

## Beckmead School Mathematics Curriculum Map Autumn Term 2016

### **Year 7 Maths Course Content**

#### **Autumn Term:**

Whole numbers and decimals (place value, multiplying and dividing by 10, 100 and 1000, calculating with negative numbers, mental and written calculations); Measures, perimeter and area (units of measure, converting between metric units of measure, perimeter and area of rectangle, triangle, parallelogram and trapezium, volume of a cube); Expressions and formulae (using letters and symbols, substituting, collecting like terms, expanding brackets); Fractions, decimals and percentages (equivalent fractions, addition and subtraction of fractions, decimals and fractions, fractions of quantity, percentages of amount); Angles and 2D shapes (angle measure, drawing lines and angles, calculating angles, properties of triangles, properties of quadrilaterals, properties of polygons); Graphs (coordinates, tables of value, plotting straight-line graphs, real-life graphs).

### **Year 8 Maths Course Content**

#### **Autumn Term:**

Whole numbers and decimals (factors and multiples and primes, LCM and HCF, square and cube roots, indices, rounding, estimation); Measures, perimeter and area (metric and imperial measures, perimeter and area of rectangle and triangle, area of parallelogram and trapezium); Expressions and formulae (simplifying and substitution, indices, like terms, expanding brackets, substitution into formulae, writing formula); Fractions, decimals and percentages (ordering decimals, fractions and decimals, adding and subtracting fractions, fractions of quantity, percentages of amounts, converting between fractions, decimals and percentages); Angles and shapes (angles, properties of triangle, angles in parallel lines, properties of a quadrilateral, properties of a polygon, congruent shapes); Graphs (drawing straight - line graphs, equation of straight line graph, time series graphs)

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### **Year 9 Maths Course Content**

#### **Autumn Term:**

Whole numbers and decimals (powers of 10, rounding, factors, multiples and primes, estimating and approximating); Measures, perimeter and area (measures, area of 2D shapes, circumference of a circle, area of a circle, compound measures); Expressions and formulae (factors in algebra, algebraic fractions, formulae in context, rearranging formulae, deriving and graphing formulae); Fractions, decimals and percentages (adding and subtracting fractions, multiplying fractions, dividing by fractions, decimals and fractions, percentage change, percentage problems, repeated percentage change); Angles (angle properties of a triangle, angle properties of a quadrilateral, angle properties of a polygon, congruent shapes); Graphs (tables of values, drawing straight-line graphs, gradient of a straight-line graph, y-intercept of a straight -line graph,  $y=mx+c$  equation, equations given implicitly, real-life graphs, distance-time graphs, time series.