Primary 5

Bukit Timah Primary School

Mathematics MTPS (Cohort Briefing) 2023

2 February 2023

Mathematics Teaching & Learning in BTPS

01 **BTPS Approach**

Extend Mathematical Thinking through Mastery

02 **Pedagogy**

C-P-A
IBL- TR

03 **Differentiated Programmes**

04 **Teaching Resources**

05 **Assessment**

Assessment Plan
Paper Format

Mathematics Department Vision

Lower Primary

LOVE MATH

Develop the **Love** for **Mathematics** through engaging leaners in the acquisition of the **Basics** with Fun

Middle Primary

ENJOY MATH

Enjoy Mathematics through **Exploring, Reasoning and Communicating** Mathematics logically – Understanding the Mathematics in authentic experiences

Upper Primary

THINK MATH

Extend Mathematical Thinking with Mastery in Mathematics

Investigative & Authentic Tasks

Complex tasks that require them to investigate, clarify, connect and apply mathematical concepts learnt effectively

Consolidation Reflection

Consolidate and reflect on their learning in Mathematics

Rigor to Mastery

Provide more rigor to prepare our students towards mastery.

Mathematics Teaching & Learning in BTPS

Primary 5 Syllabus

1. A spiral approach is adopted in the building up of content across levels.

Topics build up from Primary 4	New Concepts in Primary 5 (Std)	New Concepts in Primary 5 (Fdn)
Whole Numbers +, -, ×, ÷, Fractions Decimals Angles	Average Ratio Rate Percentage Area of Triangle Triangles Quadrilaterals	Rate

2. Introducing the use of calculators.

Mathematics Teaching & Learning in BTPS

C-P-A

Introduce topics through **hands-on activities** that leverage on **conceptual development**.

Infuse **interactive activities** for students to experience the **joy of learning** Mathematics.

Encounter mathematics in an **authentic** way to **make meaning to learning**.

IBL-TR

Use of **mathematics journaling** in Think of Mathematics (TOM) to encourage **creative and critical thinking** as well as **reasoning and communication skills**.

Thinking routines to **reflect** on their learning and **make connections** to the topics learnt to deepen their conceptual knowledge.

Mathematics Teaching and Learning in BTPS

Resources for Teaching and Learning

1. Textbooks and Workbooks
2. TOM Journals
3. Heuristics Booklets (PSH & I Can Solve)
4. Speed and Accuracy Practices
5. Practice Papers
6. Koobits and other online resources

Mathematics Teaching and Learning in BTPS

Programmes for Mathematics Learning

1. Learning Support (Pull-out) – Supporting mathematics learning.
2. ASC Programme – Supporting mathematics learning.
3. Math Olympiad Programme – Developing higher-order thinking skills.
4. E2K Programme – Developing higher-order thinking skills.
5. Math Learning Day – Joy of Learning and Application of Mathematics thinking.
6. Junior Achievement Programme – Financial Literacy

Mathematics Assessment in BTPS (Standard)

	Term 1	Term 2	Term 3	Term 4
Base Mark	30	30	30	100
Weightage	10%	15%	15%	60%
Schedule*	Week 9	Week 7	Week 6	Week 7
Topics	Chapter 1 to 2	Chapter 3 to 5	Chapter 6 to 8	P3 and 4 Topics 5A and 5B
Format	MCQ SAQ LAQ	MCQ SAQ LAQ	MCQ SAQ LAQ	MCQ SAQ LAQ
Duration	50 min	50 min	50 min	2 h 30 min

Mathematics End of Year Exam Format (Std)

Paper	Booklet	Item Type	Number of Questions	Number of marks per question	Number of marks	Duration
1	A	Multiple-choice	10	1	10	1 h
			5	2	10	
	B	Short-answer	5	1	5	
			10	2	20	
2		Short-answer	5	2	10	1 h 30 min
		Structured / Long-answer	12	3, 4, 5	45	
			47	-	100	2h 30 min

