

Year 7 Maths – Scheme of Work

Autumn Topics

Sequences	Describe and continue sequences
	Find the next term(s)
	Linear and non-linear sequences
	Continue linear sequences
	Continue non-linear sequences
	Term-to-term rules
	Find missing terms
Algebraic Notation and Substitution	1-step Function machines (numbers)
	1-step Function machines (algebra)
	Find a function (one step)
	Substitution (one step)
	2-step function machines (numbers)
	2-step function machines (algebra)
	Find a function (two-step)
	Substitution (two-step)
Expressions and Equations	Equality and Equivalence
	Related Facts
	Like and Unlike Terms
	Collect like terms
	Solve 1-step equations (addition and subtraction)
	Solve 1-step equations (multiply and divide)
Place Value, Ordering and Rounding	Write integers in numerals and words
	Intervals on a number line
	Compare and Order integers
	Place value for decimals
	Decimals on a number line
	Compare and order decimals
	Round to powers of 10
	Round to the nearest integer
	Round to decimal places
	Powers of 10 (Extend)
	Numbers greater than 1 in standard form (Extend)
	Negative Powers of 10 (Extend)
	Numbers between 0 and 1 in standard form (Extend)
Four Operations	Add and subtract integers
	Add and subtract decimals
	Multiply and divide by 10, 100 and 1000
	Multiply by 0.1 and 0.01 (Extend)
	Multiply Integers
	Divide Integers
	Multiply Decimals
	Divide decimals by Integers
	Divide by Decimals (Extend)

Number

Algebra

Geometry

Stats/Data

Ratio

	Order of Operations
Averages and Range	Mode
	Mean
	Median
	Range
	Solve problems with average and range
Rounding and Estimation	Round to 1 significant figure
	Round to 2 or more significant figures
	Estimate answers to calculations
	Solve problems with estimation
	Understand and use error interval notation (Extend)

Spring Topics

Graphing Data	Pictograms
	Bar Charts
	Dual bar charts
	Composite bar charts
	Coordinates in the first quadrant
	Scatter graphs
	Correlation
	Lines of best fit
	Time series graphs
	Non-linear relationships
Fraction, Decimals and Percentages	Represent tenths and hundredths
	Number lines with fractions and decimals
	Tenths, hundredths, fifths and quarters
	Eighths and thousandths
	Understand percentages
	Convert simple fractions, decimals and percentages
	Fractions as a diagram
	Fractions on a number line
	Equivalent fractions
	Compare and order fractions
	Fractions as division
	Convert fractions, decimals and percentages
	Fractions decimals and percentages greater than 1 (Extend)
Directed Number	Directed number and number lines
	Compare and order directed numbers
	Calculations that cross zero
	Directed numbers and zero pairs
	Add directed numbers
	Subtract directed numbers
	Multiply and divide directed numbers
	Order of operations with directed numbers
	Use a calculator with directed number

Fractions and Percentages of an Amount	Use a fraction to find a whole
	Percentages of an amount (non-calculator)
	Percentages of an amount (calculator)
	Percentage increase and decrease
	Use a percentage to find the whole (Extend)
	Solve problems with fractions and percentages greater than 1 (Extend)
Perimeter and Area	Convert metric units of length
	Perimeter of a polygon
	Perimeter of a compound shape
	Area of rectangles and parallelograms
	Area of a triangle
	Area of a trapezium
	Solve problems with perimeter and area
	Form expressions with perimeter and area (Extend)

Summer Topics

Speed, Distance and Time	Convert between milliseconds, seconds, minutes and hours
	Convert between hours, days and years
	Solve problems with tables and timetables
	Solve problems with time and the calendar
	Calculate speed
	Calculate time and distance
	Solve problems with speed, distance and time
	Interpret distance-time graphs
	Draw distance-time graphs
	Calculate speed from distance-time graphs (extend)
Properties of Number	Multiples
	Factors
	Prime Numbers
	Write numbers as a product of prime factors
	Square, cube and triangular numbers
	Square roots and cube roots
	Express higher powers and roots (Extend)
	Highest Common Factor (HCF)
	Lowest common multiple (LCM)
	HCF and LCM from Venn diagrams (Extend)
	Use factors to simplify calculations (Extend)
Add and Subtract Fractions	Simplify a fraction
	Convert between mixed numbers and improper fractions
	Add and subtract fractions with the same denominator
	Add and subtract fractions and integers
	Add and subtract fractions where denominators share a simple common multiple
	Add and subtract fractions with any denominator
	Add and subtract improper fractions and mixed numbers

	Use equivalence to add and subtract decimals and fractions (Extend)
	Add and subtract simple algebraic fractions (Extend)
	Substitution and solving equations with fractions (Extend)
Angles and Polygons	Draw and measure lines and angles
	Understand and use geometric notation
	Angles around a point
	Angles on a straight line
	Vertically opposite angles
	Recognise and name polygons
	Angles in a triangle
	Angles in a quadrilateral
	Solve problems with angles
	Parallel and perpendicular lines
	Angles in parallel lines (Extend)
	Angles in polygons (Extend)
	Simple proofs (Extend)