Arnold View Primary School

Maths Skills and Knowledge Progression Framework

Intent

At Arnold View Primary School, it is our belief that our curriculum should optimise the potential of the children in our care, raise standards of achievement and ensure that all children are given access to the highest possible standards of teaching and learning in mathematics. Our intent is that pupils:

- Access a high-quality mathematics education which provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.
- Access a balanced programme throughout the school, building on the Early Years curriculum through to the end of KS2, in order to raise standards.
- Improve their knowledge, skills, competence and understanding in using and applying numbers, measures, shape and space and data handling in a variety of contexts;
- Improve and develop their mental calculation skills by frequent and varied practice;
- Develop the skills required to solve problems through decision-making and reasoning in a range of contexts;
- Become fluent in the fundamentals of mathematics,
- Develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Are able to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
- Develop a practical understanding of the ways in which information is gathered and presented;
- Enjoy and are enthused by maths and have opportunities to learn through practical activity, exploration and discussion
- Understand the importance of mathematics in everyday life.

We believe in the importance of sequencing a curriculum which is progressive and designed effectively to reduce gaps in knowledge and to enable children to learn more and remember more. We also believe strongly in supporting cognitive load, enabling children to accumulate information in manageable chunks so that they understand one idea before moving onto the next.

Maths and SEND

For pupils with SEND, adaptations may be made in maths which are based on the child's individual needs. However, we acknowledge that pupils with SEND do not generally benefit from differentiated teaching, tasks or expectations. Targeted teaching, however, can be effective in ensuring pupils achieve specific goals. We also ensure that SEND pupils are appropriately challenged in maths by:

- Teaching staff using explicit and systematic instruction, as well as systematic rehearsal of conceptual and procedural knowledge.
- Having an ethos that any adaptations should be based on individual needs and should aim to retain ambition for pupils with SEND.
- Understanding that for pupils with SEND needs which are more complex, it may be appropriate to have different curriculum expectations.
- Carefully planning use of scaffolds to avoid dependence and using suitable manipulatives to reveal and illustrate information and relationships rather than as a memory aid.

Skills and Knowledge Progression Framework

	EYFS	KS1		LKS2		UKS2		KS3
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Number and Place Value	F1 Use number names to 10 and sometimes count accurately. Represent numbers using marks, fingers or digits. Say when two small groups have the same amount. Identify numerals in the environment. F2 Count up to three or four objects by saying one number name for each item. Count objects to 10 and begin to count beyond 10. Count out up to six objects from a larger group. Select the correct numeral to represent 1 to 5, then 1 to 10 objects and 1- 20. To begin to use 'teens' to count beyond 10. Count an arrangement of up to ten objects. Find one more or one less from a group of up to five objects, then ten objects. Estimate how many objects I can see and check by counting them. Use the language of 'more' and 'fewer' to compare two sets of objects. Fully understand 5,6, 7 ect and all manipulations of the number. Count objects, actions and sounds. Subitise. Understand the 'one more than/ one less than' relationship between consecutive numbers. Recall number bonds for numbers 0-10	Read and write numbers to at least 100 in numerals and words. Recognise the place value of each digit in a two digit number (tens, ones) Given a number, identify one more and one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. Count to and across 100, forwards and backwards, beginning with 0 and 1, from any given number. Given a number, identify one more or one less	Recognise the place value of each digit in a two digit number (tens, ones) Compare and order numbers from 0 up to 1000; use <, > and = signs. Use place value and number facts to solve problems. Read and write numbers to at least 100 in numerals and words. Identify, represent and estimate numbers using different representations, including the number line. Use place value and number facts to solve problems. Count in steps of 2, 3 and 5 from 0 and in tens from any number, forwards and backwards.	Count from 0 in multiples of 4 and 8. Count from 0 in multiples of 50 and 100. Read and write numbers up to 1000 in numerals and in words. Find 10 or 100 more of less than a given number. Identify, represent and estimate numbers using different representations. Order and compare numbers to 1000. Solve number problems and practical problems involving these ideas.	Count in multiples of 6, 7 and 9. Count in multiples of 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 4 digit number. Order and compare numbers to 1000. Identify, represent and estimate numbers using different representations. Round any number to the nearest 10, 100 and 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 how that over time, the numeral system changed to includer the concept of zero and place value.	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. Solve number problems and practical problems that involve all of the above. Read Roman Numerals to 1000 (M) and recognise years written in Roman Numerals .	Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. Use negative number in context, and calculate intervals across zero. Round any whole number to a required degree of accuracy. Solve number and practical problems that involve all of the above.	**Place Value and Proportion** Recognise the place value of any number in an integer up to one billion. Understand and write integers up to one billion in words and figures. Work out intervals and position integers on a number line. Round integers to the nearest power of ten. Compare numbers using =, ≠, , ≤, ≥ Order lists of integers. Find the median and range of a set of numbers. Understand place value for decimals. Position decimals on a number line. Compare and order any number up to one billion. Round a number to one significant figure. **Reasoning with Number** Know and use mental arithmetic strategies for: addition, subtraction, multiplication and division of integers; decimals and fractions. Use factors to simplify calculations. Use estimation to check mental calculations. Use known number and algebraic facts to derive other facts. Know when to use a mental strategy, formal written method or a calculator. Identify and represent sets. Interpret and create Venn diagrams.

