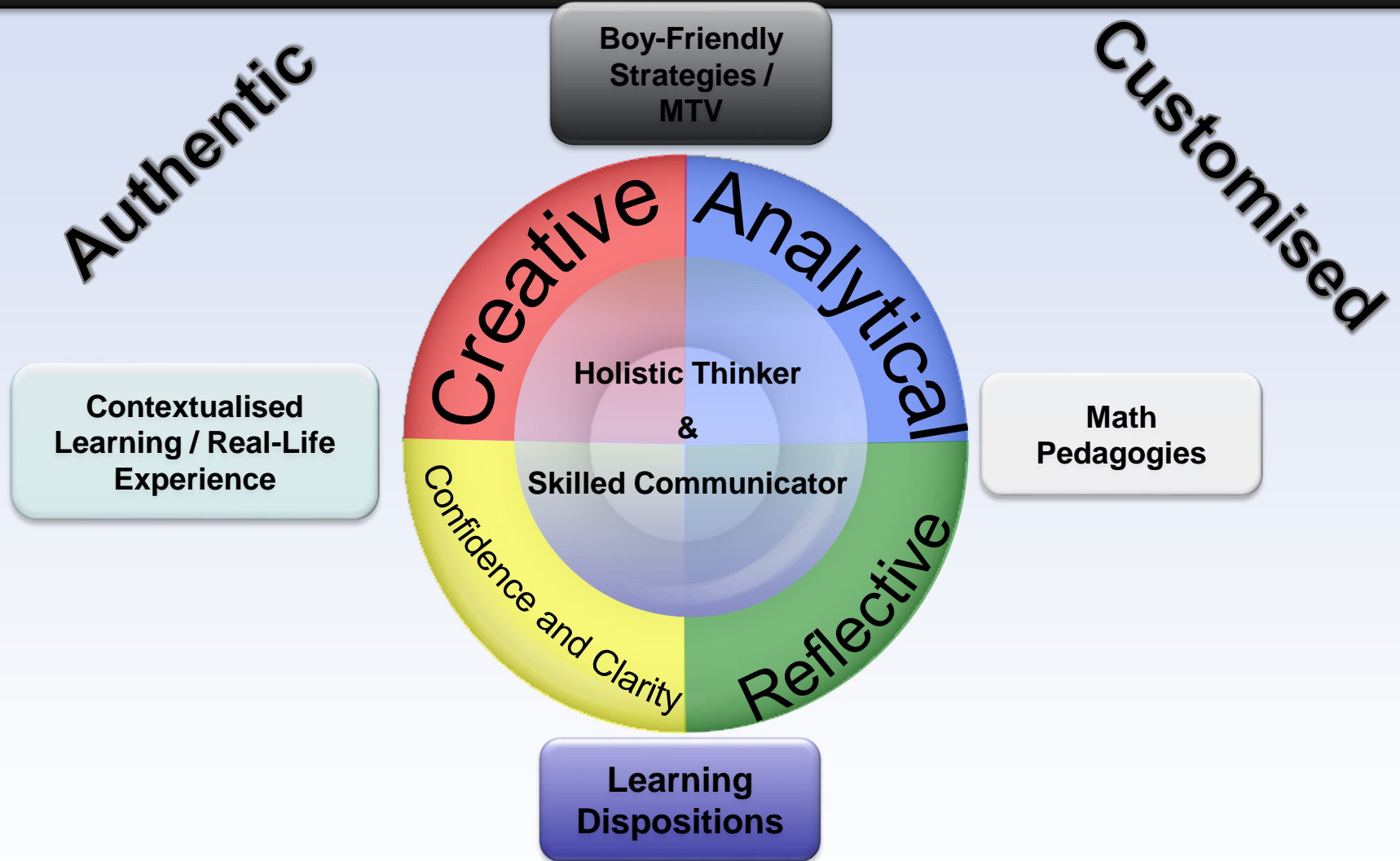


Nurturing a Holistic Thinker and Skilled Communicator in Mathematics



Our Math Department Vision

Every Saint, is a creative, self-directed problem-solver



Embedded Values

Learning Dispositions

The disposition to :

- Persevere (Resilience)
- Be adventurous (Wonder)
- Make connections (Wonder)
- Be accurate (Excellence)
- Seek and evaluate reasons (Wonder)
- Have metacognition (Self-Discipline & Excellence)



SAJS

Signature Pedagogy



Teaching understanding of concepts through 3 representations

E

Enactive

- Provide learning experiences through the use of concrete materials, manipulatives or hands-on activities.

