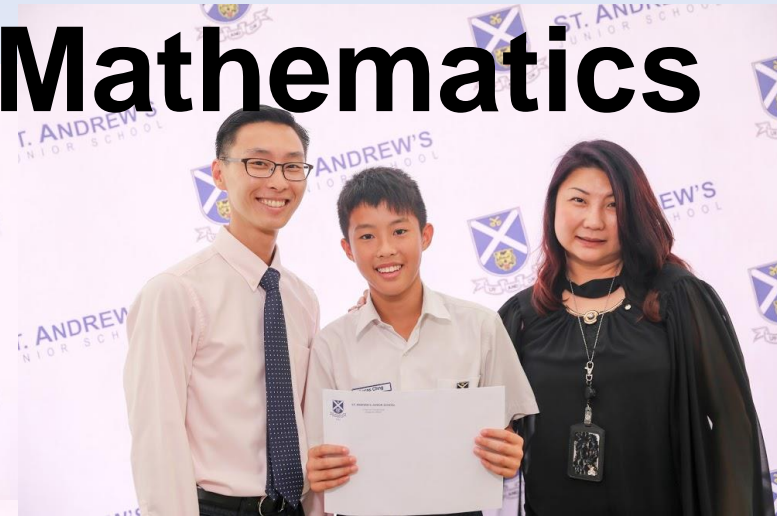
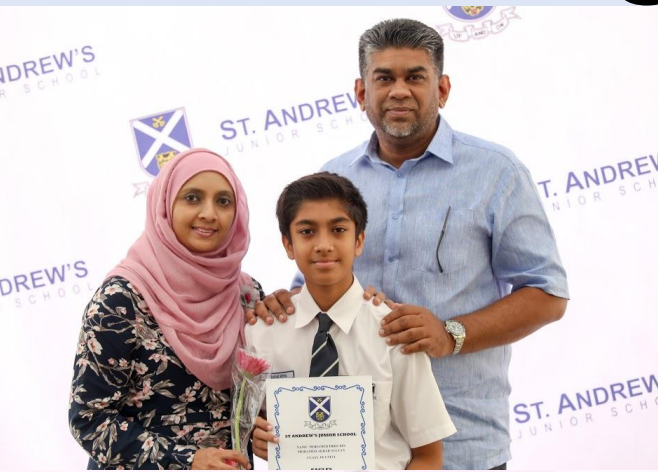
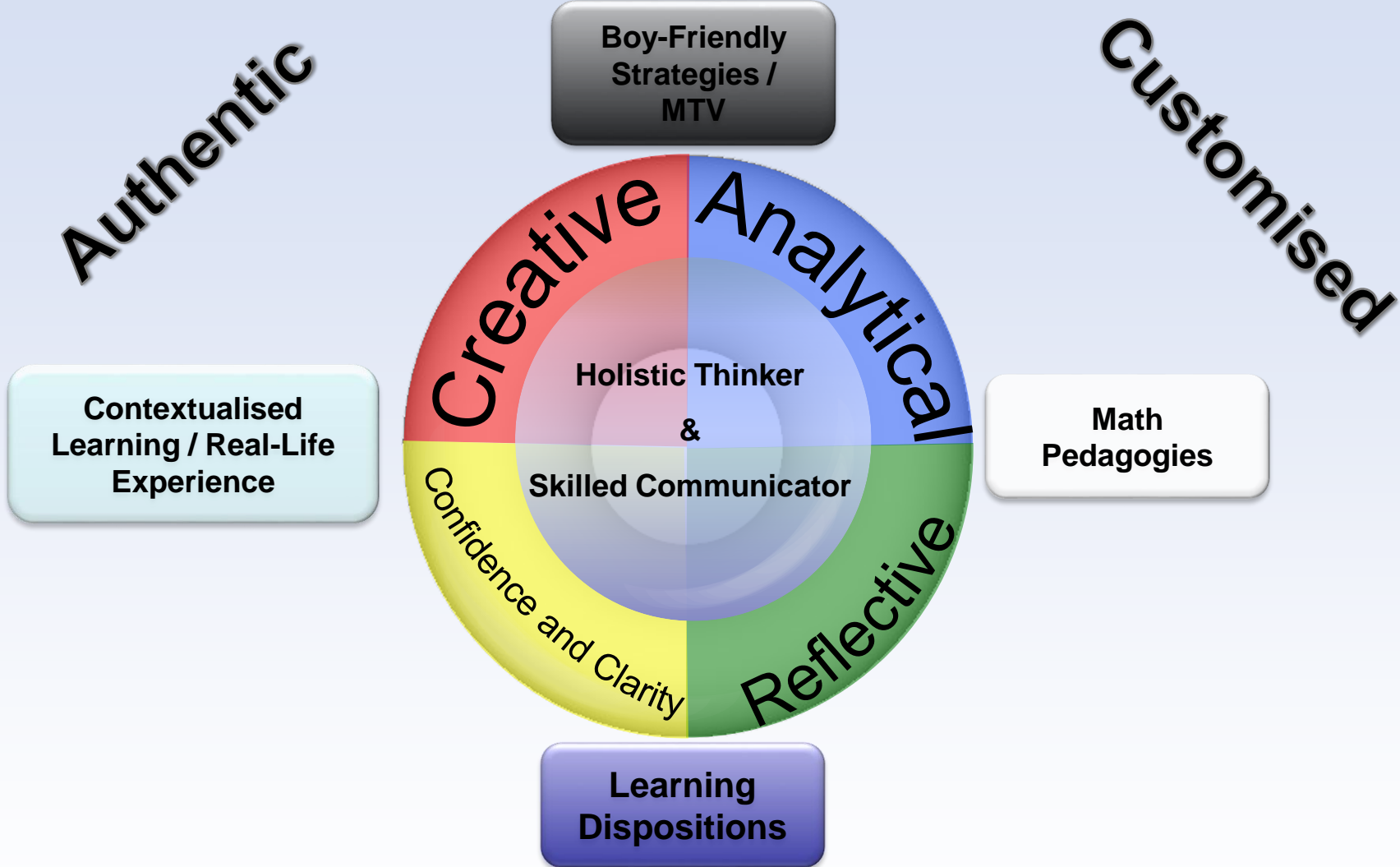


