



Robert Bloomfield Academy: Key Stage 3 Grade Descriptors – Mathematics



	Number	Algebra	Geometry & Measures	Data & Probability
Year 9 Expectation	<ul style="list-style-type: none"> Calculate combinations of indices and brackets, including square brackets. Use index laws to simplify expressions. Calculate combinations of powers, roots, fractions and brackets. Estimate answers to calculations. Understand numbers written in index form that are raised to a power. Understand negative and zero indices. Use powers of 10 and their prefixes. Write large and small numbers using standard form. Enter and read standard form numbers on a calculator. Order numbers written in standard form. Find an original value using inverse operations. Calculate percentage change. Solve best-buy problems. Solve problems involving inverse proportion. Find the lower and upper bounds for a measurement. Calculate percentage error intervals. <p>Application in Context</p> <ul style="list-style-type: none"> Solve problems and carry through substantial tasks by breaking them into smaller, more manageable tasks, using a range of efficient techniques, methods and resources, including ICT; give solutions to an appropriate degree of accuracy Interpret, discuss and synthesise information presented in a variety of mathematical forms Present a concise, reasoned argument, using symbols, diagrams, graphs and related explanatory texts Use logical argument to establish the truth of a statement 	<ul style="list-style-type: none"> Write and solve equations with fractions. Write and solve equations with the unknown on both sides. Use the priority of operations when substituting into algebraic expressions. Substitute values into expressions involving powers and roots. Write and use formulae. Substitute into formulae and then solve equations to find unknown values. Change the subject of a formula. Use the rules for indices for multiplying and dividing. Simplify expressions involving brackets. Factorise an expression by taking out an algebraic common factor. Multiply out double brackets and collect like terms. Draw a graph from its equation, without working out points. Write the equation of a line parallel to another line. Compare graph lines using their equations. Draw graphs with equations like $ax + by = c$. Rearrange equations of graphs into $y = mx + c$. Solve problems using simultaneous equations. Draw graphs with quadratic equations in the form $y = x^2$. Interpret graphs of quadratic functions. Draw and interpret graphs showing inverse proportion. Draw and interpret non-linear graphs. 	<ul style="list-style-type: none"> Enlarge 2D shapes using a positive, negative and fractional scale factors and centre of enlargement. Find the centre of enlargement by drawing lines on a grid. Understand that the scale factor is the ratio of corresponding lengths. Solve problems using compound measures. Solve problems using constant rates and related formulae. Use scales on maps and diagrams. Draw diagrams to scale. Make accurate constructions using drawing equipment. Construct accurate triangles and nets of solids involving triangles. Construct and draw accurate scale diagrams. Use scale diagrams to solve problems. Use the nth term to generate an arithmetic sequence. Find and use the nth term of an arithmetic sequence. Recognise and continue geometric and quadratic sequences. Represent inequalities on a number line. Find integer values that satisfy an inequality. Construct and solve equations including fractions or powers. Write formulae connecting variables in direct or inverse proportion. Use algebra to solve problems involving direct or inverse proportion. Calculate the circumference and area of a circle. Estimate calculations involving pi (π). Solve problems involving the circumference and area of a circle. Find the length of an unknown side of a right-angled triangle. Solve problems involving right-angled triangles. Calculate the volume and surface area of a right prism. Calculate the volume and surface area of a cylinder. Convert between m^3, cm^3 and mm^3. Use congruent shapes to solve problems about triangles and other polygons. Work out whether shapes are similar, congruent or neither. Solve problems involving similar triangles. Work out the sine, cosine and tangent ratio of any angle. Use the sine, cosine and tangent ratio to work out an unknown side of a right-angled triangle. Use the trigonometric ratios to work out an unknown angle in a right-angled triangle. 	<ul style="list-style-type: none"> Identify sources of primary and secondary data. Choose a suitable sample size and what data to collect. Identify factors that may affect data collection and plan to reduce bias. Design and use data collection sheets and tables. Design a good questionnaire. Find the median from a frequency table. Estimate the mean from a large set of grouped data. Construct and use a line of best fit to estimate missing values. Identify and suggest reasons for outliers in data. Draw line graphs to represent grouped data. Draw back-to-back stem and leaf diagrams. Identify mutually exclusive outcomes and events. Work out the probabilities of mutually exclusive outcomes and events. Calculate estimates of probability from experiments. List all the possible outcomes of one or two events in a sample space diagram. Show all the possible outcomes of two events in a two-way table. Calculate probabilities from two-way tables. Draw Venn diagrams. Calculate probabilities from Venn diagrams.



