

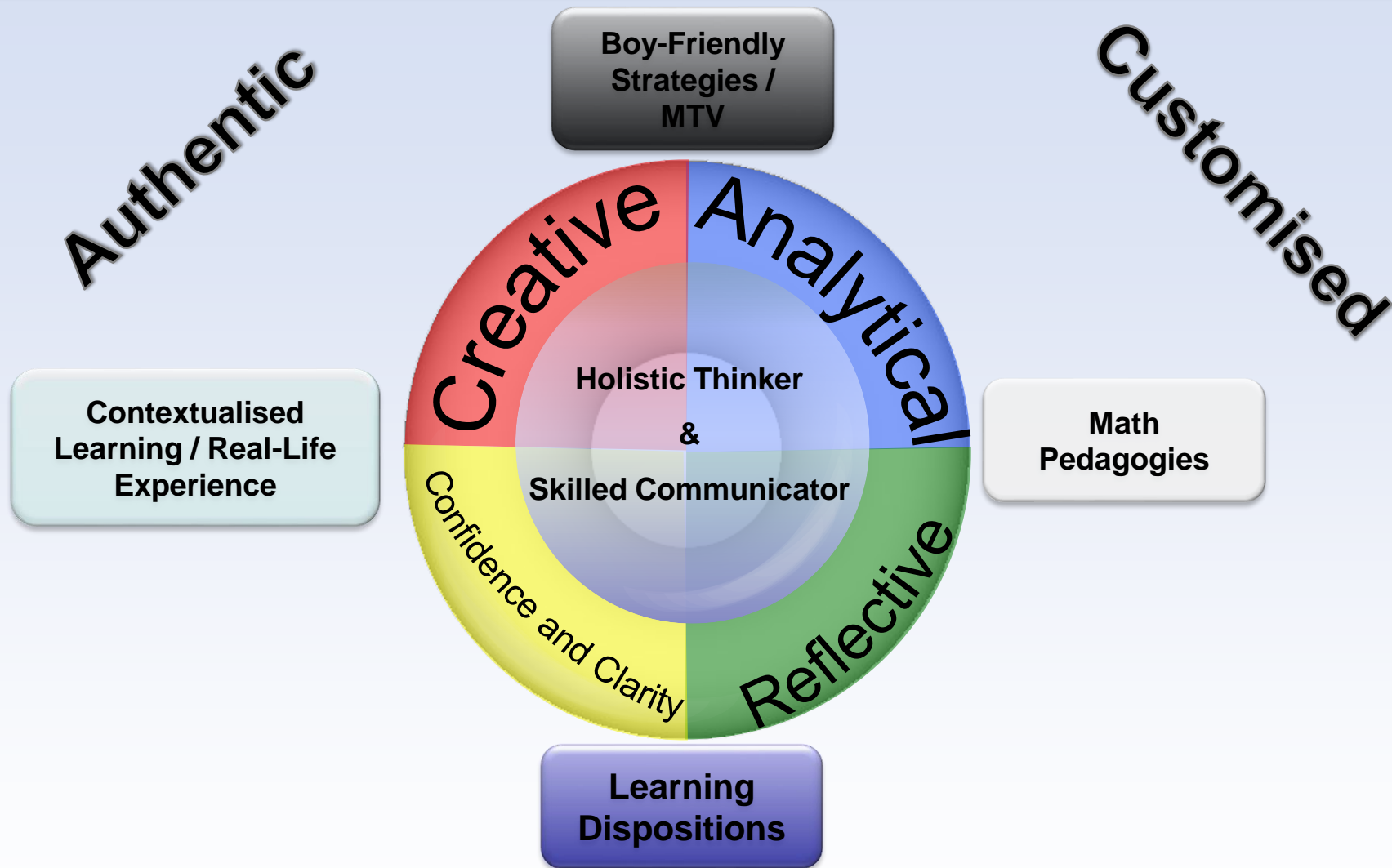
# **Nurturing a Holistic Thinker and Skilled Communicator in Mathematics**



Every Saint an Analytical, Self-directed problem-solver by acquiring thinking, reasoning, communication, application and metacognitive skills.



