Mathematics – Number and Place Value

YR Number and Place Value

- Develop fast recognition of up to 3 objects, without having to count them individually – subitising (Development Matters 3 and 4 year olds)
- Recite numbers past 5 (Development Matters 3 and 4 year olds)
- Say one number for each item in order: 1, 2, 3, 4, 5 (Development Matters 3 and 4 year olds)
- Know that the last number reached when counting a small set of objects tells you how many there are in total (cardinal principle) (Development Matters 3 and 4 year olds)
- Show 'finger numbers' up to 5. (Development Matters 3 and 4 year olds)
- Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. (Development Matters 3 and 4 year olds)
- Experiment with their own symbols and marks as well as numerals (Development Matters 3 and 4 year olds)
- Solve real word mathematical problems with numbers up to 5 (Development Matters 3 and 4 year olds)
- Compare quantities using language; 'more than', 'fewer than' (Development Matters 3 and 4 year olds)
- Count objects, actions and sounds (Development Matters – Reception)
- Subitise (Development Matters – Reception)
- Link the number symbol (numeral) with its cardinal number value (Development Matters – Reception)
- Compare numbers (Development Matters – Reception)
- Count beyond ten (Development Matters – Reception)
- **Have a deep understanding to 10, including the composition of each number.** (ELG)
- **Subitise (recognise quantities without counting) up to 5.** (ELG)
- **Verbally count beyond 20, recognising the pattern the counting system.** (ELG)
- **Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.** (ELG)
- **Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.** (ELG)

Y1 Number and Place Value

- I can count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- I can count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens given a number, identify one more and one less
- I can use the language of: equal to, more than, less than (fewer), most, least
- I can identify and represent numbers using objects and pictorial representations including the number line
- I can read and write numbers from 1 to 20 in numerals and words.

Y2 Number and Place Value

- I can count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward
- I can compare and order numbers from 0 up to 100; use <, > and = signs
- I can two-digit numbers to the nearest 10
- I can identify, represent and estimate numbers using different representations, including the number line
- I can read and write numbers to at least 100 in numerals and in words
- I can recognise the place value of each digit in a two---digit number (tens, ones)
- I can use place value and number facts to solve problems.

Y3 Number and Place Value

- I can count from 0 in multiples of 4, 8, 50 and 100;
- I can find 10 or 100 more or less than a given number
- I can compare and order numbers up to 1 000
- I can identify, represent and estimate numbers using different representations
- I can read and write numbers up to 1 000 in numerals and in words
- I can tell and write the time from an analogue clock, including using Roman numerals
- I can recognise the place value of each digit in a three digit number (hundreds, tens, ones)
- I can solve number problems and practical problems involving above ideas.

Y4 Number and Place Value

- I can count backwards through zero to include negative numbers
- I can count in multiples of 6, 7, 9, 25 and 1 000
- I can find 1 000 more or less than a given number
- I can order and compare numbers beyond 1 000
- I can compare numbers with the same number of decimal places up to two decimal places
- I can identify, represent and estimate numbers using different representations
- I can 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.

- I can recognise the place value of each digit in a four---digit number
- I can 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 units, tenths and hundredths
- I can round any number to the nearest 10, 100 or 1 000
- I can round decimals with one decimal place to the nearest whole number
- I can solve number and practical problems that involve all of the above and with increasingly large positive numbers

Y5 Number and Place Value

- I can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- I can count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
- I can read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
- I can read Roman numerals to 1 000 (M) and recognise years written in Roman numerals.
- I can round any number up to 1 000 000 to the nearest 10, 100, 1 000, 10 000 and 100 000
- I can round decimals with two decimal places to the nearest whole number and to one decimal place
- I can solve number problems and practical problems that involve all of the above

Y6 Number and Place Value

- I can use negative numbers in context, and calculate intervals across zero
- I can read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
- I can identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1 000 where the answers are up to three decimal places
- I can round any whole number to a required degree of accuracy
- I can solve problems which require answers to be rounded to specified degrees of accuracy
- I can solve number and practical problems that involve all of the above
- I can use decimal notation for tenths, hundredths and thousandths, partition and order numbers with up to three decimal places, and position them on the number line

