4.2 An Overview of Learning Modules and Units

4. 2. 1 Number and Algebra Dimension

Key Stage 3 (S1 - S3)	Key Stage 4 (S4 - S5)
Number and Number Systems	
• Directed Numbers and the Number Line (12) • Numerical Estimation (5) • Approximation and Errors (7) • Rational and Irrational Numbers (6)	
Comparing Quantities	
• Using Percentages (17) • More about Percentages (7) • Rate and Ratio (8)	
Observing Patterns and Expressing Generality	
• Formulating Problems with Algebraic Language (14) • Manipulations of Simple Polynomials (10) • Laws of Integral Indices (10) • Factorization of Simple Polynomials (15)	• More about Polynomials (9) • Arithmetic and Geometric Sequences and Their Summation (10)
Algebraic Relations and Functions	
• Linear Equations in One Unknown (7) • Linear Equations in Two Unknowns (15) • Identities (8) • Formulas (14) • Linear Inequalities in One Unknown (7)	• Quadratic Equations in One Unknown (17) • More about Equations (15) • Variations (13) • Linear Inequalities in Two Unknowns (15) • Exponential and Logarithmic Functions (18) • Functions and Graphs (16)

Note: The number in the bracket denotes the estimated time ratio for the unit.

4. 2. 2 Measures, Shape and Space Dimension

Key Stage 3 (S1 - S3)	Key Stage 4 (S4 - S5)
Measures in 2-Dimensional (2D) and 3-Dimensional (3D) figures	
• Estimation in Measurement (6) • Simple Idea of Areas and Volumes (15) • More about Areas and Volumes (18)	
Learning Geometry through an Intuitive Approach	
• Introduction to Geometry (10) • Transformation and Symmetry (6) • Congruence and Similarity (14) • Angles Related with Lines and Rectilinear Figures (18) • More about 3-D Figures (8)	• Qualitative Treatment of Locus (6)
Learning Geometry through a Deductive Approach	
• Simple Introduction to Deductive Geometry (27) • Pythagoras' Theorem (8) • Quadrilaterals (15)	• Basic Properties of Circles (39)
Learning Geometry through an Analytic Approach	
• Introduction to Coordinates (9) • Coordinates Geometry of Straight Lines (12)	• Coordinate Treatment of Simple Locus Problems (14)
Trigonometry	
• Trigonometric Ratios and Using Trigonometry (26)	• More about Trigonometry (29)

Note: The number in the bracket denotes the estimated time ratio for the unit.

4. 2. 3 Data Handling Dimension

Key Stage 3 (S1 - S3)	Key Stage 4 (S4 - S5)
Organization and Presentation of Data	
• Introduction to Various Stages of Statistics (5) • Construction and Interpretation of Simple Diagrams and Graphs (24)	
Analysis and Interpretation of Data	
• Measures of Central Tendency (19)	• Measures of Dispersion (13)
Simple Statistical Surveys	
	• Uses and Abuses of Statistics (11)
Probability	
• Simple Idea of Probability (12)	• More about Probability (11)

4.2.4 Further Applications Module

Key Stage 3 (S1 - S3)	Key Stage 4 (S4 - S5)
	• Further Applications (30)

Note: The number in the bracket denotes the estimated time ratio for the unit.