

Year 9 Mathematics Assessment Grid

Year 9	Number	Algebra	Ratio, proportion and rates of change	Geometry and Measures	Probability	Statistics
Y9.9	As well as Y9.8... I understand what negative powers less than -1 mean and can evaluate integers to negative powers.	As well as Y9.8... I can rearrange equations to compare the gradients. I can solve more complicated quadratic equations graphically.	As well as Y9.8... I can make links between scale factors and similarity of shapes.	As well as Y9.8... I can solve problems involving congruent triangles. I can give my answers in terms of π and understand why this is beneficial.	As well as Y9.8... I can use Venn Diagrams to work out probabilities.	As well as Y9.8... I can work out averages and range, choosing the best representative to make comparisons about the consistency and average of the data.
Y9.8	As well as Y9.7... I understand what the numbers to the power of -1 and 0 are. I understand what an identity is and can mathematically prove them.	As well as Y9.7... I can solve simple quadratic equations graphically. I can simplify algebraic expressions involving powers. I know the relationship between the gradients of perpendicular lines.	As well as Y9.7... I can understand and deduce the units of measure from complex density and speed calculations.	As well as Y9.7... I can solve problems involving trigonometry and Pythagoras' Theorem. I know the conditions for congruent triangles. I can prove that two triangles are congruent. I can find the area of sectors and the length of arcs. I can solve loci problems in a real life context. I can enlarge a shape by a fractional scale factor. I can enlarge a shape by a negative scale factor.	As well as Y9.7... I can use set notation to draw Venn Diagrams.	As well as Y9.7... I can compare distributions using the median and inter-quartile range.
Y9.7	As well as Y9.6... I can calculate using numbers in standard form. I can identify upper and lower bounds for a calculation. I can multiply and divide fractions. I can work out the result of repeated percentage change. I can work out a percentage change. I can work out reverse percentages. I can multiply and divide	As well as Y9.6... I can factorise quadratic expressions. I can rearrange formulae involving square and square roots. I know that parallel lines have the same gradient. I can solve linear simultaneous equations algebraically, including when they have negative or decimal solutions.	As well as Y9.6... I can solve more complex speed, distance time problems and density, mass, volume problems.	As well as Y9.6... I can use trigonometry to find missing angles and sides in triangles. I can identify similar triangles. I can use similarity to work out missing lengths in similar shapes.	As well as Y9.6... I understand the language of sets.	As well as Y9.6... I understand the danger of extrapolation. I can draw a cumulative frequency diagram and calculate averages from it. I can draw box and whisker diagrams. I can estimate the mean from grouped data.

	with indices. I can solve quadratic equations by factorising.					
Y9.6	As well as Y9.5... I can round to a given number of significant figures. I can work out a percentage increase/decrease. I can multiply and divide fractions.	As well as Y9.5... I can use algebra to identify if a number is in a sequence. I can continue a quadratic sequence given a rule. I can expand double brackets. I can rearrange simple formulae. I can sketch graphs given the gradient and y-intercept. I can solve simultaneous equations graphically.	As well as Y9.5... I can solve basic speed, distance time problems and density, mass, volume problems.	As well as Y9.5... I can calculate sides in triangles using Pythagoras' Theorem. I can find the area of triangles, parallelograms, trapezia, circle and compound shapes. I understand locus and how to draw loci. I understand what it means for two shapes to be similar. I can work out the volume of prisms.	As well as Y9.5... I can calculate relative frequency and understand the effect on increasing the number of trials.	As well as Y9.5... I can work out the mean from frequency tables.
Y9.5	As well as Y9.4... I can write a number as a product of its prime factors. I can add and subtract fractions.	As well as Y9.4... I can find the nth term of a sequence I can plot the graph of quadratic equations. I can factorise expressions into a single bracket. I understand what $y=mx+c$ represents. I can solve equations involving brackets.	As well as Y9.4... I can use the unitary method to deduce the best value for money.	As well as Y9.4... I can work out interior and exterior angles of polygons. I can solve problems involving angles in parallel lines. I can construct perpendicular bisectors and angle bisectors. I can perform transformations on shapes.	As well as Y9.4... I can calculate experimental probability.	As well as Y9.4... I can draw a scatter diagram. I understand different types of correlation. I can use a line of best fit. I can group data into frequency tables.
Y9.4	I can identify factors of numbers. I know what a prime number is.	I can expand single brackets. I can substitute into expressions and formulae.	I can solve basic problems involving proportion. I can read map scales. I can draw to scale.	I can use angle facts to solve different problems. I know the properties of quadrilaterals.	I can use the probability scale and can find the probability of events happening or not.	I can calculate and use the mean of a set of data I can compare distributions using average and range.