Addition and subtraction	F2 Find the total number of items in two groups by counting all of them and counting on. Begin to use the vocabulary involved in adding and subtracting including counting on and back. Understand addition up to 5 using all combinations. Then 6,7,8,9,10. Explore the composition of numbers to 10.	Represent and use number bonds and related subtraction facts within 20. Read, write and interpret mathematical statements involving addition (+), subtractions (-) and equals (=) signs. Add and subtract one digit numbers to 20, including zero. Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two digit number and ones; a two digit number and tens; two digit numbers; adding three one digit numbers. Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Add and subtract numbers mentally, including: a three digit number and ones; a three digit number and tends; a three digit number and hundreds. Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. Estimate the answer to a calculation and use inverse operations to check answers. Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	Add and subtract numbers with up to 4 digits using the formal written methods of columnar additional and subtraction where appropriate. Estimate and use inverse operations to check answers to a calculation. Solve addition and subtraction two step problems in context, deciding which operations and methods to use and why.	Add and subtract numbers mentally with increasingly large numbers. Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. Solve addition and subtraction multistep problems in contexts, decided which operations and methods to use and why.	Perform mental calculations, including with mixed operations and large numbers. Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy. Solve addition and subtraction multistep problems in contexts, decided which operations and methods to use and why.	Understand and use the intersection or union of sets. Know and use the vocabulary of probability. Calculate the probability of a single event. Understand and use the probability scale. Know that the sum of probabilities of all possible outcomes is 1. Find and use multiples. Identify factors of numbers and expressions. Recognise and identify prime numbers, square and triangular numbers. Find common factors of a set of numbers including the HCF. Find common multiples of a set of numbers including the LCM. Write a number as a product of its prime factors. Make and test conjectures. Use counterexamples to disprove a conjecture. **Addition and Subtraction** Continue to develop understanding of properties of addition and subtraction.

Multiplication and division		Count in multiples of two, fives and tens. Solve one step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with support of the teacher. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts including problems in contexts.	Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts including problems in contexts. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplications (x), division (÷) and equals (=) signs. Show the multiplication of two numbers can be done in any order (commutative) and division of one number by another.	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Write and calculate mathematical statements for multiplication and division using multiplication tables they know, including for two digit numbers times one digit numbers, using mental and progressing to formal written methods. Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which objects are connected to objectives.	Recall and use multiplication and division facts for multiplication tables up to 12x12. Use place value, know and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers. 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. Recognise and use factor pairs and commutativity in mental maths. Multiply two-digit and three digit numbers by one-digit number using formal written layout.	Multiply and divide numbers mentally drawing up on known facts. Identify multiples and factors, including finding al factor pairs of numbers, and common factors of two numbers. Multiply numbers up to 4 digits by a one or two digit numbers using a formal written method, including long multiplication for 2 digits. 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. Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign. Multiply and divide whole numbers by 10, 100 and 1000.	Identify common factors, common multiples and prime numbers. Multiply multi-digit numbers up to 4 digits by a 2 digit number using the formal written method of long multiplication. Divide numbers up to 4 digits by a 2 digit whole number using a formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding as appropriate for the context. Divide numbers up to 4 digits by a 2 digit number using a formal written method of short division, interpreting remainders according to the context. Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve problems involving addition, subtraction, multiplication and division.	Continue to develop mental strategies for addition and subtractions. Use formal methods for addition and subtraction of integers. Use formal methods for addition and subtraction of decimals. Choose the most appropriate methods from: mental, formal written or calculator. Solve problems in the context of perimeter. Solve financial maths problems. Solve addition and subtraction problems involving: tables, timetables, frequency trees, bar charts and line charts. **<u>Multiplication and Division</u>** Understand the properties of multiplication and division. Understand and use factors and multiples.