# Nurturing a Holistic Thinker and Skilled Communicator in Mathematics



**Our Math Department Vision**  
Every Saint, is a creative, 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?
- Have I checked for calculation errors?
- Have I checked for transfer errors?
- Have I transferred information correctly?
- Have I included the correct standard units?



# Format of SA1 Paper

Booklet	Item Type	No. of Questions	Weightage	Duration
Section A	MCQ	15	30%	1 hour 45 min
Section B	Short Answer Questions	20	40%	
Section C	Word Problems	8 (2 3-mark and 6 4-mark questions)	30%	

**Note: Total Marks is 80 marks**



# Format of SA2 Paper

Booklet	Item Type	No. of Questions	Weightage	Duration
Section A	MCQ	15	30%	1 hour 45 min
Section B	Short Answer Questions	20	40%	
Section C	Word Problems	8 (2 3-mark and 6 4-mark questions)	30%	

**Note: Total Marks is 80 marks**





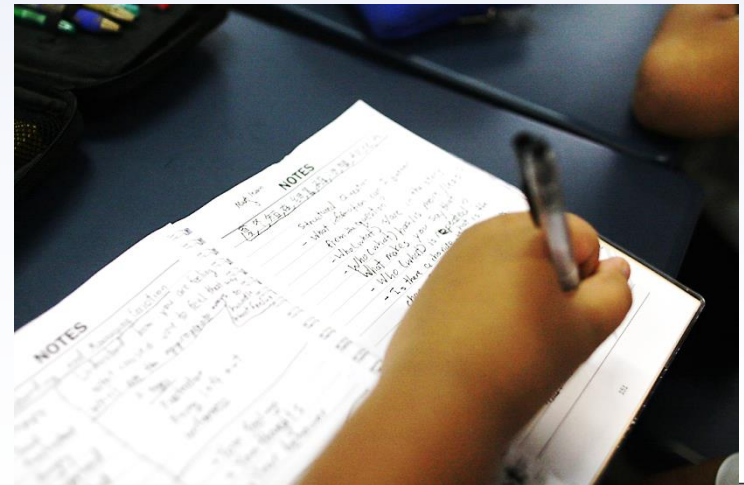
# Materials Used in Class

- My Pals are Here TB 4A and 4B
- My Pals are Here Workbook 4A and 4B
- Heuristics Booklets
- Practice Papers (prior to SA1 and SA2)
- **Blue file** – Semester 1 Workbook and Heuristics Booklets
- **Purple file** – Semester 2 Workbook and Heuristics Booklets



# 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



# 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 ( with thorough checking )**



# Ways we hope to partner you

- Develop and prepare them the following skills
  - Time Management
  - Exam-taking skills
  - Accuracy
  - Mental Calculation
- Control amount of time spent on computer or video games





**THANK YOU**

