Primary 4
Mathematics
Curriculum Briefing

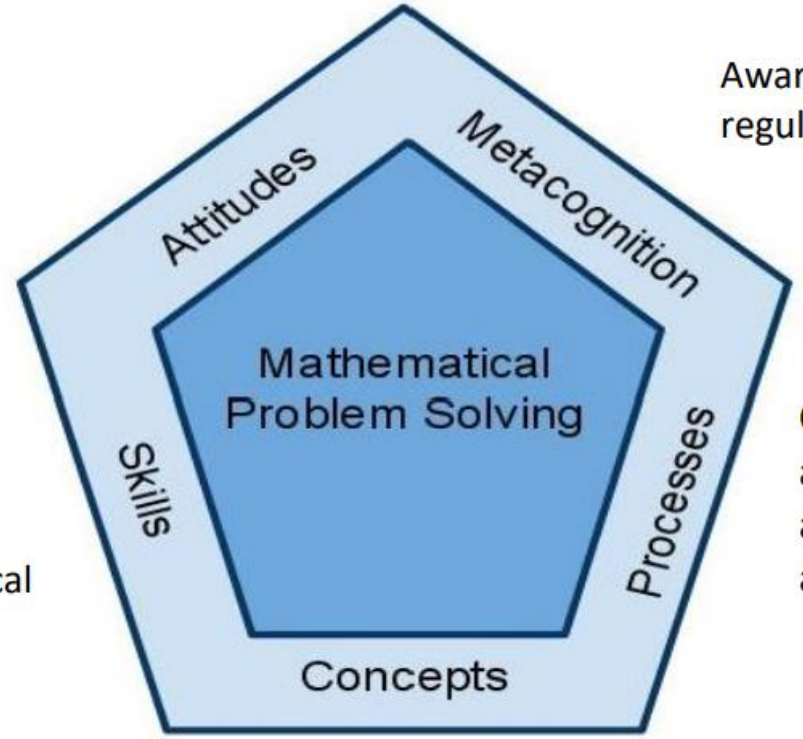
Outline

- Mathematics Curriculum Framework
- Mission
- Approach to Teaching & Learning
- Assessment

MOE Mathematics Curriculum Framework

Belief, appreciation, confidence, motivation, interest and perseverance

Awareness, monitoring and regulation of thought processes



Proficiency in carrying out operations and algorithms, visualising space, handling data and using mathematical tools

Competencies in abstracting and reasoning, representing and communicating, applying and modelling

Understanding of the properties and relationships, operations and algorithms

Mission

To enable our students to master mathematical concepts and skills for everyday life and to equip them with process skills to solve mathematical problems.

Content Sequence for P4 Topics

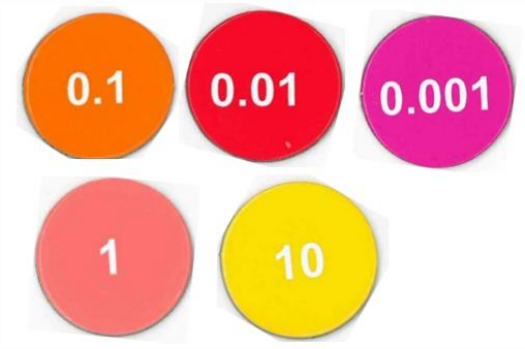
Semester 1	Semester 2
Term 1 Numbers to 100 000 Factors and Multiples Four Operations of Whole Numbers Tables and Line Graphs	**Term 3** Decimals Four Operations of Decimals Pie Charts
Term 2 Fractions Angles Rectangles and Squares	**Term 4** Area and Perimeter Nets Symmetry