Fractions, Decimals and Percentages	F2 Show some understanding of doubling and halving in familiar contexts.	Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	Recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity. Write simple fractions for example, ½ of 6= 3 and recognise the equivalence of 2/4 and ½.	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominations. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominations. Recognise and show, using diagrams, equivalents fractions with small denominations. Add and subtract fractions with the same denominations within one whole. Compare and order unit fractions, and fractions with the same denominators. Solve problems with all of the above.	Recognise and show, using diagrams, families of common equivalent fractions. Count up and down in hundredths; recognise that hundredths arrive when diving 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 unit and 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 decimal equivalents to ¼, ½, ¾ Find the effect of dividing a one or two digit number by 10 and 100. 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.	Compare and order fractions where denominators are 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 decimals as fractions [for example 0.71 = 71/100] Read, write, order and compare numbers with up to three decimals places. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. Round decimals with two decimal places to the nearest whole number and to one decimal place. Solve problems involving numbers up to 3dp. Recognise the percent symbol (%) and understand what per cent related to 'numbers of parts per hundreds', and write percentages as a fraction with a denominator 100, and as a decimal.	Compare and order fractions, including fractions >1 Use common factors to simplify fractions; use common multiples to express fractions in the same denominations. Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answers in its simplest form. Divide proper fractions by whole numbers [for example ½ ÷2 = 1/6] Associate a fraction with division and calculate decimal fraction equivalents [for example 0.375] for a simple fraction [for example 3/8] Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. Identify the value of each digit in numbers given to 3 decimals places and multiply numbers by 10, 100 and 1000 giving answers up to 3 decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy. Multiply one-digit numbers with up to 2 decimal places by whole numbers. Use written division methods in cases where the answer has up to 2dp. Solve problems involving calculations of percentages [for example, or measures and such as a 15% of 360]	Multiply and divide integers and decimals by powers of 10. Convert metric units. Use formal methods to multiply and divide integers and decimals. Understand and use order of operations. Solve problems using: area of rectangles and parallelograms; area of triangles; area of trapezia and mean average. **Algebraic Thinking** Describe and continue a sequence given diagrammatically. Predict and check the next term(s) of a sequence. Represent sequences in tabular and graphical forms. Recognise the difference between linear and non-linear sequences. Continue numerical linear and non-linear sequences. Explain the term-to-term rule of numerical sequences in words. Given the numerical input, find the output of a single function machine. Use inverse operations to find the input, give the output. Use diagrams and letters to generalise number operations and with single and two-step function machines. Find the function machine given a simple expression and a two-step expression. Substitute values into one-step and two-step expressions. Find numerical inputs and outputs for a series of two function machines. Generate sequences given an algebraic rule.

						Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/3, 2/4 and ¾ and those fractions with a denominator of a multiply of 10 or 25.	and the use of percentages for comparison. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	Understand the meaning of equality and of equivalence. Understand and use fact families, numerically and algebraically. Solve one-step linear equations involving +, -, x and ÷, using inverse operations. Understand the meaning of like and unlike terms.

Measurement	F1 Talk about the routine of the day and use language like 'before' and 'after.' Use comparative language like 'taller', 'shorter', 'the same'. F2 Experiment with length, height, capacity and use my findings to order and group items. Identify money and start to use money in play. Recall routines and start to relate them to the time on the clock. Compare length, weight and capacity.	Measure and begin to record lengths and heights. Measure and begin to record mass/weight, capacity and volume. Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.] Tell the time to the hour and half past the hour and draw hands on a clock face to show these times. Recognise and know the value of different denominations of coins and notes.	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. Know the number of minutes in an hour and the number of hours in a day. Recognise and use language relating to dates, including days of the week, weeks, months and years. Compare and sequence intervals of time. Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (k and kg), temperature (˚C), capacity (litres.ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amount of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	Measure, compare, add and subtract: mass (kg/g); volume/capacity (l/ml). Measure the perimeter of simple 2D shapes. Add and subtract amount of money to give change using both £ and p om practical contexts. Tell and write the time from an analogue clock, including using Roman Numerals and 12-hour and 24-hour clocks. Estimate and read time with increasing accuracy to the nearest minute. Record and compare time in terms of seconds, minutes and hours. Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events (for example to calculate the time taken by particular events or tasks).	Convert between different units of measure e.g. hour to minute. Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and meters. 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.	Measure and calculate the perimeter of composite rectilinear shapes in cm and m. Calculate and compare the area of rectangles (including squares), and including using standard units, cm^2, m^2 estimate the area of irregular shapes. Estimate volume [for example using 1cm^3 blocks to build cuboids (including cubes)] and capacity (for example, using water.] Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml]. Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. Solve problems involving converting between units of time. Use all four operations to solve problems involving measures [for example, length, mass, volume, money] using decimal notation, including scaling.	Recognise that shapes with the same area can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes. Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm^3, m^3 and extending to other units (mm^3, km^3). Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notations up to 3dp. Convert between miles and kilometres. Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.	Simplify algebraic expressions by collecting like terms, using the ≡ symbol. **Fractions, Decimals and Percentages** Represent any fraction as diagrams. Represent any fractions on number lines. Interchange between fractional and decimal number lines. Convert between fractions and decimals: tenths and hundredths; fifths and quarters; eighths and thousandths. Understand the meaning of percentage. Convert fluently between fractions, decimals and percentages. Use and interpret pie charts. Identify and use equivalent fractions. Understand fractions as division. Understand representations of fractions. Convert between mixed numbers and fractions. Add and subtract fractions from integers expressing the answer as a single fraction. Add and subtract fractions with any denominator. Add and subtract improper fractions and mixed numbers.