P

Pictorial

- Provide learning experiences with the use of visual medium : pictures, diagram, images, videos, etc to allow pupils to generate mathematical rules and regulations through questioning.

A

Abstract

- Provide learning experiences for identification and application of problem-solving skills and strategies, as well as the explanation of concepts, giving examples and non-examples and justification for specific rules and solutions.



SAJS Problem Solving Approach

1

- **Read and Understand**

- Have I used **Structured Questioning** ?
- Have I used **chunking** to identify key information?
- Can I restate the problem by drawing a picture or diagram to help me understand the problem?

2

- **PLAN**

- What **strategy or heuristics** can I use to solve the problem? **What makes you say that?**

3

- **Carry out the Plan**

- Did I label my steps?
- Did I use the right mathematical symbols?
- If I am stuck, do I have an **alternative method**? **What makes you say that?**

4

- **Check**

- Does the answer make sense?
- Have I **check** for reasonableness and accuracy? (**Confirm**)
- Have I checked for calculation errors?
- Have I checked for transfer errors?
- Have I transferred information correctly?
- Have I included the correct measurement units?



Structured Questioning and Chunking

- (4) Amy saved \$3210. Mia saved twice as much as Amy. Amy saved 3 times as much as Ned.
- How much did Ned save?
 - How much money must Mia give to Ned so that they each have the same amount of money?

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- How much did Ned save?
 - How much money must Mia give to Ned so that they each have the same amount of money?

Format of PSLE Math

Booklet	Item Type	No. of Questions	Weightage	Duration
Paper 1 A	MCQ	15	20%	60 min
Paper 1 B	Short-answer	15	25%	
Paper 2	Short-answer Structured Long answer	17	55%	1h 30min

Note: No Calculators are allowed for Paper 1



PSLE Topics

P6 New Topics	P5 Topics
Algebra	Whole Numbers
Fraction (division by fraction)	Decimals
Speed	Fraction
Circles	Geometry
Pie Charts	Percentage
Nets	Area & Perimeter
	Volume / Rate
	Average
	Graphs



Assessment format* for P5

	Time (Week)	Maths
Term 1	Week 9	WA 1 (10%) P5 : 30 marks
Term 2	Week 8	WA 2 (10%) P5 : 30 marks
Term 3	TBC	WA 3 (10%) P5 : 30 marks
Term 4	Refer to SA2 Schedule	SA2 (70%)