Approach to Teaching & Learning

CONCRETE → PICTORIAL → ABSTRACT

Approach to Teaching & Learning

Fraction Discs



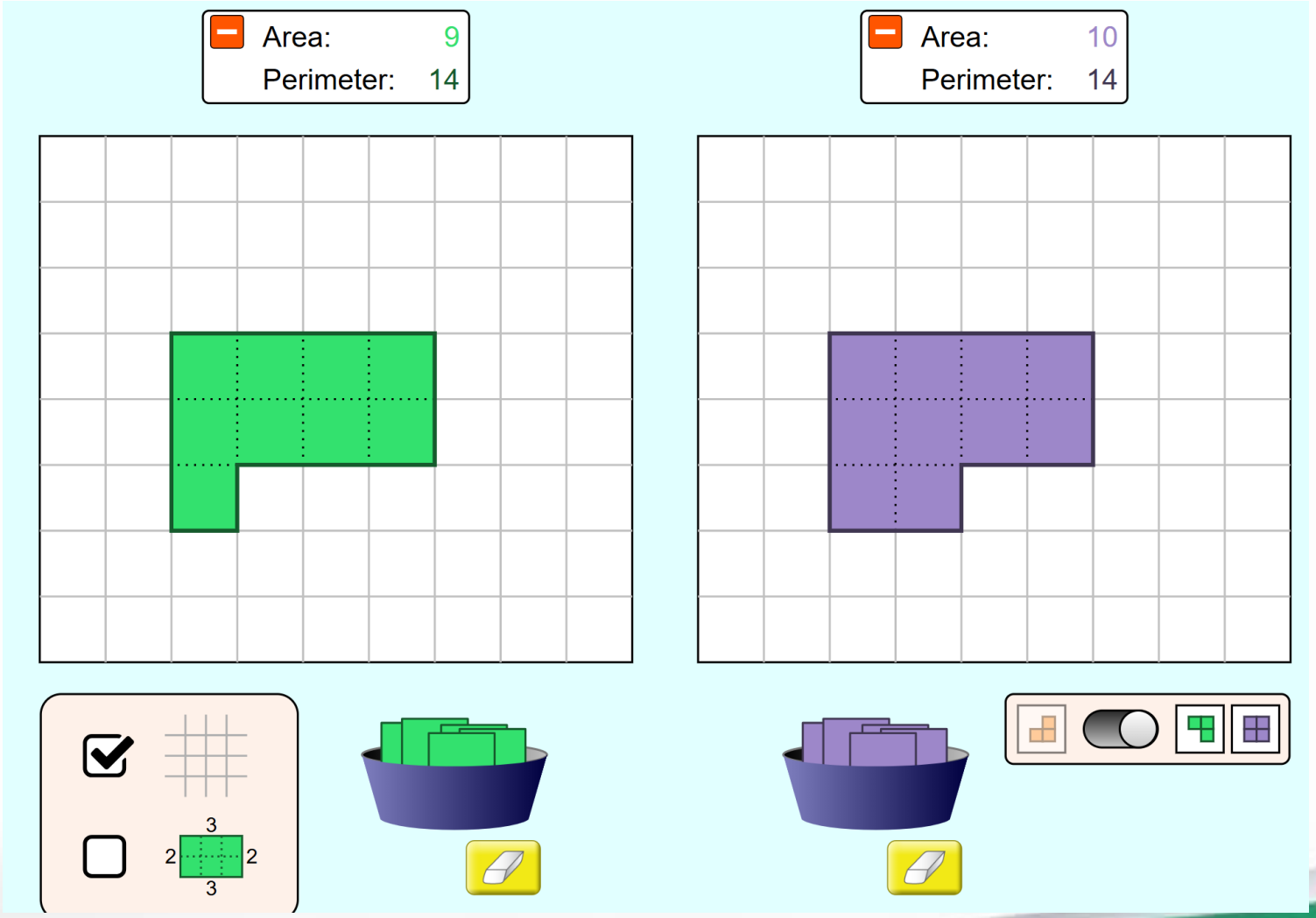
Number Discs

Multilink Cubes

Use of concrete manipulatives to develop conceptual understanding

Approach to Teaching & Learning

Use of online manipulatives and ICT tools to extend learning



Differentiated Instructions

1 Use the Internet to find the distance between Singapore and the various cities	2 Use Internet to find the height of the mountains	3 Use Internet to find the length of the rivers
4 Complete the graphic organiser	 Spiderman: Math Your Way Home (Compulsory question)	Complete the Math Journal
7 Complete the number pattern	8 Describe the number pattern and find the next three numbers	9 Create your own number patterns

Choice Board

Question 1

Use the Internet to find the distances in kilometres between Singapore and these cities. Round each distance to the nearest ten kilometres, hundred kilometres and thousand kilometres.

Complete the table.

City	Distance in km (from Singapore)	Rounded to the nearest ten km	Rounded to the nearest hundred km	Rounded to the nearest thousand km
Bangkok				
Seoul				
Tokyo				
Hong Kong				
New York				
S				

Use of authentic data

Wha

When rounding to the nearest ten, I look at the digit in the _____ place.

