

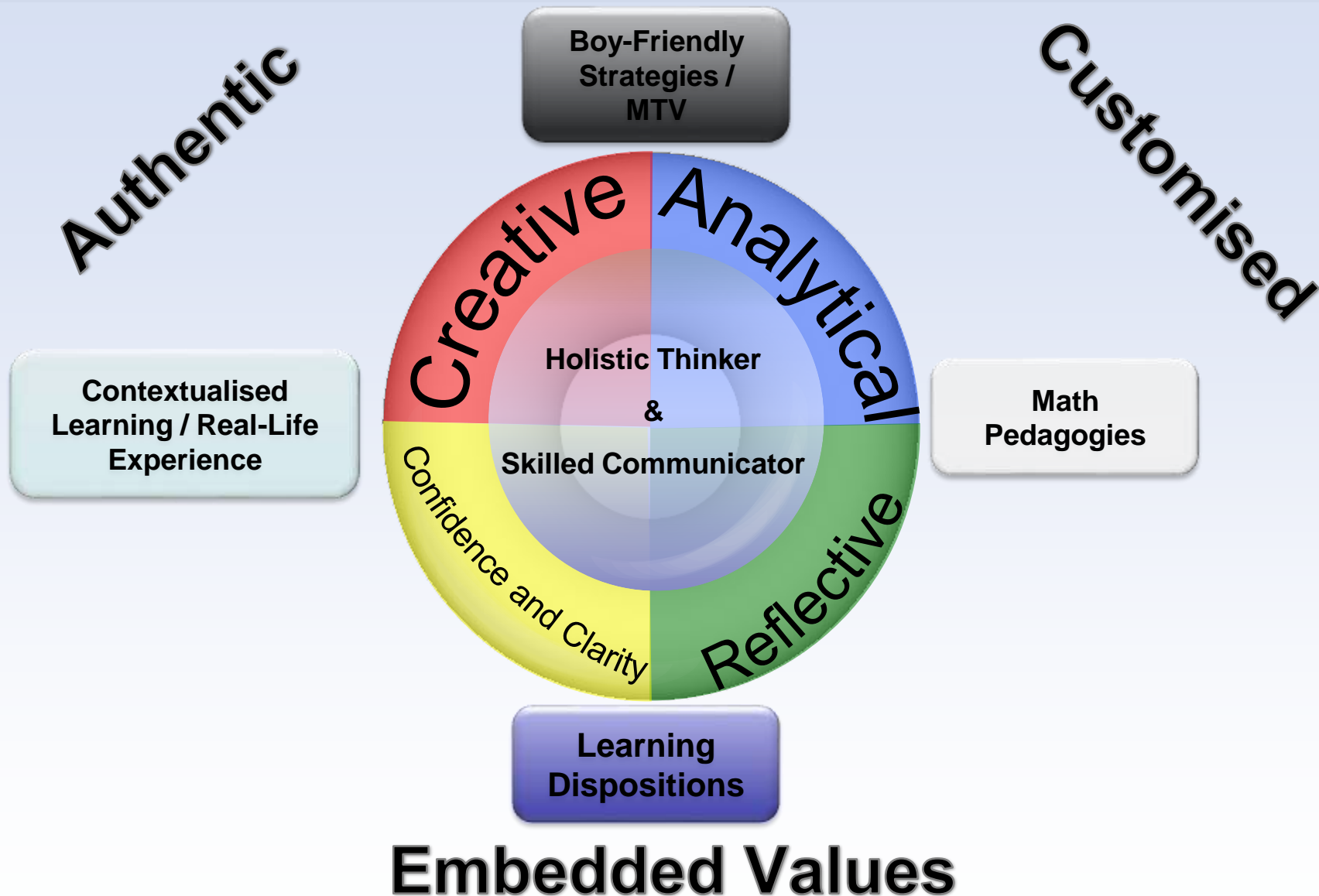
Nurturing a Holistic Thinker and Skilled Communicator in Mathematics



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



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

- 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

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



NEW Topics

- Algebra
- Fraction (division by fraction)
- Speed (and rate)
- Circles
- Pie Charts
- Nets



Materials 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 10-years' series)
- Practice Papers
- **Blue file** – Maths Workbook
- **Purple file** – Heuristics booklets, test/exam papers



Key Areas of Focus

- Involvement / Participation in Learning –
 - Cooperative Learning
 - Use of MTV Thinking Routines in classroom
 - Asking questions to seek clarity
- Problem-Solving using Heuristics
 - Checking for reasonableness and accuracy
 - Use of Alternative Solutions
 - Creating Questions
 - Identifying Misconception
- Math Journaling
(Think and Take notes)



Ways we hope to partner you

Rigor

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



Ways we hope to partner you

Presentation of Work (Neat and Organised)

- Ensure that there are proper steps and equations
- Ensure **proper filing** of Worksheets
- Ensure **corrections are complete**



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

