

Year 7 Key Stage 3 Curriculum Progress Map: Maths

TERM 1										
TOPIC TITLES	PLACE VALUE	POWERS & ROOTS	INTEGERS, DECIMALS & NEGATIVES	FOUR OPERATIONS WITH FRACTIONS	FACTORS, MULTIPLES & PRIMES	SIMPLIFYING EXPRESSIONS & SUBSTITUTION	SOLVING AND REARRANGING EQUATIONS	GRAPHS & CHARTS 1	CONVERT BETWEEN PERCENTAGES, DECIMALS & FRACTIONS	
ASSESSMENT CRITERIA	STAGE 4 (GCSE 7-9)	<ul style="list-style-type: none"> I can manipulate place value involving division. I can manipulate place value involving multiplication. I can justify place value calculations. 	<ul style="list-style-type: none"> I can order complex numbers involving indices. I can evaluate fractional negative indices. I can manipulate indices 	<ul style="list-style-type: none"> I can solve problems involving long multiplication and division. I can calculate long division involving decimals. I can calculate long multiplication involving decimals. 	<ul style="list-style-type: none"> I can understand a worded problem involving mixed numbers. I can divide a mixed number fraction by an integer. I can multiply and divide mixed number fractions. 	<ul style="list-style-type: none"> I can understand worded problems involving lowest common multiples and ratio. I can understand lowest common multiple and highest common factor worded problems. 	<ul style="list-style-type: none"> I can substitute into complex formulae. I can substitute into expressions involving negatives and squares. I can expand a complex bracket. 	<ul style="list-style-type: none"> I can rearrange complex formulae. I can solve a fractional equation. 	<ul style="list-style-type: none"> I can compare boxplots. I can process data and draw a boxplot. I can interpret a cumulative frequency curve. 	<ul style="list-style-type: none"> I can convert a recurring decimal to a fraction. I can compare fractions and percentages of amounts. I can order fractions, decimals and percentages.
	STAGE 3 (GCSE 5-6)	<ul style="list-style-type: none"> I can compare indices. I can order decimal numbers. 	<ul style="list-style-type: none"> I understand fractional indices when the numerator is >1. I understand negative indices. 	<ul style="list-style-type: none"> I can calculate long multiplication. I can calculate long division. 	<ul style="list-style-type: none"> I can add and subtract mixed number fractions. I can add and subtract fractions with a different denominator. 	<ul style="list-style-type: none"> I understand prime factor decomposition. I can understand worded problems involving lowest common multiples. 	<ul style="list-style-type: none"> I can expand and simplify. I can expand a single bracket. 	<ul style="list-style-type: none"> I can solve a multi-step equation. I can solve an equation with unknowns on both sides. 	<ul style="list-style-type: none"> I can draw a cumulative frequency curve. I can complete a cumulative frequency table. 	<ul style="list-style-type: none"> I can compare fractions. I can compare fractions, decimals and percentages.
	STAGE 2 (GCSE 3-4)	<ul style="list-style-type: none"> I can subtract a power of 10. I can divide by powers of 10. 	<ul style="list-style-type: none"> I understand unit fractional indices. I can cube a number. 	<ul style="list-style-type: none"> I can subtract decimal numbers. I can subtract negative numbers. 	<ul style="list-style-type: none"> I can convert between mixed numbers and improper fractions. I can find a fraction of an amount. 	<ul style="list-style-type: none"> I can find the highest common factor between two or more numbers. I can find the lowest common multiple between two or more numbers. 	<ul style="list-style-type: none"> I can substitute into an equation or formula. I can collect like terms. 	<ul style="list-style-type: none"> I can solve an equation involving brackets. I can solve a two-step equation. 	<ul style="list-style-type: none"> I can draw a boxplot when given the 5 necessary values. I can calculate the median from a stem and leaf diagram. 	<ul style="list-style-type: none"> I can convert a fraction to a percentage. I can convert a decimal to a percentage.