When rounding to the nearest hundred, I look at the digit in the _____ place.

When rounding to the nearest thousand, I look at the digit in the _____ place.

Question 6

(a)

The cost of the mobile phone is about $1900. Therefore, the greatest possible value of the mobile phone before it was rounded to the nearest hundred is $1899.

Terri

Is Terri correct? Please explain.

_____

_____

_____

Build metacognition

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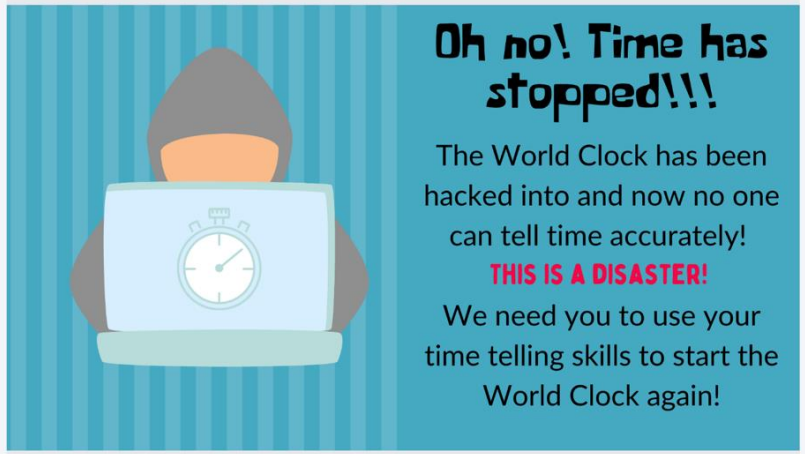
Experiential Learning

4F_Revision on P3 Time and Learning P4 Time



Mission 1 – Time in Hours and Minutes

What did you do on a Sunday? Now it is your turn to record your activities in the table below:

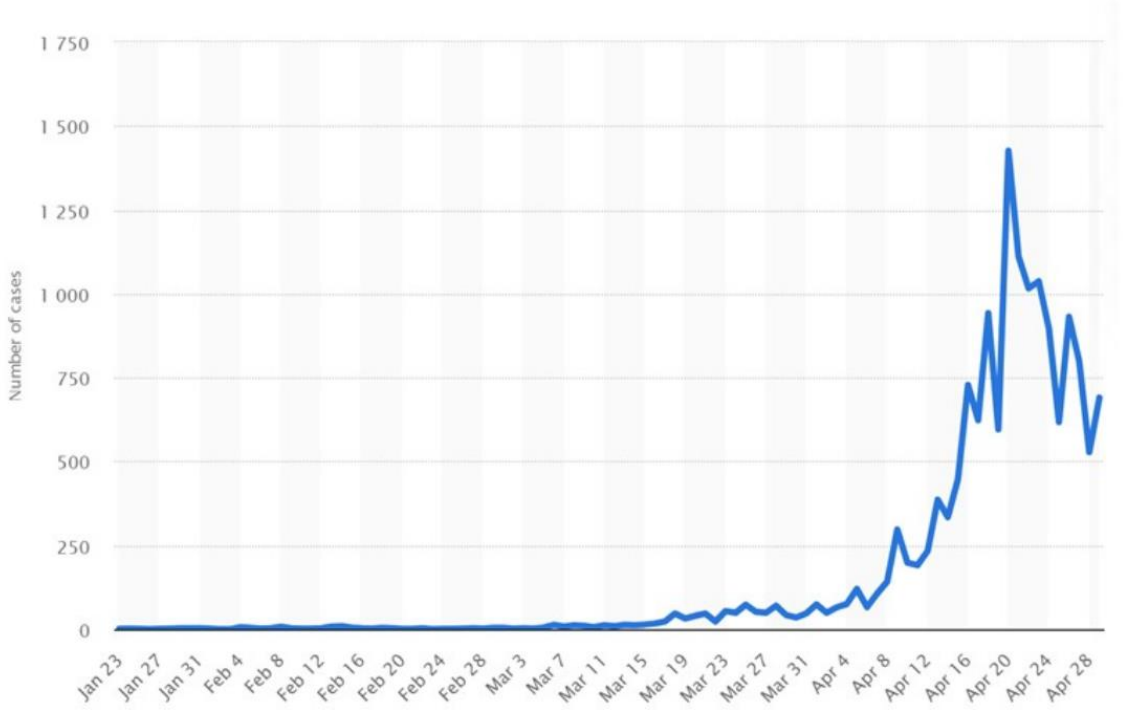
Starting time on 12-hour clock	Finishing time on 12-hour clock	Duration	Activity

Draw your timeline in the box provided below based on the activities recorded in the table.