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Year 8 Expectation	<ul style="list-style-type: none"> Use written methods to add & subtract numbers, including decimals Estimate answers to calculations Know and use divisibility rules. Use a written method to divide decimal numbers by integers. Add, subtract, multiply and divide positive and negative numbers, including larger numbers and decimals. Calculate using combinations of squares, square roots, cubes, cube roots and brackets. Use a calculator to check answers. Know and use the priority of operations, including brackets and powers Use index notation. Write a number as a product of its prime factors. Use prime factor decomposition to find the HCF and LCM. Round decimals to two or three decimal places, to a given number of significant figures or to an appropriate degree of accuracy. Order decimals of any size, including positive and negative decimals. Multiply larger numbers. Multiply decimals with up to and including two decimal places. Multiply and divide any number by 0.1 and 0.01. Multiply and divide by decimals. Solve problems involving decimals and all four operations. Divide a quantity into three or more parts in a given ratio. Solve ratio and proportion problems involving decimals. Order, add and subtract fractions with any size denominator. Multiply and divide integers and fractions by a fraction. Find the reciprocal of a number. Write a mixed number as an improper fraction. Use the four operations with mixed numbers. Recall equivalent fractions and decimals. Recognise recurring and terminating decimals. Order fractions by converting them to decimals or equivalent fractions. Express one number as a percentage of another when the units are different. Use a multiplier to calculate amounts increased or decreased by a percentage. Use the unitary method to solve percentage problems. 	<ul style="list-style-type: none"> Understand and simplify algebraic powers. Write and use expressions involving powers. Expand brackets. Write and simplify algebraic expressions and formulae using brackets and division. To substitute positive and negative values into algebraic expressions Understand, find and use the nth term of a linear sequence Factorise expressions. Find the inverse of a simple function. Write and solve two-step equations using function machines. Solve problems using equations. Solve equations using the balancing method, including unknowns on both sides Use and interpret conversion graphs. Plot conversion graphs from a table of data. Interpret distance-time graphs Plot distance-time graphs from descriptive text. Draw and use graphs to solve distance-time problems. Plot line graphs from tables of data. Interpret line graphs. Draw and interpret line graphs and identify trends. Draw and interpret non-linear graphs from a range of sources. Recognise when values are in direct proportion with or without a graph. Plot graphs and reading values to solve problems. Plot a straight-line graph and work out its gradient. Plot the graphs of linear functions. Write the equations of straight-line graphs in the form $y = mx + c$. 	<ul style="list-style-type: none"> Derive and use the formula for the area of a triangle, parallelogram and trapezium. Calculate the area of compound shapes made from rectangles and triangles. Calculate the circumference and area of a circle Calculate the volume of cubes, cuboids and 3D solids made from cuboids. Calculate the volume of right prisms Solve volume problems. Sketch nets of 3D solids. Draw 3D solids on isometric paper. Draw plans and elevations of 3D solids. Calculate the surface area of cubes and cuboids. Solve problems in everyday contexts involving measures. Convert between different measures for area, volume and capacity. Use tonnes and hectares. Know rough metric equivalents of imperial measures. Classify quadrilaterals by their geometric properties. Solve geometric problems using side and angle properties of special quadrilaterals. Identify alternate angles on a diagram Understand proofs of angle facts. Identify corresponding angles. Solve problems using properties of angles in parallel and intersecting lines. Calculate the sum of the interior and exterior angles of a polygon. Work out the sizes of interior and exterior angles of a polygon. Solve geometrical problems showing reasoning. Solve problems involving angles by setting up equations. 	<ul style="list-style-type: none"> Interpret pie charts. Calculate angles and draw pie charts. Use two-way tables. Calculate the mean from a frequency table. Use tables for grouped data, find modal class and estimate range. Draw and interpret stem and leaf diagrams with different stem values. Find mode, median and range from stem and leaf diagrams. Compare two sets of data using averages and range. Compare two sets of data using the shape of a line graph or pie charts. Draw line graphs to compare two sets of data. Choose the most appropriate average to use. Draw scatter graphs, a line of best fit and describe types of correlation. Interpret graphs and charts. Explain why a graph or chart could be misleading. <p>Application in Context</p> <ul style="list-style-type: none"> Identify and obtain necessary information to carry through a task and solve mathematical problems Check results, considering whether these are reasonable Solve word problems and investigations from a range of contexts Show understanding of situations by describing them mathematically using symbols, words and diagrams Draw simple conclusions and give an explanation of their reasoning.



