



Mathematics – Y8 Assessment Descriptors

	Foundation	Developing	Securing	Exceeding	Excelling
Year 8 Summer term 1	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Gather like terms in expression with a single variable. Solve simple balance problems. Solve one step equations. Recognise and classify angles in triangles and other shapes. Measure and draw lengths and angles accurately. Find areas by counting and perimeters by measuring. Identify parallel and perpendicular lines. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Use formulae given in words. Expand single brackets - multiplied by a positive constant. Solve 2 step equations. Gather like terms with 2 or more variables. Understand the properties of triangles & quadrilaterals. Understand congruence. Use area formulae for rectangles. Find their perimeters. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Solve equations with unknowns on both sides (no negatives) and brackets. Write simple expressions from information given in words. Form and solve simple equations from information given in diagrams or words. Expand brackets with multipliers which are variables. Construct ASA, SAS and SSS triangles using a protractor, ruler and a pair of compasses. Calculate the areas of triangles and parallelograms. Use compasses to construct perpendicular bisectors. Find the area and perimeter of compound shapes (made of rectangles). 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Solve equations with unknowns on both sides including brackets, negative terms and divisions. Solve linear inequalities. Form and solve more complex equations from information given in diagrams or words. Simplify complex expressions with more than one bracket and negative terms & multipliers. Find the areas of trapezia using the formulae ignoring redundant information. Calculate the area and circumference of a circle using pi. Find the area/perimeter of more difficult compound shapes incl missing lengths. Construct angle bisectors. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Expand and simplify double brackets of any complexity. Form & solve complex equations including brackets, divisions or more than 1 variable. Use Pythagoras theorem - Shapes may need to be split into right angled triangles. Find the areas of sectors and the lengths of arcs.

Year 8 Summer term 2

	Foundation	Developing	Securing	Exceeding	Excelling
	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> • Round to the nearest 1, 10 or 100. Multiply and divide whole numbers by 10, 100, 1000. • Plot & identify co-ordinates in the first quadrant. Read values from linear conversion graphs, answering questions in context. • Understand the language of probability - impossible, certain, likely. Write simple probabilities as fractions. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> • Multiply and divide non integers by 10, 100, 1000. Multiply and divide decimals by whole numbers. • Substitute into simple equations of straight lines given explicitly or implicitly. Plot & identify co-ordinates in all 4 quadrants. Interpret simple graphs which show rates of change in familiar contexts. Plot graphs of simple linear functions, in the form $y=mx+c$, in 1st quadrant. • Order events on a probability scale. Find the probability when an event has equally likely outcomes. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> • Convert metric units of measure. Multiply and divide by 0.1, 0.01 or 0.001. Round numbers to a given number of decimal places & to one significant figure. • Identify the equations of horizontal and vertical lines. Draw the lines given the equations. Draw and interpret graphs of linear functions from contexts given in words. • List outcomes systematically. Find the probability of outcomes from a single event. Know that probabilities sum to 1. Create & use sample space diagrams. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> • Estimate calculations using figures rounded to one significant figure. Round to 2 or more significant figures. Confidently multiply or divide by numbers between 0 and 1. Understand that numbers which have been rounded could originally have had a range of values (bounds). • Plot linear functions, given algebraic equation (implicit or explicit). Interpret distance/time graphs. Interpret speed/time graphs - and those of other rates of change. Use $y = mx + c$ to draw and identify linear functions. • Use theoretical or experimental probability to predict. Use tree diagrams to find the probability of an outcome from 2 or more events. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> • Use standard form to write large and small numbers. Multiply and divide numbers in standard form (no calculator). Understand place value of numbers in standard form and round appropriately. • Identify parallel lines from their equations. Find the equation of a line given 2 points or a point and a parallel line. • Combine probabilities of outcomes from tree diagrams to solve problems. Use tree diagrams to find the probability of an outcome from 2 or more events without replacement.