

## Year 7 Progress Tracker

To make expected progress you should have mastered all year 7 topics

Topic	Objectives
<b>Number - Place Value</b>	Use place value for decimals, measures and integers of any size.
	Order positive and negative integers. Use all symbols.
	Round numbers and measures to an appropriate degree of accuracy. Decimal places and significant figures.
<b>Number - Addition and Subtraction</b>	Use formal written methods for addition and subtraction of integers and decimals.
	Recognise and use relationships between addition and subtraction including inverse operations.
	Calculate and solve problems involving perimeter.
<b>Number - Multiplication &amp; Division</b>	Multiply and divide by 10, 100, 1000. Use formal methods for multiplication and division of integers and decimals.
	Understand the order of operations. (BIDMAS)
	Calculate and solve problems involving area of rectangles, triangles and parallelograms. Calculate the mean average.
	Understand prime numbers, factors, common factors and highest common factor. Find the prime factor decomposition of a number.
	Recognise powers 2,3,4,5. Use approximation through rounding to estimate answers.
<b>Fractions 1</b>	Identify and use equivalent fractions. Compare and order fractions using all inequality symbols. Simplify fractions.
	Express one quantity as a fraction of another. Represent fractions using diagrams and on a number line. Find a fraction of an amount.
<b>Christmas</b>	
<b>Fractions 1</b>	Convert between fractions and decimals.
	Convert between mixed numbers and improper fractions.
	Add and subtract any fraction with any denominator.
	Add and subtract any fraction including mixed and improper.
<b>Statistics 1</b>	Understand the data cycle and the different types of data. Calculate median, mode and range from data set.
	Collect, organise, draw and interpret - tally chart, two way table, bar chart, pictogram and line graph.
<b>Negative Numbers</b>	Add and subtract negative numbers.
	Multiply and divide negative numbers.
<b>Easter</b>	
<b>Algebra 1</b>	Understand that a letter represents a variable, understand the difference between an expression, equation and formula. Form expressions from worded questions.
	Substitute values into formulae and expressions, including scientific formulae and negatives.
	Simplify and collect like terms.
	Solve one sided equations.
	Generate term to term sequences and find the nth term.
<b>Geometry - Lines &amp; Angles</b>	Describe and draw points, lines, parallel lines, perpendicular lines, right angles. Use a protractor to measure angles. Apply the properties of angles at a point, on a straight line and vertically opposite.
	Calculate and illustrate properties of triangles, quadrilaterals and circles. Calculate and use sums of angles in a triangle and quadrilateral to solve problems.
	Describe and draw regular polygons and other polygons that are rotationally and reflectively symmetrical.
	Calculate the sum of angles in a polygon.
	Understand and use alternate and corresponding angles on parallel lines.
<b>Summer</b>	

## Year 8 Progress Tracker

To make expected progress you should have mastered all year 8 topics

Topic	Objectives
<b>Fractions 2</b>	Find a fraction of an amount. Find the whole amount given a fraction of the amount. Find a fractional increase and decrease.
	Multiply and divide fractions both positive and negative.
	Multiply and divide improper and mixed numbers both positive and negative.
<b>Number - Percentages</b>	Interpret percentages as a fraction or decimal. Interpret diagrams as percentages and vice versa.
	Express one quantity as a percentage of another. Compare two quantities using percentages and work with percentages greater than 100%.
	Calculate percentage change, percentage of amount, increase and decrease - with and without a calculator.
	Calculate original value problems and calculate simple interest in financial maths.
<b>Algebra 2</b>	Substitute numerical values into formulae and expressions, including scientific formulae. Include all prior learning (fractions, decimals and negatives).
	Simplify expressions involving Indices laws. Simplify expressions involving products and powers. Apply to perimeter of 2D shapes.
<b>Christmas</b>	
<b>Algebra 2</b>	Expand a single bracket. Expand two single brackets and simplify. Apply to area of 2D shapes.
	Factorise a single bracket.
	Solve linear equations including those with brackets and fractions.
	Rearrange where the subject appears once. Solve linear equations where rearranging is needed.
	Represent inequalities on a number line and vice versa. Find integer solutions of an inequality. Solve linear inequalities.
<b>Geometry - Circles and Area</b>	Convert between $cm^2$ and $m^2$ .
	Calculate and solve problems involving perimeter of 2D shapes including circles.
	Derive and apply formulae to calculate and solve problems involving area of circles, composite shapes and trapeziums.
<b>Easter</b>	
<b>Ratio</b>	Simplify ratios.
	Divide a given ratio into two or more parts. Given information about one part, find the other parts or whole.
	Change freely between standard units. E.g. time, length, area, volume.
	Use compound units such as speed, unit pricing and density to solve problems. Solve problems involving recipes, best buys and exchange rates.
<b>Statistics 2</b>	Draw and interpret pie charts.
	Calculate mean, mode, median and range from a non grouped table.
<b>Geometry - 3D Shapes</b>	Count the faces, edges and vertices to solve problems involving 3D shapes. Construct and interpret plans and elevations of 3D shapes.
	Convert between $cm^3$ and $m^3$ . Know and use the fact 1 litre = $1000cm^3$ .
	Calculate the volume and surface area of cubes, cuboids, triangular prisms and a cylinder.
<b>Summer</b>	