



# Sec 1 Academic Talk (Mathematics)

5 Jan 2018



# AGENDA

1. Transition from Primary 6 to Secondary 1
2. Mathematics Syllabus
3. KCPSS Math Programmes
4. KCPSS Math Assessment
5. KCPSS Math Homework Policy





# 1. TRANSITION FROM PRIMARY 6 TO SECONDARY 1



# Model Method vs Algebra Method





# Model Method vs Algebra Method

A man is 3 times as old as his son. In 10 years' time, the sum of their ages will be 76. How old was the man when his son was born?



# Model Method vs Algebra Method

100 grams of cheese cost 99 cents.

Find the number of grams of cheese that can be bought for \$2





# Model Method vs Algebra Method

$x$  grams of cheese cost 99 cents.

Find the number of grams of cheese that can be bought for  $y$  dollars.

[‘O’ level Paper ]



# PSLE Exam Format

Multiple-choice Question

Short-answer Question

Structured / Long-answer Question





# 'O' and 'N' level

~~Multiple-choice Question~~

Short-answer Question

Structured / Long-answer Question



# 'O' and 'N' level

Need for full working and proper presentation

- Self-Practice Book
- Textbook Examples

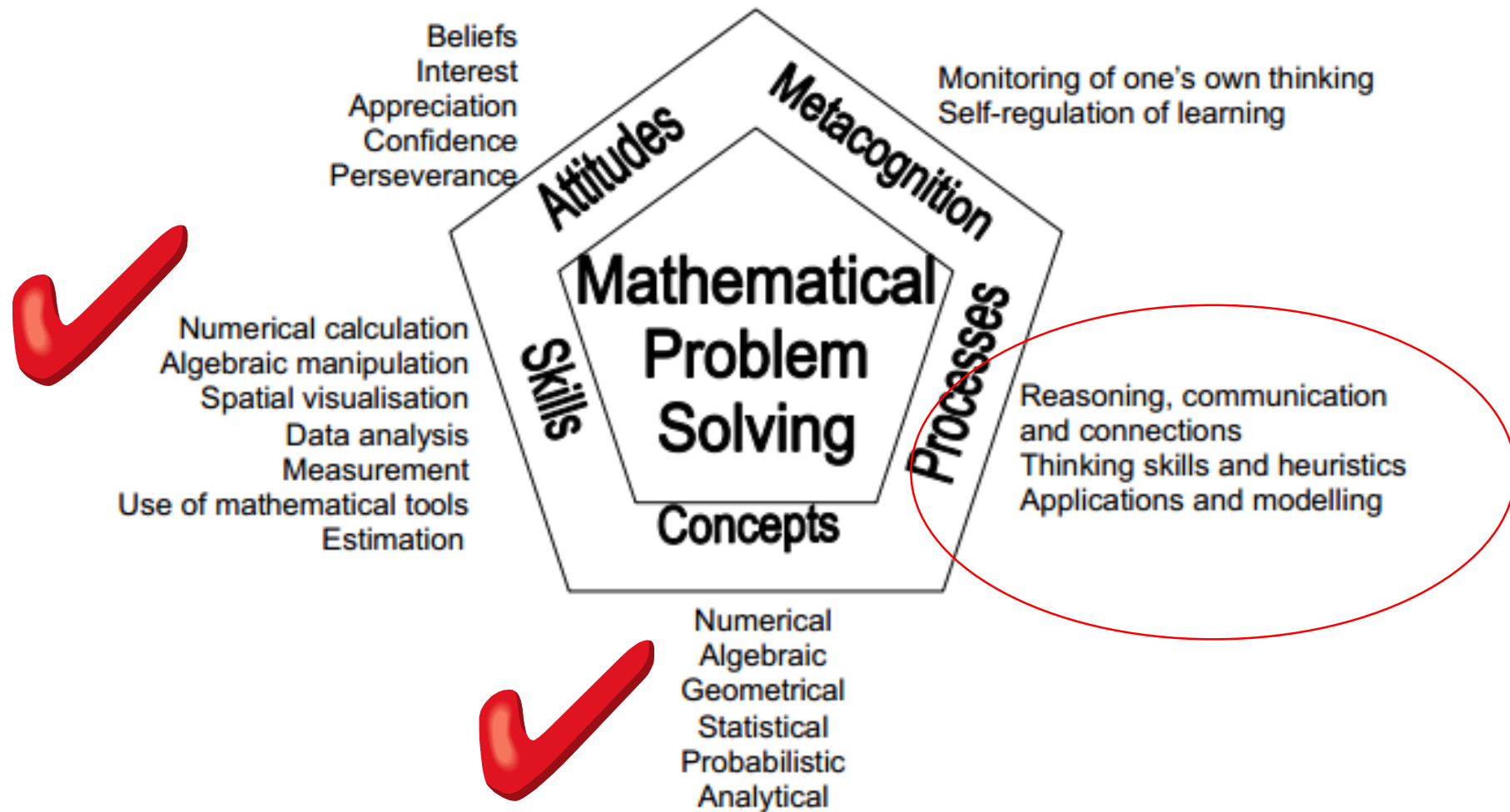




## 2. MATHEMATICS SYLLABUS



# Singapore Mathematics Framework





# New Math Syllabus

➤ Strengthening Maths Processes and critical thinking

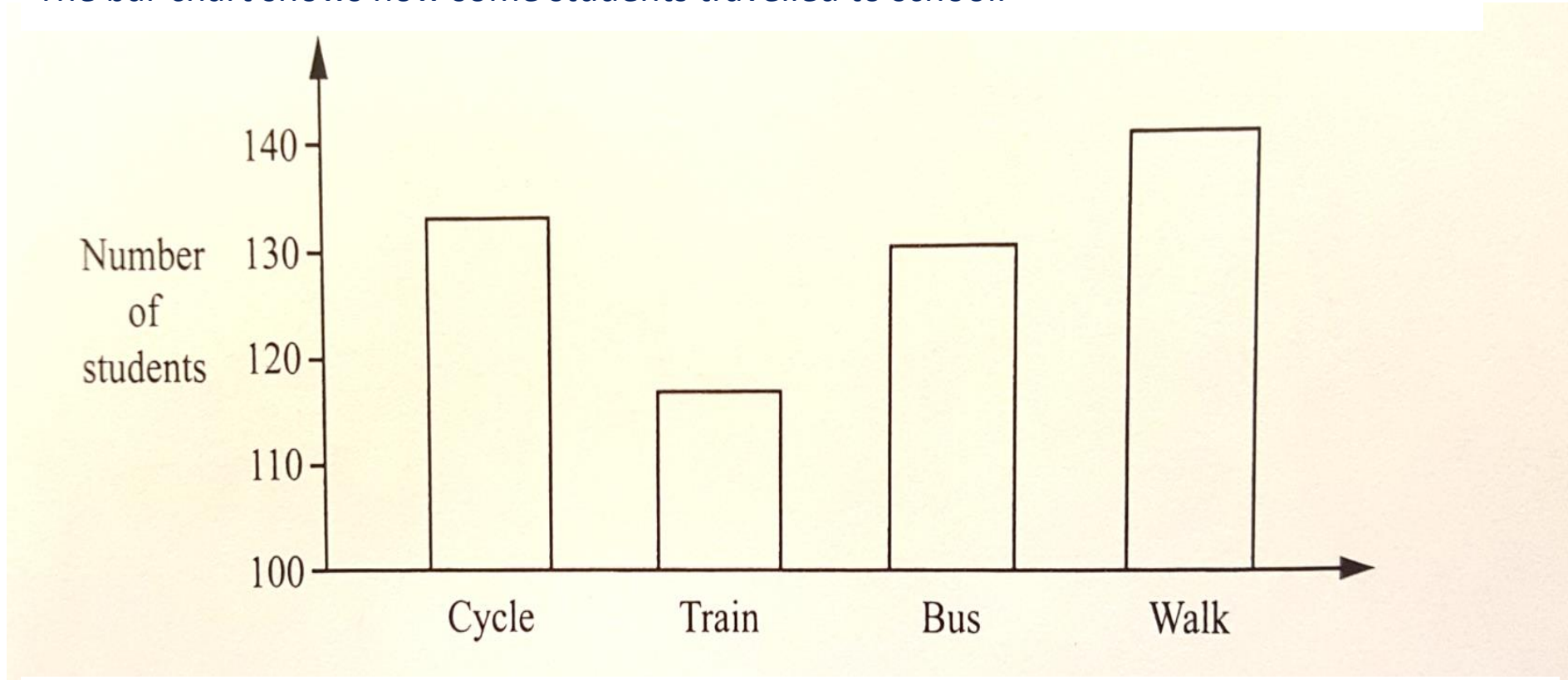
## Processes

- Reasoning
- Communication
- Connection
- Thinking skills and Heuristics
- Application and Modelling



# New Math Syllabus

The bar chart shows how some students travelled to school.