	STAGE 1 (GCSE 1-2)	<ul style="list-style-type: none"> I can order integers. I can multiply by powers of 10. I can state the place value of a digit. 	<ul style="list-style-type: none"> I can square root a number. I can understand how indices work. I can square a number. 	<ul style="list-style-type: none"> I can perform long addition. I can multiply positive and negative integers. I can subtract. 	<ul style="list-style-type: none"> I can add and subtract fractions with the same denominator. I can simplify fractions. I can identify equivalent fractions. 	<ul style="list-style-type: none"> I can find factors of a number. I can find multiples of a number. I can identify prime numbers. 	<ul style="list-style-type: none"> I can simplify algebra using indices. I can multiply algebraic terms. I can use algebraic notation. 	<ul style="list-style-type: none"> I can rearrange a simple formula. I can use inverse functions. I can solve a one-step equation. 	<ul style="list-style-type: none"> I can construct a stem and leaf diagram. I can complete a pictogram. I can interpret a pictogram. 	<ul style="list-style-type: none"> I can convert a percentage to a decimal. I can convert a decimal to a fraction. I can shade a fraction of a shape.

TERM 2								
TOPIC TITLES	RATIO	PERCENTAGES	HISTOGRAMS, FREQUENCY POLYGONS, PIE CHARTS & BAR CHARTS	PROBABILITY	EXPANDING & FACTORISING	ROUNDING & ESTIMATION	ANGLE PROPERTIES	
ASSESSMENT CRITERIA	STAGE 4 (GCSE 7-9)	<ul style="list-style-type: none"> I can solve problems by combining three ratios. I can combine two ratios. I understand sharing ratio problems. 	<ul style="list-style-type: none"> I can solve a reverse compound interest problem. I can find a value using reverse percentage. I can calculate a percentage change. 	<ul style="list-style-type: none"> I can complete incomplete histograms and frequency tables. I can calculate frequency density and draw a histogram. 	<ul style="list-style-type: none"> I can calculate conditional probability. I can interpret probability diagrams. I can calculate probability from a tree diagram. 	<ul style="list-style-type: none"> I can factorise quadratics (ie $6x^2$). I can expand triple brackets. I can factorise complex quadratics. 	<ul style="list-style-type: none"> I can estimate answers to complex worded problems. I can estimate answers to worded problems. I can estimate calculations by rounding. 	<ul style="list-style-type: none"> I can form and solve equations using angle properties. I can solve multi-step angle problems.
	STAGE 3 (GCSE 5-6)	<ul style="list-style-type: none"> I can solve ratio problems. I can explain a fraction from a ratio. 	<ul style="list-style-type: none"> I can calculate compound interest. I can calculate simple interest. 	<ul style="list-style-type: none"> I can interpret a pie chart. I can draw a pie chart. I can calculate the angles in a pie chart. 	<ul style="list-style-type: none"> I can complete the branches of a tree diagram. I can calculate expected outcomes from relative frequency. 	<ul style="list-style-type: none"> I can factorise simple quadratics. I can expand and simplify more complicated brackets. 	<ul style="list-style-type: none"> I can round a small number to 2 significant figures. I can round to 3 significant figures. 	<ul style="list-style-type: none"> I can find angles in special triangles. I can find angles in a quadrilateral.
	STAGE 2 (GCSE 3-4)	<ul style="list-style-type: none"> I can write a fraction from a ratio. I can share into a ratio. 	<ul style="list-style-type: none"> I can find a percentage of an amount. I can calculate a simple percentage increase. 	<ul style="list-style-type: none"> I can draw a frequency polygon. I can interpret a dual bar chart. 	<ul style="list-style-type: none"> I can complete a frequency table. I can calculate probability from a sample space diagram. 	<ul style="list-style-type: none"> I can expand and simplify two brackets. I can factorise complex linear expressions. 	<ul style="list-style-type: none"> I can round to 1 significant figure. I can estimate from a number line. 	<ul style="list-style-type: none"> I can calculate angles around a point. I can calculate angles on a straight line. I can calculate angles in a triangle
	STAGE 1 (GCSE 1-2)	<ul style="list-style-type: none"> I can find equivalent ratios. I can simplify ratios. I can use ratio notation. 	<ul style="list-style-type: none"> I can find a simple percentage of an amount. I can identify the percentage of a shape that is shaded. I use place value when writing small numbers. 	<ul style="list-style-type: none"> I can draw a bar chart. I can complete a tally chart. I can interpret a bar chart. 	<ul style="list-style-type: none"> I can complete a sample space diagram. I can put probabilities on a number line. I can write simple probabilities. 	<ul style="list-style-type: none"> I can factorise linear expressions. I can expand and simplify single brackets. 	<ul style="list-style-type: none"> I can round to 1 decimal place. I can read off a number line. I can round to the nearest 10. 	<ul style="list-style-type: none"> I can identify different types of angles. I can label different types of angles.