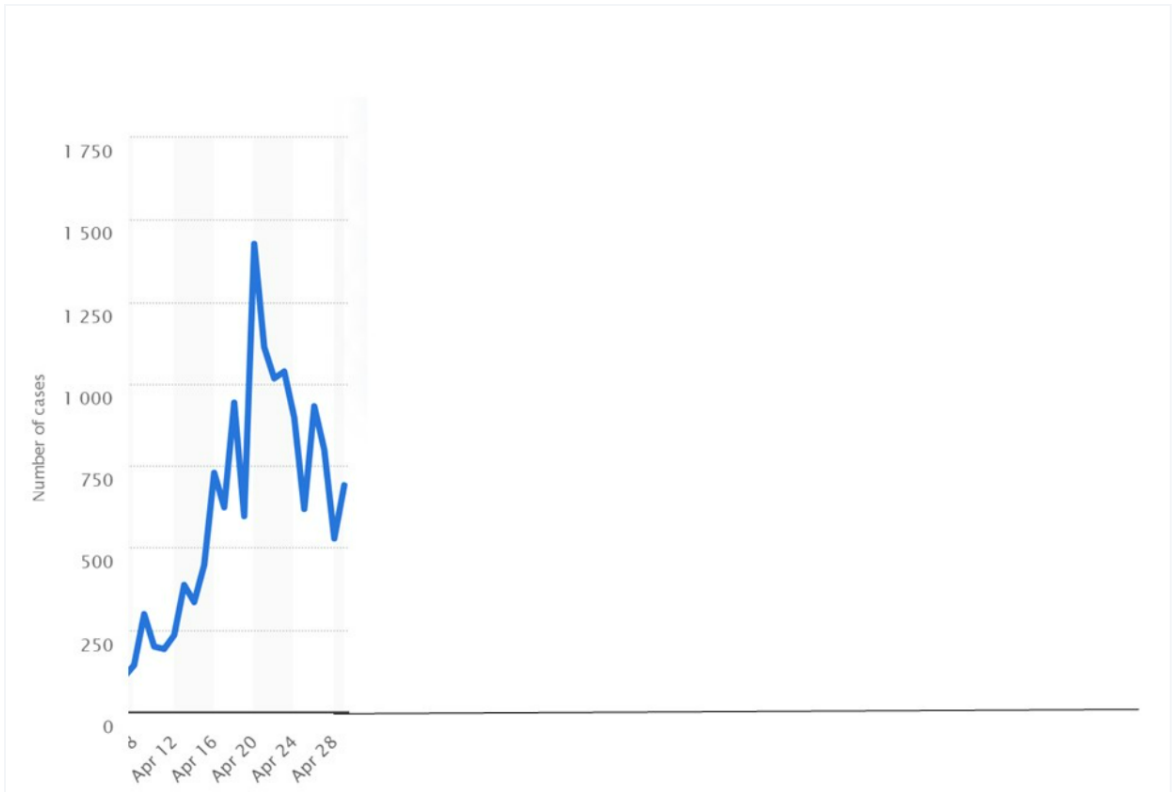
ICT Enriched Lesson

Understanding line graphs:

The graph below shows the number of new Covid-19 cases in Singapore



In terms of the number of Covid-19 cases, complete the line graph with a trend that you wish for Singapore in the future.



Making connections between Mathematics and the real world

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Heuristics Skills

Strategy: Making a List

Example:

Meiling wants to come up with as many 2-digit numbers as possible using the digits 3, 5, 7 and 8. Each digit can be used more than once. How many possible 2-digit numbers can Meiling form?