Mathematics – Addition and Subtraction

YR Addition and Subtraction

- Understand the one more/one less than relationship between consecutive numbers (Development Matters – Reception)
- Explore the composition of numbers up to 10 (Development Matters – Reception)
- Automatically recall number bonds for numbers 0 to 5 and some to 10 (Development Matters – Reception)
- **Have a deep understanding to 10, including the composition of each number.** (ELG)
- **Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and same number bonds to 10, including double facts.** (ELG)
- **Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.** (ELG)

Y1 Addition and Subtraction

- I can represent and use number bonds and related subtraction facts within 20
- I can add and subtract one digit and two---digit numbers to 20, including zero
- I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods)
- I can solve one--step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ☐ - 9

Y2 Addition and Subtraction

- I can recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- I can halve and double 2 digit numbers
- I can 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 two---digit numbers adding three one---digit numbers
- I can show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- I can recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
- I can solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures and applying their increasing knowledge of mental and written methods
- I can solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change

Y3 Addition and Subtraction

- I can add and subtract numbers mentally, including: a three---digit number and ones / a three---digit number and tens / a three---digit number and hundreds
- I can add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
- I can estimate the answer to a calculation and use inverse operations to check answers
- I can solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Y4 Addition and Subtraction

- I can add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- I can estimate and use inverse operations to check answers to a calculation
- I can solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

Y5 Addition and Subtraction

- I can add and subtract numbers mentally with increasingly large numbers
- I can add and subtract whole numbers with more than 4 digits, including using formal written methods
- I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- I can solve addition and subtraction multi---step problems in contexts, deciding which operations and methods to use and why.

Y6 Addition and Subtraction

- I can perform mental calculations, including with mixed operations and large numbers
- I can use their knowledge of the order of operations to carry out calculations involving the four operations
- I can use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.
- I can solve addition and subtraction multi---step problems in contexts, deciding which operations and methods to use and why
- I can solve problems involving addition, subtraction, multiplication and division.

Mathematics – Multiplication and Division

Y1 Multiplication and Division

- I can count in multiples of twos, fives and tens
- I can solve one---step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

Y2 Multiplication and Division

- I can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognizing odd and even numbers
- I can show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- I can calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
- I can solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

Y3 Multiplication and Division

- I can recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- I can write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two---digit numbers times one digit numbers, using mental and progressing to formal written methods
- I can write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two---digit numbers times one---digit numbers, using mental and progressing to formal written methods
- I can solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects

Y4 Multiplication and Division

- I can recall multiplication and division facts for multiplication tables up to 12 × 12
- I can multiply two-digit and three-digit numbers by a one digit number using formal written layout
- I can 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
- I can recognise and use factor pairs and commutativity in mental calculations
- I can 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

Y5 Multiplication and Division

- I can multiply and divide numbers mentally drawing upon known facts
- I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- I can 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
- I can 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
- I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
- I 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
- I can recognise and use square numbers and cube numbers, and he notation
- I can solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
- I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- I can solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates

Y6 Multiplication and Division

- I can perform mental calculations, including with mixed operations and large numbers
- I can multiply multi---digit numbers up to 4 digits by a two---digit whole number using the formal written method of long multiplication
- I can divide numbers up to 4---digits by a two---digit whole number using the formal written method of short division where appropriate for the context divide numbers up to 4 digits by a two---digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- I can use written division methods in cases where the answer has up to two decimal places
- I can identify common factors, common multiples and prime numbers
- I can use their knowledge of the order of operations to carry out calculations involving the four operations
- I can use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy
- I can recognise that prime numbers have only two factors and identify prime numbers less than 100; find the prime factors of two---digit whole numbers
- I can check calculations for accuracy using the rules of divisibility
- I can solve problems involving addition, subtraction, multiplication and division

Mathematics – Fractions, Decimals and Percentages

Y1 Fractions

- I can recognise, find and name a half as one of two equal parts of an object, shape or quantity
- I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Y2 Fractions

- I can recognise, find, name and write fractions ½ ¼ ¾ 1/3 2/4 and / of a length, shape, set of objects or quantity
- I can write simple fractions e.g. ½ of 6 = 3 and recognise the simple equivalence

Y3 Fractions

- I can count up and down in tenths
- I can recognise, find and write fractions of a discrete set of objects: unit fractions and non---unit fractions with small denominators
- I can recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10.
- I can recognise and use fractions as numbers: unit fractions and non---unit fractions with small denominators
- I can compare and order unit fractions, and fractions with the same denominators
- I can recognise and show, using diagrams, equivalent fractions with small denominators
- I can add and subtract fractions with the same denominator within one whole. E.g one seventh + 3 sevenths = 4 sevenths.
- I can solve problems that involve all of the above using fractions.

