

## **Mathematics**



## **Format of Paper**

Paper	Booklet	Item Type	No. of question s	No. of marks per question	Total Marks	Duration
1	A Mult	Multiple Choice	10 10	1	10 20	
	В	Short Answer	10	2	20	1h

### Break

7	Short Answer	10	2	20	
_	Structured	6	3 or 4	20	1 h
Total		46	-	90	2h



### **Additional Resources Used**

- A Problem A Day Worksheet (For selected classes)
- Mathematics Journal (For selected classes)
- Visible Thinking Book
- Heuristics Worksheet
- Mental Math

## **P5 Math Programme**

- Fortnightly Math Quiz
- Math Trail
- Play and Learn Math (PALM): Making Math Video
- Math Fun Week





## **Focus**

### To strengthen the following basic skills

- Four operations of whole numbers, fractions and decimals.
- Conversion e.g. kilograms to grams; fractions to percentage; decimals to fractions
- Math facts e.g. multiplication table

# Students who can cope with basic questions, they will be stretched further

Heuristic skills e.g. identifying a pattern
Problem solving strategies e.g. model drawing
Spatial Visualisation e.g. drawing of figures
Reasoning and communication skills e.g. Journal writing

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## Science





## **Teaching and Learning of Science**

These are the 3 areas to master:

#### **Knowledge (Content)**

#### Students need to know and understand:

- (a) Scientific facts, concepts and principles
- (b) Scientific terminology and conventions
- (c) Scientific instruments and apparatus

#### **Process Skills**

#### Students need to know how to:

- (a) Interpret information (including pictorial, tabular and graphical)
- (b) Investigate using one or a combination of process skills

#### Application of Knowledge and Process Skills

Students need to apply scientific facts, concepts and principles to new situations.

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## **Format of Paper**

- The mastery of the 3 areas can be demonstrated in:
  - One written paper comprising two booklets:

#### Booklets A and Booklet B

Format of Paper (Foundation)								
Booklet	Duration	Item Type	No. of questions	Marks per question	Marks			
Α		Multiple-choice	18	2	36			
В	1h 15mins	Structured	6 – 7	2 – 3	14			
В		Open-ended	5 – 6	2 – 4	20			





## Student Learning Experiences

How do we provide the best learning experience for our students to master the **three** areas?

#### **Engage students**

 Hands-on investigation to explore concepts (Inquiry Based Learning)



#### Provide opportunities for Practice, Review and Revision



- Wrap-up and sense-making packages:
  - Science Process Skills
  - MCQ Companion
  - Concept Mastery/School-Based Assessment
- Supplementary / Additional support



#### Use strategies to support student learning

- SLPS to answer science questions:
  - <u>S</u>tudy question, <u>L</u>ink to concepts, <u>P</u>lan answer, <u>S</u>tudy answer
- CER to construct explanation:
   Claim, Evidence, Reasoning
- #Concepts to support students in retrieving concepts



## **Thank You**

