

1. Fractions, Decimals, Percents, and Ratio

- Fraction concepts and equivalence
- Comparing and ordering fractions
- Fraction operations in age-appropriate cases
- Fractions of quantities
- Decimal place value and operations
- Comparing, ordering, and rounding decimals
- Fraction-decimal conversions
- Percent as “per hundred”
- Percent of a quantity
- Introductory percent increase and decrease
- Ratios and equivalent ratios
- Unit rate and proportional reasoning
- Practical contexts involving sharing, measurement, money, scale, mixtures, and comparison

2. Number System and Numerical Reasoning

- Place value with whole numbers and decimals
- Rounding and estimation
- Efficient mental and written calculation strategies
- Integers and the number line
- Integer operations at an introductory level
- Factors, multiples, greatest common factor, and least common multiple
- Prime numbers and prime factorization at an introductory level
- Order of operations
- Exponents at an introductory level
- Reasonableness checks and numerical precision
- Numerical reasoning in measurement, data, and STEM contexts

3. Expressions, Equations, and Algebraic Thinking

- Variables and symbols for unknown quantities
- Writing expressions from words and contexts
- Simplifying expressions
- Distributive property
- Combining like terms at an introductory level
- One-step equations
- Two-step equations
- Inequalities and their interpretation
- Patterns, rules, and algebraic generalization
- Equations and inequalities in real-life contexts

4. Coordinate Reasoning and Early Functions

- Coordinate plane basics
- Plotting and interpreting points
- Ordered pairs
- Coordinate grids in all quadrants where appropriate
- Input-output tables
- Rule finding from tables
- Arithmetic sequences
- Graphing simple relationships
- Introductory rate of change
- Connecting tables, graphs, rules, and contexts

5. Geometry and Measurement

- Area of triangles, parallelograms, rectangles, and composite figures
- Volume of rectangular prisms
- Surface area at an introductory level
- Angle relationships
- Circles and circumference at an introductory level
- Unit conversions within measurement systems
- Coordinate geometry in simple contexts
- Introductory right-triangle distance reasoning where appropriate
- Scale, spatial reasoning, and visual interpretation
- Measurement in practical and science-related contexts

6. Statistics and Probability

- Data collection and organisation
- Data displays and interpretation
- Tables, charts, line plots, bar graphs, and simple line graphs
- Mean, median, and range
- Comparing data sets
- Variation and spread at an introductory level
- Probability of simple events
- Introductory compound probability in simple independent cases
- Experimental vs theoretical probability
- Data-based conclusions and limitations

7. Math Problem Solving and Modelling

- Multi-step word problems
- Choosing suitable operations and strategies
- Modelling with diagrams, tables, graphs, expressions, and equations
- Estimation and checking reasonableness
- Financial and real-world problem contexts
- Rates, unit prices, value comparison, and practical decisions
- Constraints such as cost, time, materials, and quantity
- Communicating reasoning using numbers, diagrams, units, and short explanations