

Chapter 3

Curriculum Structure

I. Curriculum Organization

Pupils may have already experienced some mathematical knowledge informally before entering primary schools. To get a good foundation in mathematics for further studies, pupils need to learn mathematical knowledge and skills formally in the primary schooling. The primary mathematics curriculum is divided into five learning dimensions, namely, Number, Shape and Space, Measures, Data Handling and Algebra.

Dimensions	Number (N)	Shape and Space (S)	Measures (M)	Data Handling (D)	Algebra (A)
Contents	• Whole number • Nature of number • Fractions, decimals & percentages • Calculating devices	• Three dimensional shapes • Lines • Two dimensional shapes • Angles • Directions	• Money • Length • Time • Weight • Capacity • Perimeter • Area • Volume • Speed	• Statistics	• Algebraic symbols • Equations

In designing the learning objectives of various learning dimensions, relevant and inter-related topics are grouped into units. Each unit is further divided into learning objectives which progress from easy and concrete to difficult and abstract according to pupils' cognitive development. Basic concepts in mathematics will first be learnt, and gradually be deepened and enriched. Pupils then learn how to apply the acquired mathematical knowledge to observe, think and solve problems.

To broaden pupils' view and arouse their interest, enrichment topics are suggested in the curriculum. Teachers can select some of these topics on the basis of the abilities and interest of pupils and the time available. Teachers can also select their own enrichment topics or some existing units for further discussion. Since enrichment topics are optional, they are not suggested in tests or examinations.

II. Time Allocation

The proposed number of teaching periods, which includes ETV periods, is 160 in a school year. To facilitate the arrangement of teaching schedules, the curriculum provides a suggested time allocation for teaching. Since various units differ in length and level of difficulty, the suggested periods for every unit will be different as well. Teachers can adjust the number of periods for various units according to the needs of the school and pupils. To cater for learner differences, teachers need more time to carry out different classroom activities. Hence, 10%-16% of the periods are suggested to be reserved as spare periods for each Key Stage. Teachers can make use of the spare periods for teaching enrichment topics, further exploration of certain units or adjusting the rate of teaching and learning.

The following is the time allocation suggested for each dimension:

Dimensions Suggested periods * Key Stages	Number	Shape & Space	Measures	Data Handling	Algebra	Spare Periods	Total number of suggested periods
1	221 (46 %)	74 (15 %)	97 (20 %)	12 (3 %)	0 (0 %)	76 (16 %)	480 (100 %)
2	196 (41 %)	63 (13 %)	78 (16 %)	46 (10 %)	33 (7 %)	64 (13 %)	480 (100 %)
Total	417 (44 %)	137 (14 %)	175 (18 %)	58 (6 %)	33 (3 %)	140 (15 %)	960 (100 %)

* % of the total number of periods are given in brackets.