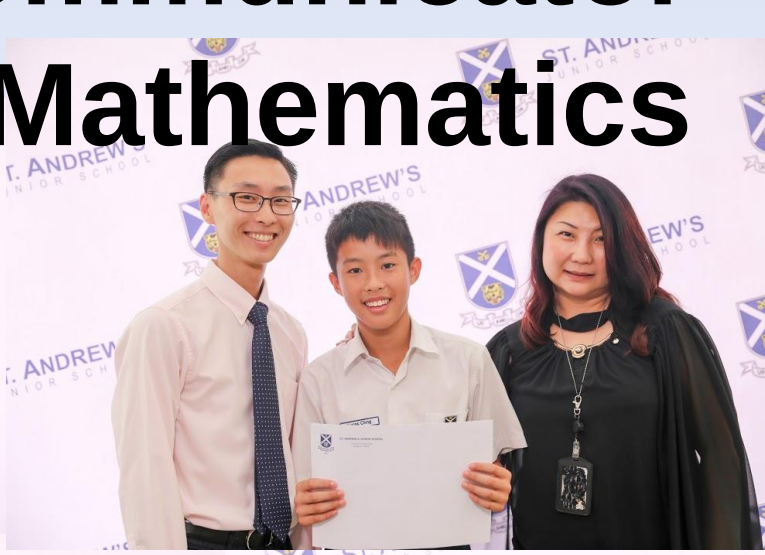
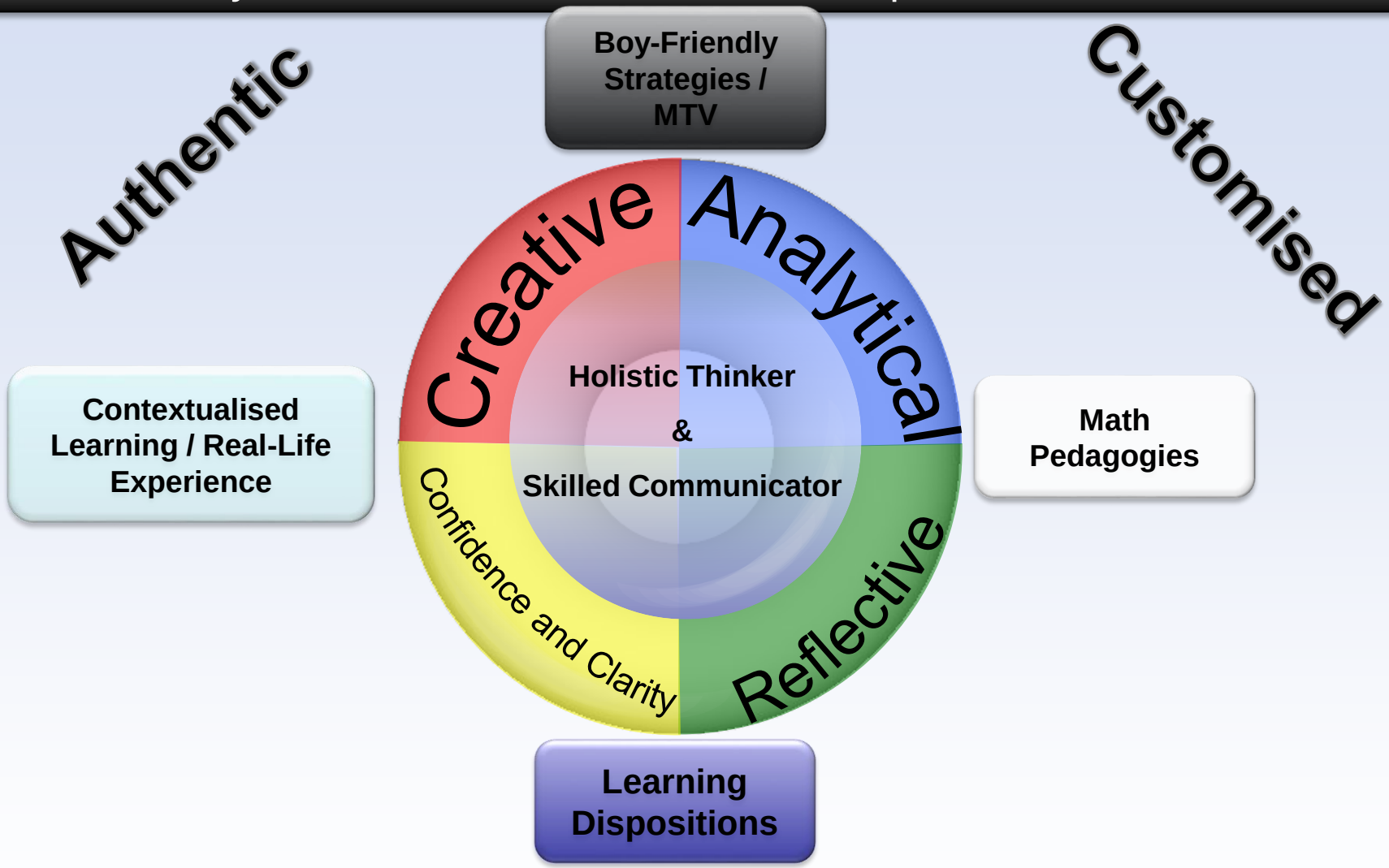
Nurturing a Holistic Thinker and Skilled Communicator in Mathematics