Y4 Fractions, Decimals and Percentages

- I can count up and down in hundredths
- I can recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
- I can compare numbers with the same number of decimal places up to two decimal places
- I can round decimals with one decimal place to the nearest whole number
- I can recognise and show, using diagrams, families of common equivalent fractions

- I can recognise and write decimal equivalents of any number of tenths or hundredths
- I can recognise fraction and decimal equivalence ¼ , ½ , ¾
- I can add and subtract fractions with the same denominator
- I can 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
- I can 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

Y5 Fractions, Decimals and Percentages

- I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- I can compare and order fractions whose denominators are all multiples of the same number
- I can read, write, order and compare numbers with up to three decimal places
- I can round decimals with two decimal places to the nearest whole number and to one decimal place
- I can add and subtract fractions with the same denominator and multiples of the same number
- I can recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements
- I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- I can read and write decimal numbers as fractions (e.g. 0.71 = / 71/100)
- I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- I can 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 as a decimal fraction
- I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- I can solve problems involving numbers up to three decimal places
- I can solve problems which require knowing percentage and decimal equivalence

Y6 Fractions, Decimals and Percentages (including ratio and proportion)

- I can compare and order fractions including fractions >1
- I can identify the value of each digit in numbers given to three decimal places
- I can solve problems which require answers to be rounded to specified degrees of accuracy

- I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- I can associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8)
- I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
- I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- I can multiply simple pairs of proper fractions, writing the answer in its simplest form
- I can find fractions and percentages of whole---number quantities, e.g. 5/8 of 96, 65% of £260
- I can multiply one---digit numbers with up to two decimal places by whole numbers
- I can divide proper fractions by whole numbers
- I can multiply one---digit numbers with up to two decimal places by whole numbers
- I can multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
- I can identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
- I can use written division methods in cases where the answer has up to two decimal places
- I can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
- I can solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
- I can solve problems involving similar shapes where the scale factor is known or can be found
- I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Mathematics - Algebra

Y1 Algebra

- I can solve one---step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = *□ - 9 (copied from Addition and Subtraction)
- I can represent and use number bonds and related subtraction facts within 20 (copied from Addition and Subtraction)
- I can sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening (copied from Measurement)

Y4 Algebra

- I can express Perimeter algebraically as 2(a + b) where a and b are the dimensions in the same unit.

Y5 Algebra

- I can use the properties of rectangles to deduce related facts and find missing lengths and angles

Y6 Algebra

- I can express missing number problems algebraically
- I can find pairs of numbers that satisfy number sentences involving two unknowns
- I can use simple formulae
- I can generate and describe linear number sequences

Mathematics – Measurement (including time)

YR Measurement (including time)

- Make comparisons between objects relating to size, length, weight and capacity. (Development Matters 3 and 4 year olds)
- Being and describe a sequence of events, real or fictional, using words such as; 'first', 'then' … (Development Matters 3 and 4 year olds)
- Compare length, weight and capacity (Development Matters – Reception)

Y1 Measurement (including time)

- compare, describe and solve practical problems for:
- lengths and heights mass/weight [e.g. heavy/light, heavier than, lighter than] capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] time [e.g. quicker, slower, earlier, later]
- sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday]
- measure and begin to record the following: lengths and heights mass/weight / capacity and volume /time (hours, minutes, seconds)
- recognise and know the value of different denominations of coins and notes
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
- recognise and use language relating to dates, including days of the week, weeks, months and years

Y2 Measurement (including time)

- compare and order lengths, mass, volume/capacity and record the results using >, < and =
- compare and sequence intervals of time
- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); 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 amounts of money
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- 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.

Y3 Measurement (including time)

- compare and order lengths, mass, volume/capacity and record the results using >, < and =
- compare and sequence intervals of time
- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); 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 amounts of money
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- 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.