**Our Math Department Vision**  
Every Saint is an analytical, self-directed problem-solver



**Embedded Values**

# SAJS

## Signature Pedagogy



Teaching understanding of concepts through 3 representations

**E**

## Enactive

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

**P**

## Pictorial

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- 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

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- 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

- To promote cognitive and metacognitive process skills ( HT skills )  
when applying problem-solving skills / heuristics

# 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?



# 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)





# 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**



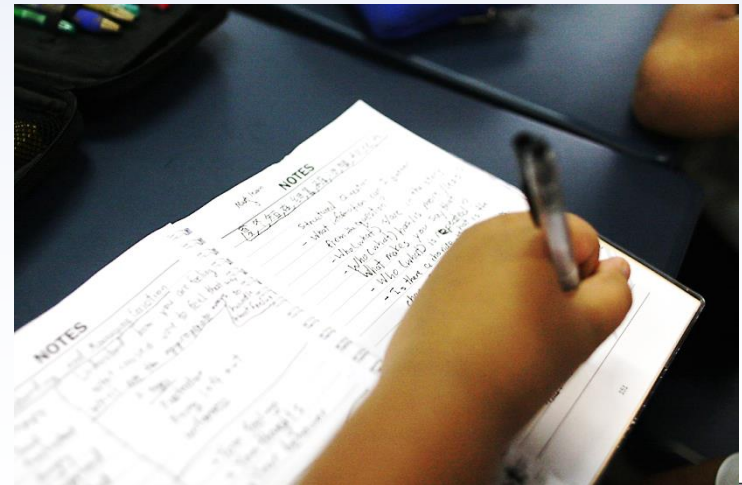
# PSLE Topics

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



# 2021 Common Last Topics (6B)

- Speed
- Pie Charts
- Solid Figures and Nets
- Volume



# Resources Used in Class

- Targeting Math TB 6A and 6B
- Targeting Math Workbook 6A and 6B
- Termly Heuristics Booklets
- PSLE questions by year ( EPH)
- PSLE questions by topic ( SAJS 15-years' series )
- Practice Papers
- **Blue file** – 6A Maths Workbook & Heuristics booklets, Practice Papers, PSLE Qns
- **Purple file** – 6B Maths Workbook & Heuristics booklets, test/exam papers, Practice Papers, PSLE Qns



# Online Teaching and Learning Resources

The screenshot shows a web browser window with the URL `vle.learning.moe.edu.sg/login`. The page features the Singapore Student Learning Space logo on the left, which reads "SINGAPORE STUDENT LEARNING SPACE" in large, colorful letters. On the right, there is a login form with the following elements:

- SINGAPORE** (in a red box)
- STUDENT LEARNING SPACE**
- LEARN ANYTIME, ANYWHERE, AT ANY PACE
- Username:
- Password:
- [FORGOT PASSWORD](#)
- [LOGIN](#) (blue button)

Below the login form, there is a note: "If you have difficulty resetting your password, contact your [School-based Helpline](#) (Mon-Fri, 8am-4pm)."

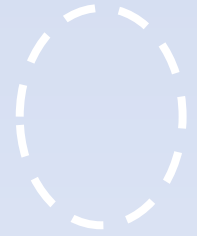
At the bottom of the page, there is a footer with the following text: "Help us improve", "Login Troubleshooting", "Terms of Use", "Privacy Statement", "Report Vulnerability", and "Copyright © 2021 Ministry of Education, Singapore. All rights reserved." The Windows taskbar is visible at the bottom of the screenshot, showing the time as 9:40 AM on 20/2/2021.



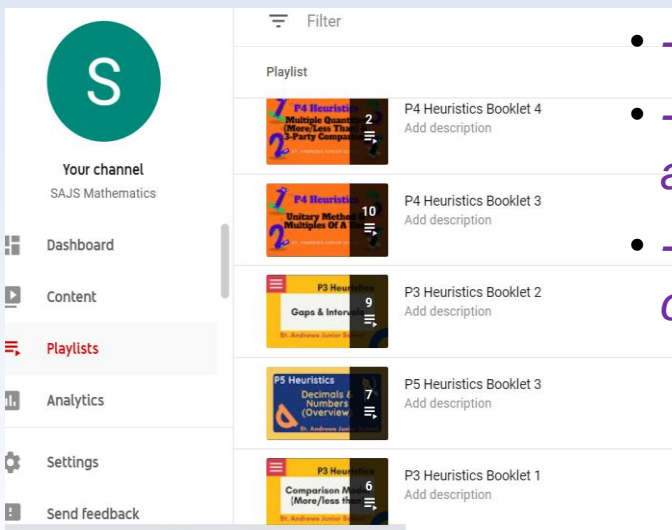


Your channel  
SAJS Mathematics

# 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*

## P6 Heuristics Booklet 1



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

<https://tinyurl.com/sajsp6mah1>

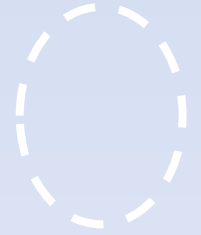
- QR Codes are found in all level heuristic booklets





