Early Years Foundation Stage (EYFS)
Cardinality and Counting
The cardinal value of a number refers to the quantity of things it represents, e.g. the numerosity, 'howmanyness', or 'threeness' of three. When children understand the cardinality of numbers, they know what the numbers mean in terms of knowing how many things they refer to. Counting is one way of establishing how many things are in a group, because the last number you say tells you how many there are. Children enjoy learning the sequence of counting numbers long before they understand the cardinal values of the numbers. Subitising is another way of recognising how many there are, without counting.
What to look for
Can a child: • consistently recite the correct sequence of numbers and cross decade boundaries? • collect nine from a large pile, e.g. nine pencils from a pot? • subitise (instantly recognise) a group that contains up to four, then five, in a range of ways, e.g. fingers, dice, random arrangement? • select a numeral to represent a quantity in a range of fonts, e.g.4, 4, 4 ? • correct a puppet who thinks the amount has changed when their collection has been rearranged?
Comparison
Comparing numbers involves knowing which numbers are worth more or less than each other. This depends both on understanding cardinal values of numbers and also knowing that the later counting numbers are worth more (because the next number is always one more). This understanding underpins the mental number line which children will develop later, which represents the relative value of numbers, i.e. how much bigger or smaller they are than each other.
What to look for
Can a child: • state which group of objects has more? Can they do this with a large or small visual difference? • compare two numbers and say which is the larger? • predict how many there will be if you add or take away one?
Composition
Knowing numbers are made up of two or more other smaller numbers involves 'part–whole' understanding. Learning to 'see' a whole number and its parts at the same time is a key development in children's number understanding. Partitioning numbers into other numbers and putting them back together again underpins understanding of addition and subtraction as inverse operations.
What to look for
Can a child: • subitise small groups within a larger number? • make a reasonable guess at a hidden number? • in context, state two groups that make a larger amount? For example, how might the (six) bean bags land? You could have three with stripes up and three with spots up.
Pattern
Seeking and exploring patterns is at the heart of mathematics (Schoenfeld, 1992). Developing an awareness of pattern helps young children to notice and understand mathematical relationships. Clements and Sarama (2007) identify that patterns may provide the foundations of algebraic thinking, since they provide the opportunity for young children to observe and verbalise generalisations. The focus in this section is on repeating patterns, progressing from children copying simple alternating AB patterns to identifying different structures in the 'unit of repeat', such as ABB or ABBC. Patterns can be made with objects like coloured cubes, small toys, buttons and keys, and with outdoor materials like pine cones, leaves or large blocks, as well as with movements and sounds, linking with music, dance, phonics and rhymes. Children can also spot and create patterns in a range of other contexts, such as printed patterns, timetables, numbers and stories.
What to look for
Can a child: • continue, copy and create an AB pattern? • identify the pattern rule (unit of repeat) in an AB pattern?

• continue, copy and create ABB, ABBC (etc.) patterns?

• identify the pattern rule (unit of repeat) in ABB, ABBC (etc.) patterns?

• spot an error and 'correct' a pattern?

• explain whether a circular pattern is continuous or not?

Shape and Space

Mathematically, the areas of shape and space are about developing visualising skills and understanding relationships, such as the effects of movement and combining shapes together, rather than just knowing vocabulary. Spatial skills are important for understanding other areas of maths and children need structured experiences to ensure they develop these. Here, the focus is on actively exploring spatial relations and the properties of shapes, in order to develop mathematical thinking (rather than on shape classification, which requires prior knowledge of properties). This section is concerned with developing the two aspects of spatial awareness and shape awareness, with some progression identified within each.

What to look for

Can a child:

• select and rotate shapes to fit into a given space?

• use positional vocabulary, including relative terms, to describe where things are in small-world play?

• show intentionality in selecting shapes for a purpose, such as cylinders to roll?

• make a range of constructions, including enclosures, and talk about the decisions they have made?

• see shapes in different orientations and recognise that they are still that shape?

• recognise a range of triangles and say how they know what they are?