* Subject to changes

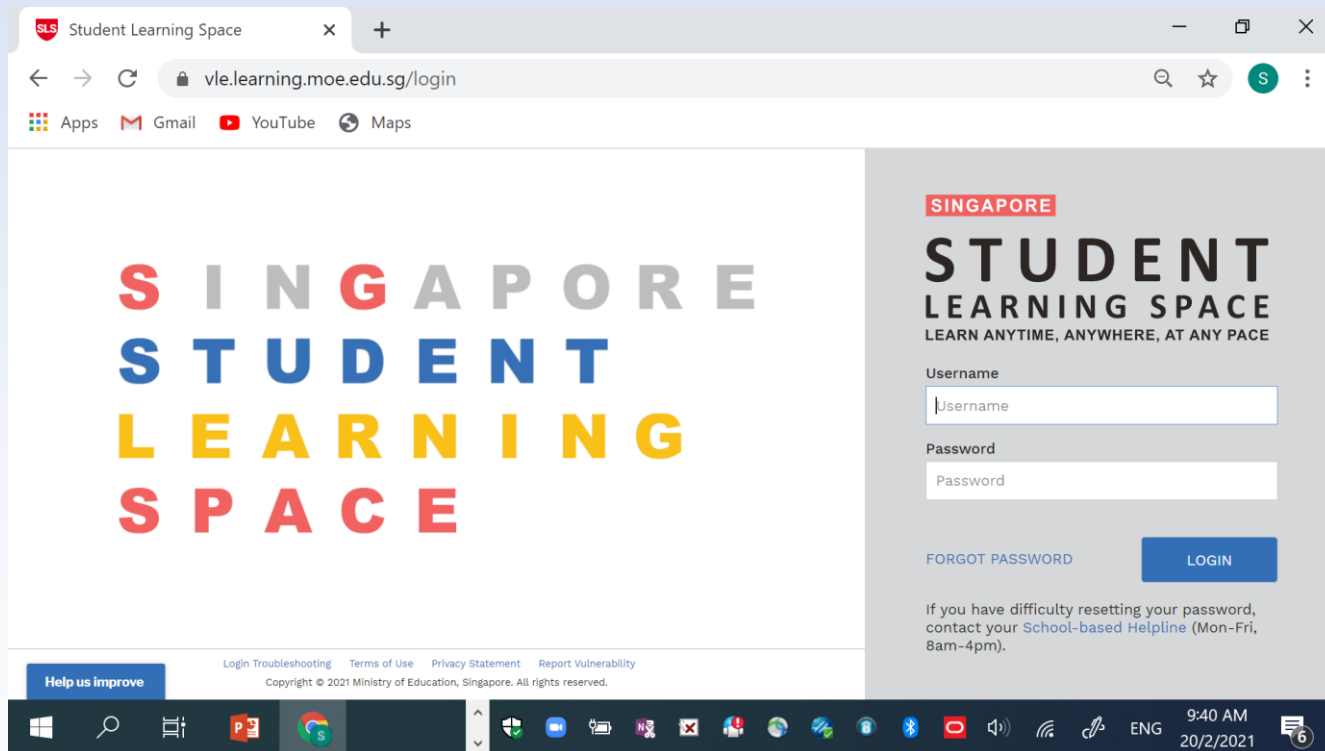


Resources Used in Class

- Targeting Math TB 5A and 5B
- Targeting Math Workbook 5A and 5B
- Termly Heuristics Booklets (teaching videos – scan with QR Code)
- Practice Papers
- **Blue file** – 5A Maths Workbook & Heuristics booklets, Practice Papers, WAs
- **Purple file** – 5B Maths Workbook & Heuristics booklets, Practice Papers, WAs



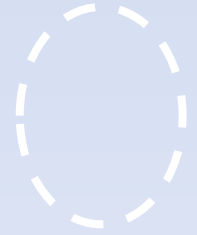
Online Teaching and Learning Resources



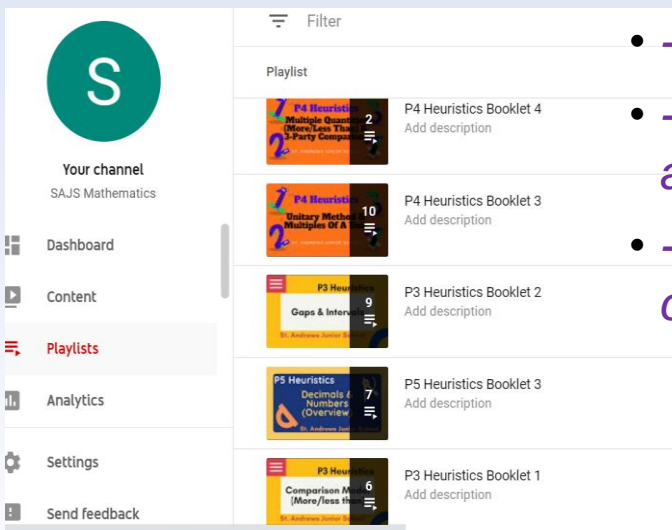


Your channel
SAJS Mathematics

SAJS MATHEMATICS YOUTUBE CHANNEL



We develop online heuristics teaching and learning videos for students', parents' and fellow teachers' viewing and learning.



- - *learning together*
- - *students to be familiar with problem-solving skills and Math language used*
- - *to demonstrate holistic thinking and skilled communication in Mathematics*

P5 Heuristics Whole Number



Just scan QR Code
and you can select the
video to view

<https://tinyurl.com/sajsp5mawn>

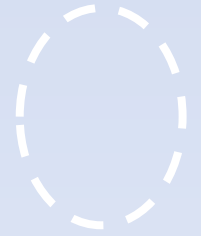
- QR Codes are found in all level heuristic booklets