Your channel  
SAJS Mathematics

# SAJS MATHEMATICS YOUTUBE CHANNEL



## P6 Heuristics Booklet 1



<https://tinyurl.com/sajsp6mah1>

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

## P6 Heuristics Booklet 2

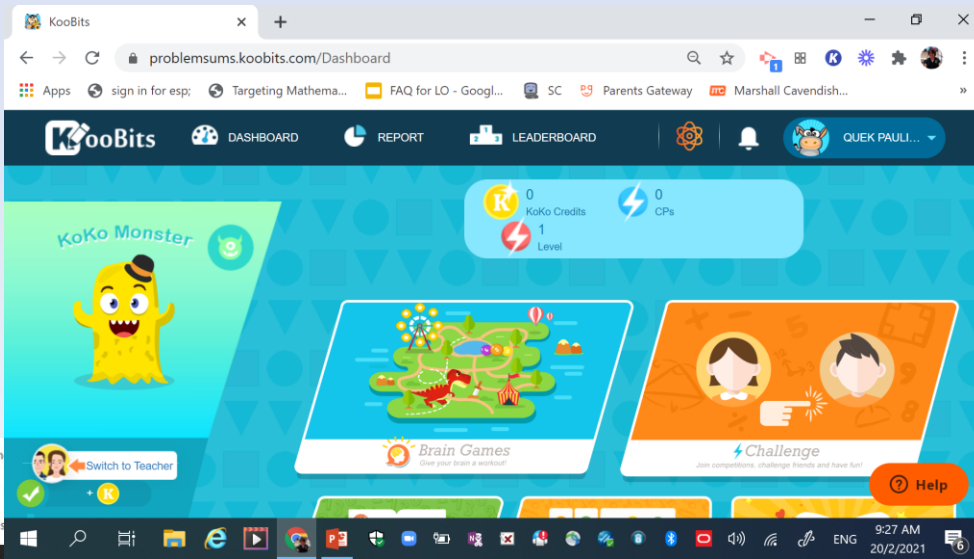


<https://tinyurl.com/sajsp6mah2>

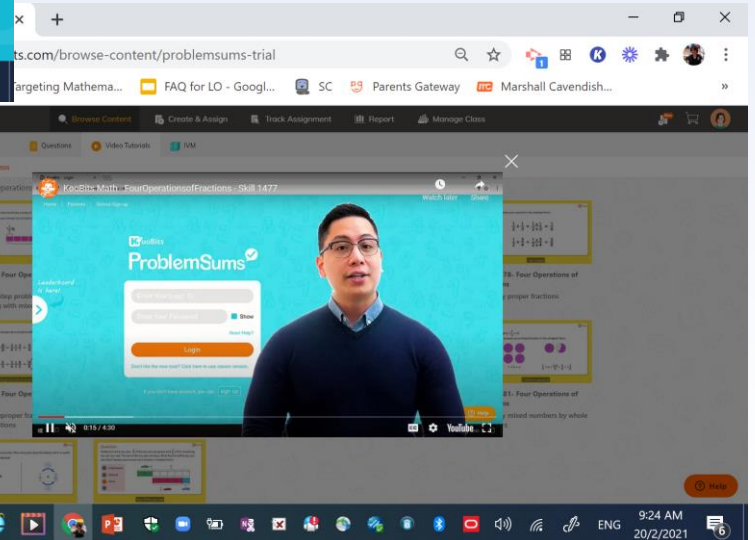
QR Codes are found in all level heuristic booklets



# Supporting Online T&L Resources



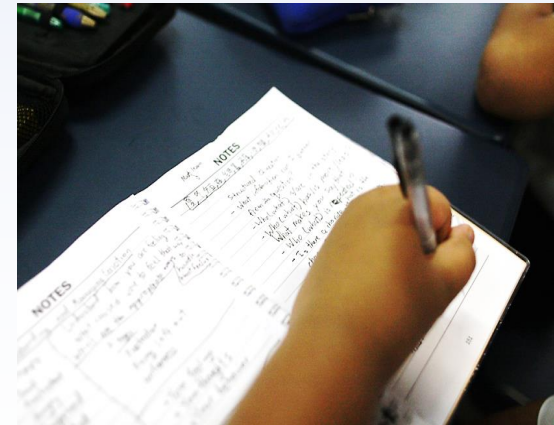
[www.koobits.com](http://www.koobits.com)





# 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
  - Taking down notes and new ideas/concepts, mindmaps and different ways of solving
  - Summary – Wrap-up



# 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**



# 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



**THANK YOU**

