



Mathematics – Y8 Assessment Descriptors

	Foundation	Developing	Securing	Exceeding	Excelling
Year 8 Spring term	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Quantify parts of a whole using fractions. Compare the size of simple fractions using pictures. Calculate simple percentages e.g. 50% etc. Know equivalence of simple fractions, decimals and percentages. Find next terms in simple linear sequences. Draw the next term in a sequence given as a simple geometric pattern. Find pairs of factors. List multiples. Identify lines of reflection symmetry and rotation symmetry in basic 2D shapes. Plot and identify co-ordinates in the first quadrant. Reflect basic shapes in horizontal and vertical lines. Compare distributions, given simple frequency diagrams. Calculate the mode and median from simple data sets. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Add and subtract fractions with the same denominator. Order/compare simple fractions, decimals and percentages. Find equivalent fractions (given in numbers). Express fractions in their simplest form. Understand and use the notation for squares, square root and cubes. Find missing terms in linear sequences. Know and use prime numbers. Generate sequences from geometrical patterns. Translate shapes and identify translations. Enlarge shapes without a centre. Plot and identify co-ordinates in all quadrants. Rotate shapes through 90, 180, 270 degrees about a centre. Reflect shapes in diagonal lines. Calculate the mean for simple data sets. Select possible small data sets given the median, mode and/or range. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Calculate a percentage of an amount & a fraction of an amount. Add and subtract fractions changing one denominator. Convert between fractions, decimals and percentages. Compare using fractions. Generate terms of a linear sequence. Find the LCM and HCF of small numbers. Find the formula for sequences generated from simple geometrical patterns. Perform basic single transformations on a Cartesian grid. Identify which transformation has taken place. Describe single transformations fully using appropriate mathematical language. Select possible small data sets given the mean, median, mode and/or range or a combination of these. Compare distributions using averages and range. Read data from two way tables. Construct box and whisker plots. Construct & interpret pie charts. Given the mean, find the total of the data. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Use multipliers to calculate percentage increases. Express an amount as a percentage. Add and subtract fractions changing both denominators. Calculate successive percentage changes. Use multipliers to calculate percentage decreases. Use f, d, p to solve multi-step problems. Use prime factors to find HCFs and LCM's. Find general rules for ascending linear sequences. Use indices rules (positive indices). Find LCM and HCF in context. Calculate and apply scale factors. Enlarge shapes from a centre and with a positive (including fractional) scale factor on a Cartesian grid. Compare distributions (from averages and measures of spread or box and whisker plots) writing in detail and in context. Calculate the mean from discrete data given in a frequency table. Estimate the mean from grouped frequency tables. 	<p>Confidently and independently be able to...</p> <ul style="list-style-type: none"> Add, subtract, multiply and divide mixed numbers and improper fractions. Calculate compound interest. Calculate reverse percentages. Change recurring decimals to fractions. Given an nth term rule, generate terms in quadratic sequences. Find general rules for descending linear & quadratic sequences. Use prime numbers to solve problems. Enlarge shapes from a centre and with a negative scale factor on a Cartesian grid. Find lengths using scale factors on similar shapes. Understand scale factor in relation to area factor and vice versa. Work backwards to solve more complex problems when given the mean. Solve complex problems involving averages and measures of spread.