Mathematics Assessment in BTPS (Foundation)

	Term 1	Term 2	Term 3	Term 4
Base Mark	30	30	30	100
Weightage	10%	15%	15%	60%
Schedule*	Week 9	Week 7	Week 6	Week 7
Topics	Chapter 1 to 3	Chapter 4 and 5	Chapter 6 and 8	P3 and 4 Topics 5A and 5B
Format	MCQ SAQ LAQ	MCQ SAQ LAQ	MCQ SAQ LAQ	MCQ SAQ LAQ
Duration	50 min	50 min	50 min	2 h

Mathematics End of Year Exam Format (Fdn)

Paper	Booklet	Item Type	Number of Questions	Number of marks per question	Number of marks	Duration
1	A	Multiple-choice	10	1	10	1 h
			10	2	20	
	B	Short-answer	10	2	20	
2		Short-answer	10	2	20	1 h
		Structured / Long-answer	6	3, 4	20	
			46	-	90	2h

Mathematics Assessment @ P5

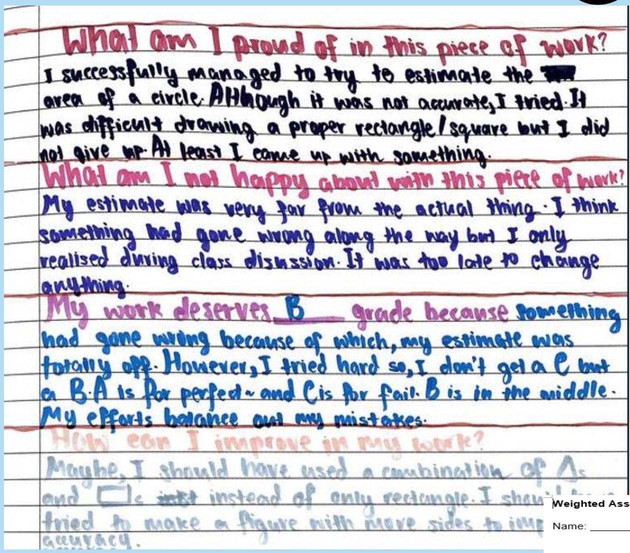
Formative assessment will also take place regularly to ensure students receive timely feedback on their learning.

- Worksheets and practice papers (topical reviews, speed tests and PSLE revision worksheets, Practice Papers)
- TOM Journals
- Class-based activities and ICT enriched activities

Feedback to parents

- Topical worksheets and Self-assessment checklist will be sent home for parent's acknowledgement after the completion of each topic.
- Files will be sent home for revision termly.

Involving Students in Assessment

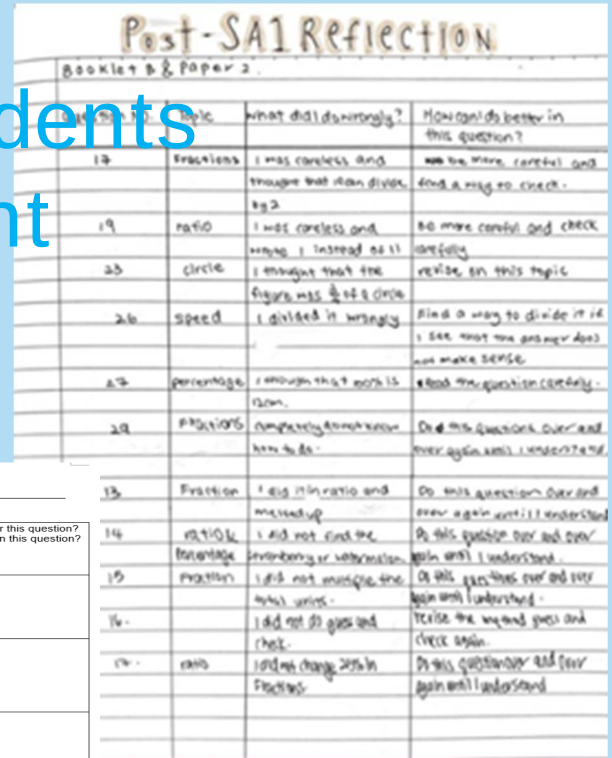


What am I proud of in this piece of work?
I successfully managed to try to estimate the area of a circle. Although it was not accurate, I tried. It was difficult drawing a proper rectangle/square but I did not give up. At least I came up with something.

