KS3 Progress Grid Year 9

	Greater than expected progress.		Expected progress		Less than expected progress	
	Students will be able to know / understand / do:		Students will be able to know / understand / do:		Students will be able to know / understand / do:	
	Mid-year	End of year	Mid-year	End of year	Mid-year	End of Year
Extended learner	Add and subtract numbers in standard form. Complete the square to express a quadratic expression in the form $(x+q)^2+p$. Use Pythagroas in the x-y plane. Find the nth term of a quadratic sequence.	Form and solve equations involving probability. Calculate the surface area of compound shapes. Estimate averages from grouped data by interpolation.	Find upper and lower bounds and write error intervals. Calculate with negative and fractional indices. Multiply and divide with standard form. Find the HCF and LCM of 3 numbers. Form and solve equations from angles in polygons. Solve more complex problems involving angles in parallel lines. Substitute into formulae involving indices. Expand triple brackets. Factorise quadratics where the coefficient of x2 is greater than 1. . Generate a quadratic sequence from the nth term.	Calculate an expected frequency given probability and number of trials. Calculate arc lengths and sector areas, including leaving answers in terms of pi. Calculate the volumes of compound shapes. Calculate averages from bar charts. Find the mean and median from an ungrouped frequency table Interpret a pie chart to find frequencies given total.	Round to a given number of significant figures or decimal places. Know and use the laws of indices. Convert between standard form and ordinary numbers. Write a number as a product of prime factors and find HCF/LCM using a Venn Diagram. Understand the angle properties of polygons. Know and apply angle facts for parallel lines. Substitute numbers into linear expressions. Expand and factorise single brackets and double brackets where the coefficient of x2 is 1. Use Pythagoras to find a missing length and to determine if a triangle is right angled. Find and use the nth term of a linear sequence.	Understand the probability scale and the theoretical probability of something happening using a fraction. Find the circumference and area of a circle. Identify common nets of 3D shapes and calculate the surface area. Find the volume of prisms. Draw plans and elevations of 3D shapes. Find the mode, median and mean of a set of numbers. Understand bar charts and stem and leaf diagrams.
Secure learner	Find upper and lower bounds and write error intervals. Calculate with negative and fractional indices. Multiply and divide with standard form. Find the HCF and LCM of 3 numbers. Form and solve equations from angles in polygons. Solve more complex problems involving angles in parallel lines. Substitute into formulae involving indices. Expand triple brackets. Factorise quadratics where the coefficient of x^2 is greater than 1. . Generate a quadratic sequence from the nth term.	Calculate an expected frequency given probability and number of trials. Calculate arc lengths and sector areas, including leaving answers in terms of pi. Calculate the volumes of compound shapes. Calculate averages from bar charts. Find the median from an ungrouped frequency table Interpret a pie chart to find frequencies given total.	Round to a given number of significant figures or decimal places. Know and use the laws of indices. Convert between standard form and ordinary numbers. Write a number as a product of prime factors and find HCF/LCM using a Venn Diagram. Understand the angle properties of polygons. Know and apply angle facts for parallel lines. Substitute numbers into linear expressions. Expand and factorise single brackets and double brackets where the coefficient of x^2 is 1. Use Pythagoras to find a missing length and to determine if a triangle is right angled. Find and use the nth term of a linear sequence.	Understand the probability scale and the theoretical probability of something happening using a fraction. Find the circumference and area of a circle. Identify common nets of 3D shapes and calculate the surface area. Find the volume of prisms. Draw plans and elevations of 3D shapes. Find the mode, median and mean of a set of numbers. Understand bar charts and stem and leaf diagrams.	Order decimals. Round to the nearest 10 or 100. Recall square and cube numbers. Multiplu and divide by 10, 100 and 1000. Identify factors, multiples and primes. Find missing angles around a point and on a straight line. Identify parallel and perpendicular lines. Substitute integers into simple expressions. Expand a single bracket. Factorise a single term out of a bracket. Find the hypotenuse using Pythagoras. Recognise and continue patterns or sequences of numbers. Suggest a term-to-term rule for a sequence.	Describe the probability of an event and understand the probability scale from 0 to 1. List the possible outcomes for an experiment (sample space). Construct frequency tables, bar charts and pictograms. Name the parts of a circle. Recall the formulae for circumference and area. Name 3D shapes and identify vertices, edges and faces. Calculate the volume of a shape by counting cubes. Find the mode and median of a set of numbers
Emerging learner	Round to a given number of significant figures or decimal places. Know and use the laws of indices. Convert between standard form and ordinary numbers. Write a number as a product of prime factors and find HCF/LCM using a Venn Diagram. Understand the angle properties of polygons. Know and apply angle facts for parallel lines. Substitute numbers into linear expressions. Expand and factorise single brackets and double brackets where the coefficient of x2 is 1. Use Pythagoras to find a missing length and to determine if a triangle is right angled. Find and use the nth term of a linear sequence.	Understand the probability scale and the theoretical probability of something happening using a fraction. Find the circumference and area of a circle. Identify common nets of 3D shapes and calculate the surface area. Find the volume of prisms. Draw plans and elevations of 3D shapes. Find the mode, median and mean of a set of numbers. Understand bar charts and stem and leaf diagrams.	Order decimals. Round to the nearest 10 or 100. Recall square and cube numbers. Multiplu and divide by 10, 100 and 1000. Identify factors, multiples and primes. Find missing angles around a point and on a straight line. Identify parallel and perpendicular lines. Substitute integers into simple expressions. Expand a single bracket. Factorise a single term out of a bracket. Find the hypotenuse using Pythagoras. Recognise and continue patterns or sequences of numbers. Suggest a term-to-term rule for a sequence.	Describe the probability of an event and understand the probability scale from 0 to 1. List the possible outcomes for an experiment (sample space). Construct frequency tables, bar charts and pictograms. Name the parts of a circle. Recall the formulae for circumference and area. Name 3D shapes and identify vertices, edges and faces. Calculate the volume of a shape by counting cubes. Find the mode and median of a set of numbers	Order integers. Determine the value of a digit within a number. Recite the multiples of a number by counting on. Know the types of angle (right angle, acute, obtuse, reflex). Collect like terms (eg. 2 apples + 3 apples = 5 apples). Identify different types of triangle.	Find area and perimeter by counting squares. Continue simple sequences and sequences of pictures. Find the mode and range of a set of data.