Geometry	F1 Start to identify shapes in the environment. Start to find appropriate shapes for certain tasks. Ask questions about my observations of differences and similarities. Start to make more meaningful pictures, patterns and arrangements with shapes. F2 Recall names for 2D and 3D shapes and use the terms to describe their properties. Order and sort according to simple properties. Compare and decompose shapes. Select, rotate and manipulate shapes in order to develop spatial reasoning skills.	Recognise and name common 2D shapes, including: (for example rectangles (including squares), circles and triangles). Recognise and name common 3D shapes, including: (for example, cuboids (including cubes), pyramids and spheres.) Describe position, direction and movement, including whole, half, quarter and three-quarter turns.	Identify and describe the property of 2D shapes, including the number of sides and line of symmetry in a vertical line. Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces. Identify 2D shapes on the surface of 3D shapes, [for example, a circle on a cylinder and a triangle on a pyramid.] Compare and sort common 2D and 3D shapes and everyday objects. Order and arrange combinations of mathematical objects in patterns and sequences. Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotations as a turn and in terms of tight angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).	Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them. Recognise angles as a property of shape or a description of a turn. Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. Identify horizontal and vertical lines and pairs or perpendicular and parallel lines. .	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 in size. Identify lines of symmetry in 2D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry. Describe positions on a 2D 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.	Identify 3D shapes, including cubes and other cuboids, from 2D representations. Use the properties of rectangles to deduce related facts and find missing lengths and angles. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. Know angles and measured in degrees: estimate and compare acute, obtuse and reflex angles. Draw given angles, and measure them in degrees (°) Identify angles at a point and one whole turn (total 360°), angles at a point on a straight line and ½ turn (total 180°) other multiples of 90°	Identify, describe and represent the position of a shape following a reflection or a translation, using the appropriate language, and know that the shape has not changed. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in a triangle, quadrilaterals and regular polygons. Draw 2D shapes using given dimensions and angles. Recognise angles where they meet at a pint, are on a straight line, or are vertically opposite, and find missing angles.	Use fractions in algebraic contexts. **Directed Number** Understand and use representations of directed numbers. Order directed numbers using lines and appropriate symbols. Perform calculation that cross zero. Add, subtract, multiply and divide directed numbers. Use a calculator for directed number calculations. Evaluate algebraic expressions with directed number. Use order of operations with directed numbers. **Lines and Angles** Understand and use letter and labelling conventions including those for geometric figures. Draw and measure line segments including geometric figures. Understand angles as a measure of a turn and classify them.

Statistics			Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantities. Ask and answer questions about totalling and comparing categorical data.	Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions (for example, 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables.	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.	Solve comparisons, sum and difference problems using information presented in a line graph. Complete, read and interpret information in tables including timetables.	Interpret and construct pie charts and line graphs and use these to solve problems. Calculate the means as an average.	Measure and draw angles. Recognise a range of shapes. Construct triangles using SSS, SAS and ASA. Construct more complex polygons. Interpret pie charts using proportion or a protractor. Draw simple pie charts. Understand and use the sum of angles at a point or on a straight line. Understand and use the equality of vertically opposite angles. Know and apply the sum of angles in a triangle and quadrilateral and solve problems involving these.