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P5 Heuristics Whole Number



<https://tinyurl.com/sajsp5mawn>

P5 Heuristics Fractions & Ratio



<https://tinyurl.com/sajsp5mafar>

P5 Heuristics Booklet 3

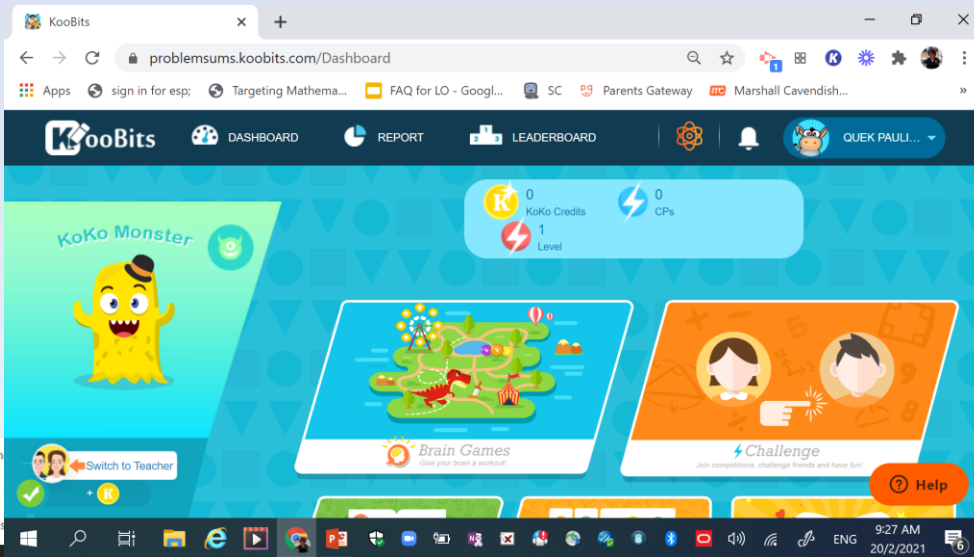


<https://tinyurl.com/sajsp5mah3>

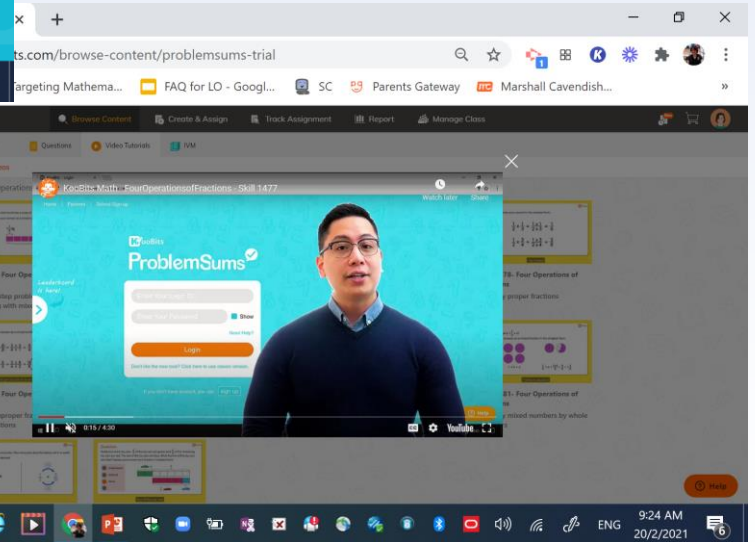
QR Codes are found in all level heuristic booklets



Supporting Online T&L Resources

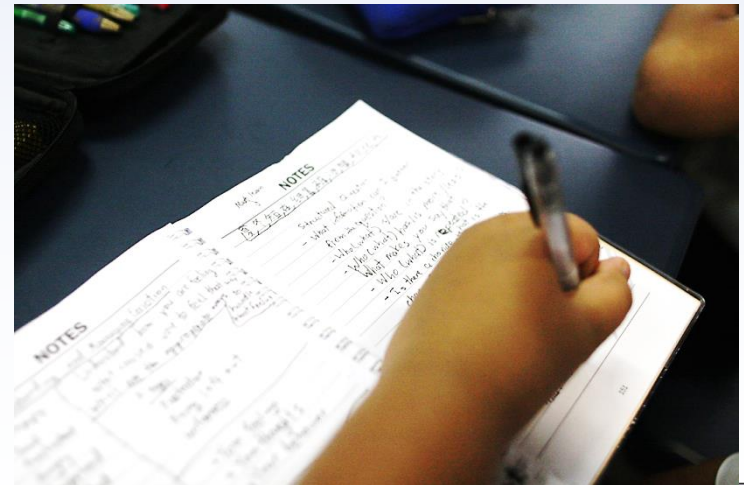


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Key Areas of Focus

- Problem-Solving using Heuristics (Video provided)
 - Checking for reasonableness and accuracy
 - Use of Alternative Solutions
 - Creating Questions
 - Identifying Misconception
- Math Language for Communicating and Reasoning
- Math Journaling
(Think and Take notes)



Ways we hope to partner you

Rigor

- Ensure daily practice
- Check their PO
- Get child to explain concepts to you
(encourage mathematical reasoning)



Ways we hope to partner you

- Develop and prepare them the following skills
 - Time Management
 - Exam-taking skills
 - Accuracy
 - Mental Calculation
- Responsible use of the calculator



Ways we hope to partner you

Presentation of Work (Neat and Organised)

- Ensure that there are proper steps with labelling and complete number equations
- Ensure filing of Worksheets
- Ensure **corrections are completed**



THANK YOU

Math HoD : quek_pauline@moe.edu.sg