Measures

Mathematically, measuring is based on the idea of using numbers of units in order to compare attributes, such as length or capacity. Although young children engage with using rulers and experience being measured in centimetres, kilos – and years! – the measuring units themselves are hard to understand. Children need to realise which attribute is being measured, e.g. weight as opposed to size, and the idea of conservation: that the amount stays the same, even if the appearance alters, e.g. if dough is stretched out or in bits. In order to understand units, they need to realise that two items can be compared using a third item, or 'go between', such as a stick. Finally, children need to understand how equal size units are used repeatedly to express an amount as a number. While young children can engage actively in making comparisons and exploring equivalence of length, volume, capacity and weight in different ways, some of these ideas are challenging and will develop later in primary school. For instance, weight (mass or density) is difficult to distinguish from size since it is invisible, and the concept of conservation is harder to understand for weight and capacity. Measuring with non-standard units of different sizes in order to appreciate the need for equal units is less effective with younger children, so centimetre cubes are recommended as accessible units. While time is also elusive to measure, young children can sequence events and, for example, count 'sleeps'. (Money as a measure of value is too advanced to consider here.)

What to look for

Can a child:

• find something that is longer, shorter, heavier, lighter (etc.) than a reference item?

• find an appropriate container for a specific item?

• describe the location of something using positional language?

• accurately use the relative terms 'yesterday' and 'tomorrow'?

• order a short sequence of events?

	Key Stage 1 and Key Stage 2			
	Number and place value	**Addition and Subtraction**	**Multiplication and Division**	**Fractions (including decimals and percentages)**
Year 1	• Read and write numbers from 1 to 20 in numerals and words. • Given a number, identify one more and one less • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • 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, read and write numbers to 100 in numerals; count in multiples of 2, 5 and 10	• Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs • Add and subtract one-digit and two-digit numbers to 20, including zero • Show and use subtraction facts within 20 • Represent and use number bonds to 20 • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 + _ = 9	• Share and group small amounts using concrete objects. • Use arrays to multiply • Double single digit numbers • Solve one-step problems involving multiplication and division	• Recognise, find and name a half as one of two equal parts of an object, shape • Recognise, find and name a quarter as one of four equal parts of an object, shape • recognise, find and name a half as one of two equal parts of an amount • Recognise, find and name a quarter as one of four equal parts of a quantity
Year 2	• Identify, represent and estimate numbers using different representations, including the number line • Count in steps of ten from any number, forwards and backwards. • Recognise the place value of each digit in a two-digit number (tens, ones) use <, > and = signs • Use place value and number facts to solve problems. • Compare and order numbers from 0 up to 100; • Count in steps of 2,3,5 from any number, forward and backward. • Read and write numbers to at least 100 in numerals and in words	• Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: • a two-digit number and ones • a two-digit number and tens • 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 using concrete objects, pictorial representations, and mentally, including: • two two-digit numbers • adding three one-digit numbers • Solve problems with addition and subtraction: using concrete objects and	• Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • Recognise odd and even numbers. • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, • Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	• Recognise, find, name and write fractions 1/3, 1/4, 2/4, ¾ of a shape and a set of objects. • Recognise, find, name and write fractions 1/3, 1/4, 2/4, ¾ of a length and quantity • Write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2.

		pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge		
Year 3	• Read and write numbers up to 1000 in numerals and in words. • Solve number problems and practical problems involving these ideas. • Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • Identify, represent and estimate numbers using different representations. • Find 10 or 100 more or less than a given number • Count from 0 in multiples of 4, 8, 50 and 100. • Compare and order numbers up to 1000.	• Add and subtract numbers mentally, including: a three-digit number and ones • Add and subtract numbers mentally, including: a three-digit number and tens, a three-digit number and hundreds • Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. • Estimate the answer to a calculation and use inverse operations to check answers.	• Use efficient written methods to multiply a two-digit by one-digit number. • Recall and use multiplication and division facts for the 3, 4 multiplication tables • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know. • Use mental strategies to multiply a two-digit by a one-digit number. • Recall and use multiplication and division facts for the 8 multiplication tables • 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.	• 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 • denominators • Add and subtract fractions with the same denominator within one whole [for example, 7/7 +1/7 = 6/7] • Compare and order unit fractions, and fractions with the • same denominators • Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • Recognise and show, using diagrams, equivalent fractions with small denominators • Solve problems that involve all of the above.
Year 4	• Find 1000 more or less than a given • number • Round any number to the nearest 10, • 100 or 1000 • Recognise the place value of each digit • in a four-digit number (thousands, hundreds, tens, and ones) • 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. • