child does his/her Math problem or Math homework, advise him/her to write out the complete solution.</li><li>▪ Daily 30 minutes of practice is very important.</li></ul>



# Thank You



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