

# **MATHEMATICS**

## **Teacher's Guidebook**

**PRIMARY 3**

**NCERD**

# Notes

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  4. Data Processing
  5. Geometry

## Part II Units

### Unit 1. 1. 5-digit numbers

Thousands  
Place value  
Ten thousands  
Addition (1)  
Addition (2)  
Subtraction (1)  
Subtraction (2)

### Unit 2. Multiplication

Multiplication table (6)  
Multiplication table (7)  
Multiplication table (8)  
Multiplication table (9)  
Multiplying by tens  
Multiplying by a 1-digit number

### Unit 3. Geometry

Straight lines, rays and line segments  
Measuring line segments  
Angles  
Types of angles  
The rectangle  
The square  
The perimeter  
The area

**Unit 4. Division**

Meaning of division

The relation between division and multiplication

Dividing by a 1-digit number

**Unit 5. Fractions**

Fractions

Equal fractions

**Unit 6. Data representation**

Reading graphs

Data representation

# How to Use This Guide

This guide is designed so that it is useful for every teacher, according to his/her ability.

The description of a unit consists of three parts :

1. What to Teach (What is the meaning of the subject ?)
2. Why to Teach (Why is the subject worth teaching/learning ?)
3. How to Teach (How is the subject taught/learnt ?)

## "What" and "Why"

The first two parts are places where readers study both mathematical and practical meaning of the subjects.

A Beginner might feel these parts difficult. But he/she need not mind. While he/she increase experience, he/she will gradually become used to it.

The authors regard "What" and "Why" very important for teachers to do their classes. Why ?

The instruction is a practical process. If children seem to be unable to accept a material, the teacher must change it to what children can accept. Sometimes, or most of cases, teacher might be obliged to tell "lies", from a standpoint of mathematics. This is the instruction !

But there is a big difference between  
"telling a lie with knowing it a lie" and  
"telling a lie without knowint it a lie".

Knowledge of mathematics helps teachers to understand what practical strategies they are implicitly or explicitly using in his class.

It is a matter of course that those who teach mathematics need knowledge of mathematics. "What" and "Why" are places where teachers strengthen or increase their knowledge of mathematics.

## "How"

The authors prepared teaching scenarios that are recommendable, especially for beginners. Each consists of such basics that are important and applicable to developing one's own classes.

"Copying good models and developing" is always the best way to reach skills.

# **I** Contents of “Primary 3”

# 1. Contents

Unit	Subunit	Subjects	Domains
1. 5-digit numbers	1. Thousands		
	2. Place value		
	3. Ten thousands		
	4. Addition (1)		
	5. Addition (2)		
	6. Subtraction (1)		
	7. Subtraction (2)		
2. Multiplication	1. Multiplication table (6)		
	2. Multiplication table (7)		
	3. Multiplication table (8)		
	4. Multiplication table (9)		
	5. Multiplying by tens		
	6. Multiplying by a 1-digit number		
3. Geometry	1. Straight lines, rays and line segments	straight lines, rays and line segments	G
	2. Measuring line segments	line segment	G, M
	3. Angles	angle, vertex, side	G
	4. Types of angles	right/acute/obtuse angle	G, M
	5. The rectangle	rectangle	G
	6. The square	square	G
	7. The perimeter	perimeter	G, M
	8. The area	area	G, M
4. Division	1. Meaning of division		
	2. The relation between division and multiplication		
	3. Dividing by a 1-digit number		
5. Fractions	1. Fractions		
	2. Equal fractions		
6. Data representation	1. Reading graphs		
	2. Data representation		

N : Number and Arithmetic  
 M : Quantity and Measurement  
 R : Relation and Function  
 D : Data Processing  
 G : Geometry

## 2. Time Allocation to Units

Unit	Subunit	Hours	
1. 5-digit numbers	1. Thousands		
	2. Place value		
	3. Ten thousands		
	4. Addition (1)		
	5. Addition (2)		
	6. Subtraction (1)		
	7. Subtraction (2)		
2. Multiplication	1. Multiplication table (6)		
	2. Multiplication table (7)		
	3. Multiplication table (8)		
	4. Multiplication table (9)		
	5. Multiplying by tens		
	6. Multiplying by a 1-digit number		
3. Geometry	1. Straight lines, rays and line segments		
	2. Measuring line segments		
	3. Angles		
	4. Types of angles		
	5. The rectangle		
	6. The square		
	7. The perimeter		
	8. The area		
4. Division	1. Meaning of division		
	2. The relation between division and multiplication		
	3. Dividing by a 1-digit number		
5. Fractions	1. Fractions		
	2. Equal fractions		
6. Data representation	1. Reading graphs		
	2. Data representation		



### **3. Brief Explanation of the Contents**

**Number and Arithmetic**

**Natural Number**

**RESERVED**

**Number and Arithmetic**  
**Rational Number**

**RESERVED**

# Quantity and Measurement

**RESERVED**

# Relation and Function between Quantities

**RESERVED**

# Data Processing

**RESERVED**

# Geometry

(Unif 3)

# **II UNITS**