Solution:

First, write down all the possible 2-digit numbers starting with 3. ⇒ 33 35 37 38

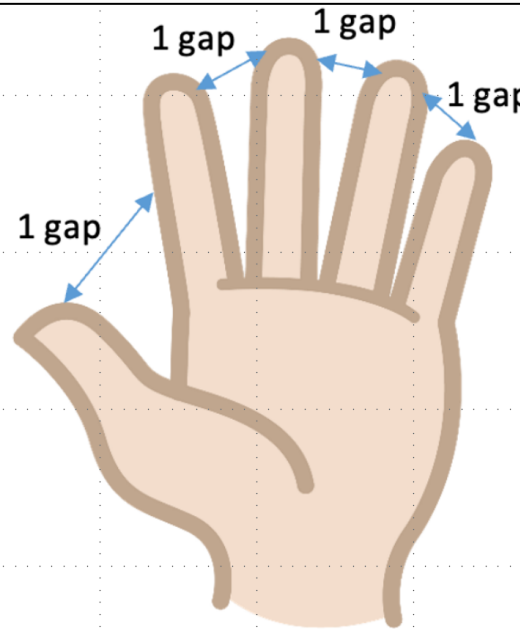
Write down all the possible 2-digit numbers starting with 5, then with 7 and lastly with 8. ⇒

33	35	37	38
53	55	57	58
73	75	77	78
83	85	87	88

Ans: She can form **16** 2-digit numbers.

Gaps and intervals in math

- An interval is a gap between two things or points.
- Count the number of fingers and the number of gaps in the picture on the right. What do you notice?



Polya's 4 Steps to Problem Solving

UNDERSTAND

- Read the question carefully
- Take note of key words / information
- What are you asked to solve?

PLAN

- Think about similar problem you have solved before.
- Any clues to guide you on the strategy to be applied here? e.g make a list, draw a model etc

SOLVE

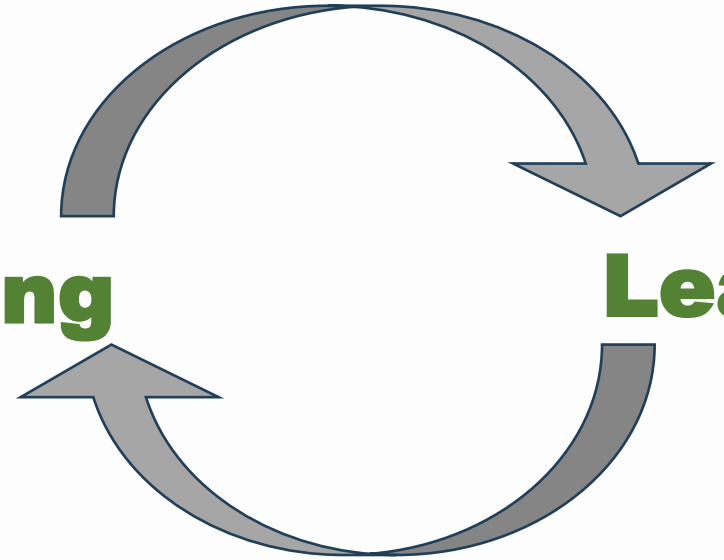
- Follow your plan step by step.
- Write the equations and check each step as you go

CHECK

- Does your answer make sense?
- Does your answer fit the conditions given in the question?
- Do you need to include any units in your answer?

Formative

ASSESSMENT



Teaching

Learning

ASSESSMENT

Summative

Formative Assessment

- Daily work
- Performance Tasks
- Topical Review
- Teacher’s observation and feedback

Summative Assessment

Weighted Assessment 1	Weighted Assessment 2	End-Year-Examination	Total
15%	15%	70%	100%

Weighted Assessment 1	Weighted Assessment 2
Term 2 Week 5	Term 3 Week 5
30 marks	30 marks
Topics: • Numbers to 100 000 • Factors and Multiples • Four Operations of Whole Numbers	Topics: • Fractions • Angles • Rectangles and Squares

P4 End-Year Examination Format

Duration: 1 h 45 min

Section	No. of Questions	Item Type	Marks
Section A	20	Multiple Choice	40
Section B	20	Short Answer	40
Section C	5	Word Problems	20
Total	45		100

Good habits for your child to adopt

- Read the question carefully
- Take note of key words and information given.
- Present their solution clearly
- Annotate or write short statements for the working
- Check that they have computed the answer correctly at each step before moving on to the next step
- Include relevant units in their answer
- Read the question again to ensure that they have answered the question

Empowering Math Learning at Home

- Show the relevance of Math in real-life
- Play Math Games
- Provide a supportive environment
- Encourage a Growth Mindset

Thank you!