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	Number	Algebra	Geometry & Measures	Data & Probability
Year 7 Expectation	<ul style="list-style-type: none"> Recall and use multiplication facts up to 10×10 Multiply by multiples of 10, 100, 1000. Round whole numbers to the nearest 10000, 100000, 1000000. Add, subtract, multiply & divide whole numbers using written methods Use estimation and inverse operations to check answers. Know and use the priority of operations, including brackets & powers. Interpret a calculator display in different contexts. Solve problems involving money and time using a calculator. Order positive and negative numbers. Add, subtract and begin to multiply positive and negative numbers. Find all the factor pairs for any whole number. Identify common factors, the HCF and the lowest common multiple. Recognise prime and square numbers. Use index form for powers. Write decimals in order of size. Round decimals to the nearest whole number & to one decimal place. Multiply and divide by 10, 100 and 1000. Multiply decimals mentally. Check a result by considering whether it is of the right order of magnitude. Add and subtract decimals. Multiply and divide decimals by single-digit whole numbers. Divide numbers that give decimal answers. Compare and order simple fractions using equivalence Change an improper fraction to a mixed number. Add and subtract simple fractions. Calculate simple fractions and percentages of quantities. Convert between equivalent fractions, decimals and percentages Express one quantity as a fraction or percentage of another. Use direct proportion in simple contexts to solve problems. Use the unitary method to solve simple word problems Use ratio notation and reduce a ratio to its simplest form by cancelling Divide a quantity into two parts in a given ratio. Solve word problems involving ratio. Use fractions to describe and compare proportions. Understand and use the relationship between fractions, percentages ratio and proportion. Use percentages to describe and compare simple proportions. 	<ul style="list-style-type: none"> Find outputs of simple functions written in words and using symbols. Describe simple functions in words. Simplify linear algebraic expressions by collecting like terms. Multiply and divide algebraic terms. Write expressions to represent function machines and from word descriptions Substitute positive integers into simple formulae written in words or letters. Write simple formulae in words or using letter symbols. Identify formulae and functions. Identify the unknowns in a formula and a function Solve two-step equations using function machines / inverse operations. Recognise, describe and continue number sequences. Find missing terms in a sequence Find patterns and rules in sequences. Write and use number sequences to model real-life problems. Plot coordinates from rule. Solve problems and spot patterns in coordinates. Find the midpoint of a line segment. Use the term-to-term rule to work out more terms in a sequence. Recognise, name and plot straight line graphs parallel to the x- or y-axis. Recognise, name and plot the graphs of $y = x$ and $y = -x$. Plot straight line graphs using a table of values. Draw graphs to represent relationships. Generate terms of a sequence using a position-to-term rule. 	<ul style="list-style-type: none"> Solve simple problems involving units of measurement of length, mass and capacity. Convert between metric units of length, mass and capacity. Use scale diagrams. Read scales on a range of measuring equipment. Work out the perimeter of composite shapes and polygons and solve related problems. Find areas of irregular shapes by counting squares and calculate the area of shapes made from rectangle solving related problems. Use metric and imperial units. Understand the link between ml and cm^3 Calculate the volume of cubes and cuboids. Use a protractor to measure and draw angles. Recognise acute, obtuse and reflex angles. Identify angle and side properties of triangles. Use a ruler and protractor to draw triangles accurately. Use the rules for angles on a straight line, angles around a point and vertically opposite angles. Solve problems involving angles. Use the rule for the sum of angles in a triangle and quadrilateral. Calculate interior and exterior angles. Identify and name types of quadrilaterals. Name Common 3D shapes Identify 3D shapes from their nets Count the number of edges, faces and vertices Identify congruent shapes. Enlarge shapes using given scale factors and work out the scale factor given an object and its image. Recognise line and rotational symmetry in 2D shapes. Reflect, translate and rotate a shape on a coordinate grid. Describe a reflection, translation and rotation on a coordinate grid. Transform 2D shapes by combinations of rotations, reflections and translations. 	<ul style="list-style-type: none"> Find the mode, median mean and range of a set of data. Read and draw pictograms, bar charts and bar-line charts. Read and construct tally charts and frequency tables for discrete and grouped data. Find the mode and range from a chart or table. Read and construct grouped bar charts for discrete and continuous data. Find the modal class from a bar chart or frequency table. Read and draw a line graph, dual bar chart and compound bar chart. Use the language of probability. Understand and use the probability scale in words and values from 0 to 1. Identify outcomes and equally likely outcomes. Calculate probability based on equally likely outcomes. Calculate the probability of an event not happening. Record data from a simple experiment and estimate probability based on experimental data. Use probability to estimate the expected number of times an outcome will occur. <p>Application in Context</p> <ul style="list-style-type: none"> Develop strategies for solving problems Use their own strategies within mathematics and in applying mathematics to practical contexts Present information and results in a clear and organised way Search for a solution by trying out ideas of their own



