

Year 7 - Mathematics



Autumn Term

Number Sense and Calculations 1: using number lines; integer place value; decimal place value; ordering negative numbers; rounding integers; rounding decimals; adding and subtracting integers and decimals; multiplying by 10, 100 and 1000; multiplying using place value; using a written method to multiply integers and decimals

Progress Check

Number Sense and Calculations 2: dividing numbers into equal groups; using a written method to divide integers; dividing with a remainder; using a written method to divide by integers to get a decimal answer; using a written method to divide by decimals; adding and subtracting with negative numbers; multiplying and dividing with negative numbers; calculating with roots and powers; using the correct order of operations; using the commutative laws; using the associative laws.

Assessment 1

Expressions and Equations: algebraic notation and terminology; simplifying expressions containing single variables, multiple variables and non-linear terms; substituting into expressions with single and multiple operations; substituting into algebraic and real-life formulae; solving one-step and two-step equations.

Progress Check

Measures: converting units of time; using clocks; calculating with time; using timetables and calendars; estimating and measuring length, mass and capacity; converting units of length, mass and capacity; using appropriate units

Assessment 2

Spring Term

2D Shapes: line and shape properties; symmetry;

Perimeter and Area: finding perimeters using grids; finding perimeters of rectangles and simple shapes; finding the perimeter of compound shapes; finding areas using grids; finding the area of rectangles, triangles and compound shapes – including compound shapes containing triangles.

Progress Check

Coordinates – reading and plotting coordinates; solving shape problems involving coordinates;

Factors, Multiples and Primes: finding the lowest common multiple; finding factors and using divisibility tests; finding the highest common factor; finding prime numbers; prime factor decomposition.

Assessment 3

Fractions 1: finding fractions of shapes; constructing fractions; finding equivalent fractions; simplifying fractions; ordering fractions; converting between mixed numbers and improper fractions.

Progress Check

Fractions 2: adding and subtracting fractions and mixed numbers.

Brackets: using the distributive law; expanding single brackets and simplifying expressions; factorising into one bracket.

Assessment 4

Summer Term

Angles: types of angles; estimating, measuring and drawing angles; angles on a line and about a point; vertically opposite angles; angles in triangles.

Handling Data and Statistical Diagrams 1: calculating the range, median and mean; finding the mode.

Progress Check

Handling Data and Statistical Diagrams 2: interpreting frequency tables and two-way tables; drawing and interpreting tally charts, pictograms and bar charts; collecting and recording data using tables; finding averages from frequency tables; choosing suitable averages and solving problems.

Proportion: solving proportion problems.

End of Year Assessment

Fractions, Decimals and Percentages: reciprocals; multiplying and dividing fractions; multiplying and dividing with mixed numbers; finding the fraction of an amount with and without a calculator; converting between fractions, decimals and percentages; ordering fractions, decimals and percentages; writing numbers and percentages of other numbers.

Probability: using probability phrases; writing probabilities as fractions, decimals and percentages; probabilities of mutually exclusive events; sample space diagrams.