What am I not happy about with this piece of work?
My estimate was very far from the actual thing. I think something had gone wrong along the way but I only realised during class dismission. It was too late to change anything.

My work deserves B grade because
something had gone wrong because of which, my estimate was totally off. However, I tried hard so, I don't get a C but a B. A is for perfect and C is for fail. B is in the middle. My efforts balance out my mistakes.

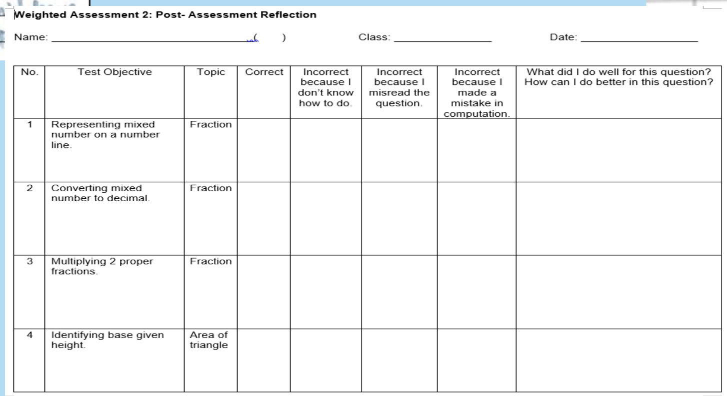
How can I improve in my work?
Maybe, I should have used a combination of △s and ☐s instead of only rectangle. I should have tried to make a figure with more sides to improve accuracy.



Post-SA1 Reflection

Booklet B & Paper 2.

Question No.	Topic	What did I do wrongly?	How can I do better in this question?
17	Fractions	I was careless and thought that I can divide by 2	Be more careful and find a way to check.
19	ratio	I was careless and wrote 1 instead of 11	Be more careful and check carefully
23	circle	I thought that the figure was $\frac{1}{2}$ of a circle	revise on this topic
26	speed	I divided it wrongly	Find a way to divide it if I see that the answer does not make sense
27	percentage	I thought that [illegible] is [illegible].	Read the question carefully.
29	Fractions	completely don't know how to do.	Do this questions over and over again until I understand.
13	Fraction	I did it in ratio and messed up	Do this question over and over again until I understand
14	ratio & percentage	I did not find the [illegible] or information.	Do this question over and over again until I understand.
15	Fraction	I did not multiple the total units.	Do this questions over and over again until I understand.
16.		I did not do guess and check.	revise the [illegible] guess and check again.
17.	ratio	I did not change 25% in fractions	Do this question over and over again until I understand



Weighted Assessment 2: Post- Assessment Reflection

Name: ______________________( ) Class: ______________ Date: ________________

No.	Test Objective	Topic	Correct	Incorrect because I don't know how to do.	Incorrect because I misread the question.	Incorrect because I made a mistake in computation.	What did I do well for this question? How can I do better in this question?
1	Representing mixed number on a number line.	Fraction					
2	Converting mixed number to decimal.	Fraction					
3	Multiplying 2 proper fractions.	Fraction					
4	Identifying base given height.	Area of triangle					

Developing Metacognition

Partnership with Parents

How can you help your child?

1. Ensure your children revise the work that we have done in class daily.
2. Monitor their homework, eventually work towards them taking ownership of their own learning.
3. Encourage them not to be over-reliance on the use of calculators.
4. Encourage them to work within the stipulated time frame (for better time management during examinations, especially for Paper 1).
5. Encourage neat and clear presentation of work.
6. Encourage them to check their work.