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	Number: Place Value & 4 Rules	Number: Fractions & Decimals	Algebra	Geometry & Measures	Data & Probability
Year 6 Expectation (Grade T1, T2, T3)	<ul style="list-style-type: none"> read, write, order and compare numbers up to 10 000 000 and determine the value of each digit round any whole number to a required degree of accuracy use negative numbers in context, and calculate intervals across zero multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication divide numbers up to 4 digits by a two-digit whole number using the formal written method of short or long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context perform mental calculations, including with mixed operations and large numbers identify common factors, common multiples and prime numbers use their knowledge of the order of operations to carry out calculations involving the four operations solve problems involving addition, subtraction, multiplication and division use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. 	<ul style="list-style-type: none"> use common factors to simplify fractions use common multiples to express fractions in the same denomination compare and order fractions, including fractions > 1 add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form divide proper fractions by whole numbers associate a fraction with division and calculate decimal fraction equivalents identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places multiply one-digit numbers with up to two decimal places by whole numbers use written division methods in cases where the answer has up to two decimal places solve problems which require answers to be rounded to specified degrees of accuracy solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. Use the unitary method to solve simple problems of direct proportion. recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. solve problems involving the calculation of percentages and the use of percentages for comparison 	<ul style="list-style-type: none"> Understand how algebraic notation works, including that used for multiplication and division, squaring and cubing, and brackets. Understand the equivalence between expressions such as $p + p + p + p$ and $4p$; and between $\frac{1}{4}a$ and $a/4$. use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with two unknowns describe positions on the full coordinate grid (all four quadrants) <p>Application in Context</p> <ul style="list-style-type: none"> Select the mathematics they use in a wider range of classroom activities Try different approaches and find ways of overcoming difficulties that arise when they are solving problems Begin to organise their work and check results Use and interpret Mathematical symbols and diagrams Understand a general statement by finding particular examples that match it Review their work and reasoning 	<ul style="list-style-type: none"> draw 2-D shapes using given dimensions and angles recognise, describe and build simple 3-D shapes, including making nets compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons measure and draw angles, including reflex angles, to the nearest degree. Understand and use standard vocabulary when describing angles: 'acute', 'obtuse', 'reflex', 'right angle'. recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. draw and translate simple shapes on the coordinate plane. understand how to reflect shapes in a mirror line, and identify reflection symmetry. solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places. use, read, write and convert between standard units, converting measurements of length, mass, volume and time. calculate the area of rectangles, parallelograms and triangles calculate, estimate and compare volume of cubes and cuboids using standard units, including cm^3 and m^3 	<ul style="list-style-type: none"> Summarise information in tables, including grouping of data into frequency tables Present grouped, ungrouped and categorical data in simple charts and diagrams, including bar charts, pictograms and vertical line charts. interpret and construct pie charts and line graphs and use these to solve problems calculate and interpret the mean as an average. Know the types of process which have random outcomes, and understand the notion of fairness. Use the probability scale from 0 to 1 and use appropriate terminology connected with probability. Distinguish between cases when outcomes are equally likely and those where they are not, and develop the notion of fairness. Use equally likely outcomes to determine the probability of an event as a fraction. Use the fact that the sum of probabilities of all possible outcomes of an event is 1.



