

1. Number System and Numerical Reasoning

- Place value and number sense for whole numbers and decimals
- Comparing, ordering, and rounding whole numbers and decimals
- Multi-digit addition, subtraction, multiplication, and division
- Mental and written calculation strategies
- Estimation, approximation, and reasonableness checks
- Factors, multiples, primes, composite numbers, GCF, and LCM at an age-appropriate level
- Divisibility rules and number structure
- Order of operations
- Integers and the number line at an introductory level
- Absolute value as distance from zero at an introductory level where appropriate
- Powers and exponents at an introductory level
- Number representations: expanded form, models, number lines, tables, and diagrams

2. Fractions, Decimals, Percentages, Ratio, and Proportion

- Fractions as numbers, parts of sets, parts of shapes, and points on number lines
- Equivalent fractions, simplification, and comparison
- Fraction operations in age-appropriate cases
- Fractions of quantities
- Decimal place value, comparison, rounding, and operations
- Connections between fractions, decimals, and percentages
- Percent as “per hundred”
- Percentage of a quantity in simple contexts
- Introductory percentage increase and decrease where appropriate
- Ratios as part–part and part–whole comparisons
- Equivalent ratios and ratio tables
- Unit rate and unit price at an introductory level
- Proportional reasoning in tables, diagrams, graphs, and practical contexts
- Scale drawings and scale factor at an introductory level

3. Algebraic Thinking, Expressions, Equations, and Functions

- Number patterns, visual patterns, and sequences
- Rule finding and pattern generalisation
- Input-output tables and function-machine thinking
- Variables and symbols for unknown or changing quantities
- Writing expressions from verbal and contextual descriptions
- Evaluating simple expressions by substitution
- Properties of operations in applied contexts
- Simplifying simple expressions at an introductory level
- One-step and two-step equations
- Equations from real contexts
- Inequalities and number-line representation at an introductory level where appropriate
- Coordinate grids and plotting points

- Graphing simple relationships from tables
- Linear patterns and rate of change at an introductory level

4. Geometry, Measurement, and Mensuration

- Metric units for length, mass, capacity, volume, time, and temperature
- Choosing appropriate tools and units
- Unit conversions within the metric system
- Time, schedules, timetables, and elapsed time
- Perimeter of regular, irregular, and composite shapes
- Area of rectangles, triangles, parallelograms, and composite rectilinear figures where appropriate
- Volume of cubes, cuboids, and simple prisms using unit cubes and formulas where appropriate
- Surface area using nets at an introductory level
- Angle types and angle relationships in lines, triangles, and quadrilaterals
- Parallel and perpendicular lines
- Properties and classification of triangles, quadrilaterals, polygons, and 3D solids
- Symmetry, reflection, translation, and rotation at an introductory level
- Coordinate grids, maps, routes, and spatial layouts
- Circles and circumference at an introductory level where appropriate
- Introductory right-triangle distance reasoning where appropriate

5. Data, Statistics, and Probability

- Data collection from surveys, counts, observations, and experiments
- Fair sampling and data quality at an introductory level
- Organising data in tables, tallies, frequency lists, and spreadsheets where appropriate
- Bar charts, pictographs, line plots, line graphs, and simple histograms where appropriate
- Reading and interpreting tables and graphs
- Comparing categories and identifying trends
- Measures of centre: mean, median, and mode at an age-appropriate level
- Range and variability at an introductory level
- Comparing simple data sets
- Probability language and probability of simple events
- Experimental vs expected or theoretical outcomes at an introductory level
- Introductory compound probability in simple independent cases where appropriate

6. Math Modelling, Problem Solving, and Financial Literacy

- Multi-step problem solving and strategy selection
- Modelling with tables, diagrams, expressions, graphs, and simple equations
- Estimation, approximation, and reasonableness checks
- Interpreting constraints such as cost, time, quantity, materials, and measurement limits
- Comparing possible solutions and methods
- Money calculations with decimals
- Budgets, totals, change, discounts, tax, and unit price at an age-appropriate level

Math Exam Syllabus

Grades 5-6



- Value comparisons and simple “best buy” reasoning
- Communicating reasoning using calculations, diagrams, units, and short justifications