Y4 Measurement (including time)

- estimate, compare and calculate different measures, including money in pounds and pence
- .measure and calculate the perimeter of a rectilinear figure
- find the area of rectilinear shapes by counting squares
- 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
- convert between different units of measure (e.g. kilometre to metre; hour to minute)
- read, write and convert time between analogue and digital 12 and 24---hour clocks

Y5 Measurement (including time)

- calculate and compare the area of squares and rectangles including using standard units and estimate the area of irregular shapes
- estimate volume (e.g) using 1 cm blocks to build cubes and cuboids) and capacity (e.g. using water)
- use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.
- measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- calculate and compare the area of squares and rectangles including using standard units
- solve problems involving converting between units of time
- convert between different units of metric measure
- solve problems involving converting between units of time
- understand and use equivalences between metric units and common imperial units such as inches, pounds and pints

Y6 Measurement (including time)

- calculate, estimate and compare volume of cubes and cuboids using standard units. Extend to mm and km
- recognise when it is possible to use formulae for area and volume of shapes
- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
- recognise that shapes with the same areas can have different perimeters and vice versa
- calculate the area of parallelograms and triangles
- calculate, estimate and compare volume of cubes and cuboids using standard units
- 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 notation to up to three decimal places
- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
- convert between miles and kilometres

Mathematics – Geometry, Shape and Position

YR Geometry Shape and Position

- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round' (Development Matters 3 and 4 year olds)
- Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc. (Development Matters 3 and 4 year olds)
- Combine shapes to make new ones – an arch, a bigger triangle, etc.
- Understand position through words alone – for example, 'The bag is under the table' – with no pointing. (Development Matters 3 and 4 year olds)
- Describe a familiar route (Development Matters 3 and 4 year olds)
- Discuss routes and locations, using words like 'in front of' and 'behind'. (Development Matters 3 and 4 year olds)
- Talk about and identifies the patterns around them. (Development Matters 3 and 4 year olds)
- Extend and create ABAB patterns. (Development Matters 3 and 4 year olds)
- Notice and correct an error in a repeating pattern. (Development Matters 3 and 4 year olds)
- Select, rotate and manipulate shapes in order to develop spatial reasoning skills (Development Matters – Reception)
- Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can (Development Matters – Reception)
- Continue, copy and create a repeating pattern (Development Matters – Reception)

Y1 Geometry Shape and Position

- recognise and name common 2---D, including: rectangles, squares, circles and triangles
- recognise and name: 3---D shapes: cuboids, cubes, pyramids and spheres.
- describe position, direction and movement, including half, quarter and three---quarter turns.

Y2 Geometry Shape and Position

- identify and describe the properties of 2---D shapes, including the number of sides and line symmetry in a vertical line
- identify and describe the properties of 3---D shapes, including the number of
- edges, vertices and faces
- identify 2---D shapes on the surface of 3---D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]
- compare and sort common 2---D and 3---D shapes and everyday objects
- use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three--- quarter turns (clockwise and anti---clockwise)

Y3 Geometry Shape and Position

- draw 2---D shapes and make 3---D shapes using modelling materials; recognise 3---D 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 of perpendicular and parallel lines

Y4 Geometry Shape and Position

- 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
- 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
- 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

Y5 Geometry Shape and Position

- identify 3---D shapes, including cubes and other cuboids, from 2---D representations
- draw given angles, and measure them in degrees
- 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 are measured in degrees: estimate and compare acute, obtuse and reflex angles
- Identify angles at a point and on a straight line
- identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed

Y6 Geometry Shape and Position

- recognise, describe and build simple 3---D shapes, including making nets
- illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- draw 2---D shapes using given dimensions and angles
- compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
- describe positions on the full coordinate grid (all four quadrants)
- draw and translate / rotate simple shapes on the coordinate plane, and reflect them in the axes.

Mathematics - Statistics

Y2 Statistics

- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- Using lists/tables/diagrams to sort objects
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
- ask and answer questions about totalling and comparing categorical data

Y3 Statistics

- interpret and present data using bar charts, pictograms and tables
- solve one---step and two step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

Y4 Statistics

- interpret and present data using bar charts, pictograms and tables
- solve one---step and two step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

Y5 Statistics

- complete, read and interpret information in tables, including timetables
- solve comparison, sum and difference problems using information presented in a line graph

Y6 Statistics

- interpret and construct pie charts and line graphs and use these to solve problems; Solve problems involving selecting, processing, presenting and interpreting data, using ICT where appropriate; construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts; draw conclusions
- calculate and interpret the mean, median and mode as an average
- discuss the likelihood (probability) of an event.