John says, "The number of students cycling to school is about twice the number travelling by train."

Is John correct? Explain your answer.



# New Math Syllabus

- Influencing Teaching and Learning in the classroom

## *Increasing emphasis on*

- Learning Experiences
- Problems in real-world contexts
- Mathematical Modelling



# New Math Syllabus

## 1. Learning Experiences

- ✓ Discuss examples of foreign exchange rates, interest rates etc
- ✓ Examine bills and receipts etc to find examples of uses of percentages, eg. discount, service charge, GST
- ✓ Using AlgeDisc and AlgeTools and other manipulatives
- ✓ Construct tables, bar graphs, pictograms etc
- ✓ Work collaboratively on a task to collect and classify data etc

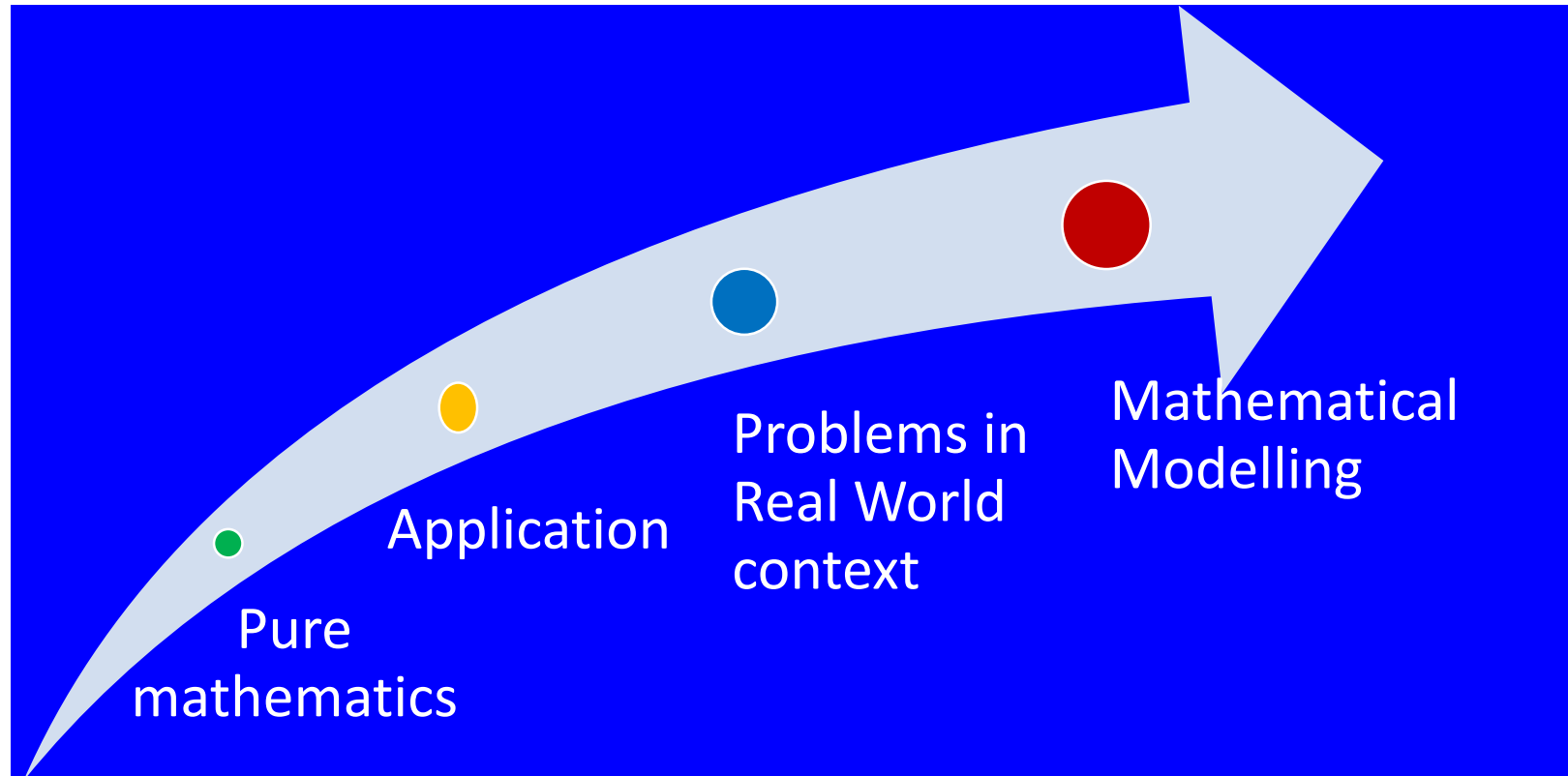




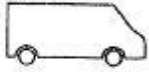
# New Math Syllabus

**2. Problems in real-world contexts**

**3. Mathematical Modelling**



# 2016 'O' level Question



## LOCAL MAIL RATES (inclusive of 7% GST)

For Letters, Postcards, Printed Papers  
and Packets/Packages

For Letters, Postcards, Printed Papers and Packets/Packages		
Weight Step Up To	Standard Mail	Non-Standard Mail
Regular		
20 g	\$0.30	\$0.60
40 g	\$0.37	
Large		
100 g	\$0.60	\$0.90
250 g	\$0.90	\$1.15
500 g	\$1.15	\$1.70
1 kg	\$2.55	
2 kg	\$3.35	

**Standard regular mail**  
(C5, C6 and DL size envelope)

**Standard large mail**  
(up to C4 size envelope)

## Stationery supplies (costs excluding 7% GST)

Item	Description	Unit cost
A4 paper	White printer paper	
	Pack of 500 sheets	\$3.90
	Bulk price (10+ packs)	\$3.50
	Bulk price (30+ packs)	\$3.30
Toner cartridges	Black printing	