TERM 3							
TOPIC TITLES	UNIT CONVERSION	AREA & PERIMETER	BOXPLOTS, CUMULATIVE FREQUENCY, STEM & LEAF AND PICTOGRAMS	SEQUENCES	Y = MX + C	SCATTER GRAPHS	
ASSESSMENT CRITERIA	STAGE 4 (GCSE 7-9)	<ul style="list-style-type: none"> I can convert area units with a map scale. I can convert square and cubic metric units without a diagram. I can convert square and cubic metric units with a diagram. 	<ul style="list-style-type: none"> I can find the area of a sector. I can calculate the diameter from the area of a circle. 	<ul style="list-style-type: none"> I can compare boxplots. I can process data and draw a boxplot. I can interpret a cumulative frequency curve. 	<ul style="list-style-type: none"> I can find the nth term of quadratic sequence. I can find the nth term of a linear fractional sequence. I can generate a quadratics sequence from the nth term. 	<ul style="list-style-type: none"> I can find the equation of a perpendicular line. I can prove 2 lines are parallel. I can write the equation of a parallel line. 	<ul style="list-style-type: none"> I can find the equation of the line of best fit. I can explain extrapolation. I can identify outliers and their cause.
	STAGE 3 (GCSE 5-6)	<ul style="list-style-type: none"> I can convert between litres and cm^3. I can convert between kilograms and grams. I can convert between litres and millilitres. 	<ul style="list-style-type: none"> I can calculate the area of a circle. I can calculate the circumference of a circle. 	<ul style="list-style-type: none"> I can draw a cumulative frequency curve. I can complete a cumulative frequency table. 	<ul style="list-style-type: none"> I can find the nth term from a visual linear pattern. I can generate a linear sequence from the nth term. 	<ul style="list-style-type: none"> I can write the equation of a line from a graph. I can calculate the gradient of a line. 	<ul style="list-style-type: none"> I can use a line of best fit to estimate. I can describe correlation in words.
	STAGE 2 (GCSE 3-4)	<ul style="list-style-type: none"> I convert between centimetres and millimetres. I can estimate the units for the mass of an object. 	<ul style="list-style-type: none"> I can calculate the area of a compound shape. I can calculate the area of a triangle. I can work out the length of a shape from the area. 	<ul style="list-style-type: none"> I can draw a boxplot when given the 5 necessary values. I can calculate the median from a stem and leaf diagram. 	<ul style="list-style-type: none"> I can find the nth term of a linear sequence. I can find the next term in a special sequence. I can find the number in a linear pattern using the nth term. 	<ul style="list-style-type: none"> I can identify the gradient and y-intercept from an equation. I can generate co-ordinates and plot graphs. 	<ul style="list-style-type: none"> I can draw a line of best fit. I can identify correlation.
	STAGE 1 (GCSE 1-2)	<ul style="list-style-type: none"> I can estimate the distance between two points. I can identify the unit for mass. 	<ul style="list-style-type: none"> I can calculate the area of a rectangle. I can calculate the perimeter of a rectangle. I can find the perimeter of shape by counting squares. 	<ul style="list-style-type: none"> I can construct a stem and leaf diagram. I can complete a pictogram. I can interpret a pictogram. 	<ul style="list-style-type: none"> I can draw the next pattern in a visual linear sequence. I can find the next number in a linear sequence. 	<ul style="list-style-type: none"> I can plot linear graphs. I can complete a mapping diagram. I can substitute into an equation. 	<ul style="list-style-type: none"> I can identify a linear relationship. I can read data from a scatter graph. I can plot data from a table.