Our Math Department Vision

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



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.

Abstract Representation

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 PSLE Math (2018)

Paper	Item Type	No. of Questions	Marks per qns	Weightage	Duration / Paper weightage
Paper 1 Booklet A	MCQ	10	1	10%	1 h (45%)
		5	2	10%	
Paper 1 Booklet B	Short-answer	5	1	5%	
		10	2	20%	
Paper 2	Short-answer	5	2	10%	1h 30min (55%)
	Structured Long answer	12	3,4,5	45%	

Note: No Calculators are allowed for Paper 1

Materials Used in Class

- My Pals are Here TB 5A and 5B
- My Pals are Here Workbook 5A and 5B
- Termly Heuristics Booklets
- Practice Papers
- Blue file – Maths Workbook
- Purple file – Heuristics booklets, test/exam papers

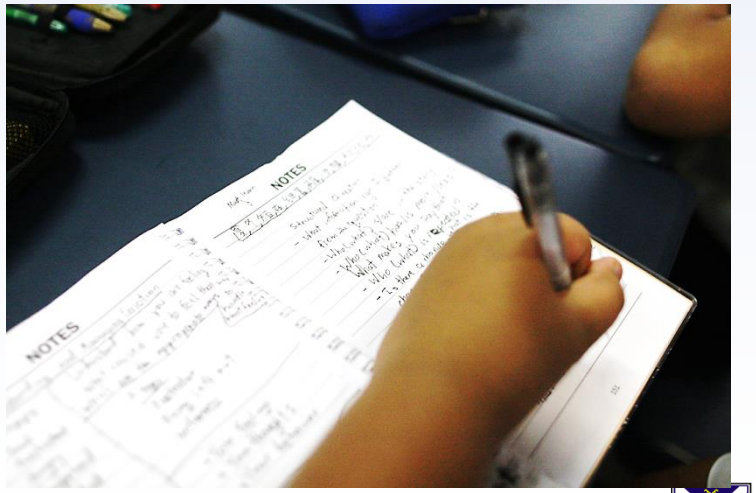
Key Areas of Focus

- 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

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


It's a beautiful day. I really want you to go outside and play.


Chattanooga Times Free Press
Bennett

Parents' Learning Festival for P5 & 6 on 25 Feb 2017

Equipping Parents to develop positive habits for Holistic Thinker This session focuses on :

- (1) recent trending in PSLE questions with guided solutions, strategies and methods explained, as well as alternative methods explored
- (2) SAJS problem-solving approach

THANK YOU