	Average yield 1300 pages	\$147.00
	Colour printing	
	Cyan/yellow/magenta cartridges	\$151.00
	Average yield 1000 pages	
C5 envelopes	White self-seal envelopes	
	Pack of 10	\$1.50
	Pack of 500	\$34.00



# 2016 'O' level Question

10(e)

Suggest a sensible amount for him to charge a one-year subscription to the newsletter. Justify the decision you make and show your calculations clearly.



### 3. KCPSS MATH PROGRAMMES

- Activity-Based lessons, ICT lessons
- Various Competitions
  - Singapore and Asian Schools Math Olympiads, Rubik cube, Sudoku etc
- Post Exam Activity
  - Mathematical Modelling
- Mathelist (for Sec 1 Low Progress students )
  - Remediation / Peer Tutoring
  - Math Games
  - Learning Journeys





# Online Math Portal

- Self-Revision (Interactive Tools)
- Online Quizzes
- Fun Learning through Games and ICT Based Lessons, Skills mastery



## 4. KCPSS MATH ASSESSMENT

1 Express / 1 Normal Academic

Semester 1 (40%)		Semester 2 (60%)	
CA1 (15%)	SA1 (25%)	CA2 (15%)	SA2 (45%)
<u>Test (15%)</u> Test 1 - 30m Test 2 - 30m Test 3 - 30m	Mid-Year Exam	<u>Tests (10%)</u> Test 4 - 30m Test 5 - 30m  <u>AA (5%)</u> Average of all Pop Quizzes -20m  Project - 20m	End-Of-Year Exam



## 5. KCPSS MATH HOMEWORK POLICY

- **At least** one piece of homework for submission per week
- Online Quizzes
- File Check in Term 2
- Holiday Homework



# Sec 1 Math Teachers



**1Faith & 1Love**  
**Ms Thong Wei Qi**



**1Joy**  
**Mr Wilson Sitoh**



**1Peace**  
**Mrs Teo Shu Yen**



**1Peace**  
**Mr Lee Chong Min**



# Sec 1 Math Teachers



**1Grace**  
**Mr Brian Ho**



**1Hope**  
**Ms Jaclyn Lee**



THANK YOU