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	Number: Place Value, Addition, Subtraction	Number: 4 Rules	Number: Fractions & Decimals	Geometry & Measures	Data & Probability
Year 5 Expectation (Grade T4 5 T6)	<ul style="list-style-type: none"> read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 read Roman numerals to 1000 (M) and recognise years written in Roman numerals. add and subtract whole numbers with more than 4 digits, including using formal written methods add and subtract numbers mentally with increasingly large numbers use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why 	<ul style="list-style-type: none"> identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers establish whether a number up to 100 is prime and recall prime numbers up to 19 multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 recognise and use square numbers and cube numbers, and the notation (²) and (³) solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes solve problems involving addition, subtraction, multiplication and division and a combination of these solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. 	<ul style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number add and subtract fractions with the same denominator and denominators that are multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams read and write decimal numbers as fractions [for example, 0.71 = $\frac{71}{100}$] recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with two decimal places to the nearest whole number and to one decimal place read, write, order and compare numbers with up to three decimal places solve problems involving number up to three decimal places recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25. 	<ul style="list-style-type: none"> identify 3-D shapes, including cubes and other cuboids, from 2-D representations know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees (°) identify angles at a point in one whole turn (total 360°); angles at a point in $\frac{1}{2}$ a turn (total 180°) and other multiples of 90° distinguish between regular and irregular polygons based on reasoning about equal sides and angles. identify, describe and represent the position of a shape following a reflection or translation and know that the shape has not changed. convert between different units of metric measure (e.g. km and m; cm and m; cm and mm; gram and kilogram; litre and millilitre) calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] solve problems involving converting between units of time use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. 	<ul style="list-style-type: none"> solve comparison, sum and difference problems using information presented in a line graph complete, read and interpret information in tables, including timetables <p>Application in Context</p> <ul style="list-style-type: none"> Select the mathematics to use in some classroom activities Discuss work using mathematical language Begin to represent work using symbols and simple diagrams Predict what comes next in a simple number, shape or spatial pattern or sequence and give reasons for their opinions Explain why an answer is correct



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Year 4 Expectation (Grade T7, T8, T9)	<ul style="list-style-type: none"> count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) order and compare numbers beyond 1000 identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. 	<ul style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12×12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. 	<ul style="list-style-type: none"> recognise and show, using diagrams, families of common equivalent fractions count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number add and subtract fractions with the same denominator recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places solve simple measure and money problems involving fractions and decimals to two decimal places. 	<ul style="list-style-type: none"> compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes identify acute and obtuse angles and compare and order angles up to two right angles by size identify lines of symmetry in 2-D shapes presented in different orientations complete a simple symmetric figure with respect to a specific line of symmetry. describe positions on a 2-D grid as coordinates in the first quadrant describe movements between positions as translations of a given unit to the left/right and up/down plot specified points and draw sides to complete a given polygon. Convert between different units of measure [for example, kilometre to metre; hour to minute] measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares estimate, compare and calculate different measures, including money in pounds and pence read, write and convert time between analogue and digital 12- and 24-hour clocks solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. 	<ul style="list-style-type: none"> interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. <p>Application in Context</p> <ul style="list-style-type: none"> Select the mathematics to use in some classroom activities Discuss work using some mathematical language Begin to represent work using symbols and simple diagrams Predict what comes next in a simple number, shape or spatial pattern or sequence



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Key Stage 3 Grades

Each page above details the Key Skills, Knowledge and Understanding needed to meet the particular yearly expectations.

Students follow a spiral curriculum in that concepts are revisited, reinforced, applied to new contexts and extended each year.

Meeting the criteria for a particular yearly expectation includes the knowledge and understanding from the previous yearly expectations.

These are ten units covered across each year.

Each end of unit assessment gives an indication of the level of work demonstrated independently for that unit.

There are also end of term and end of year assessments covering the units taught in that period.

An average of these grades, from the assessments, is reported to parents three times a year.

The grade reported indicates the level of work demonstrated independently in these units in the assessments.

It is important to note that as a result the 'grade; at the three capture points will not necessarily increase across the year. It is more likely to be a similar grade as students are meeting new concepts and progress is being made to meet the corresponding expectation in these new areas.

Grades

Exceeding KS3 Expectations

Year 9 Secure

Year 9 Developing

Year 9 Beginning

Year 8 Secure

Year 8 Developing

Year 8 Beginning

Year 7 Secure

Year 7 Developing

Year 7 Beginning

T1 Year 6 Secure

T2 Year 6 Developing

T3 Year 6 Beginning

T4 Year 5 Secure

Y5 Year 5 Developing

T6 Year 5 Beginning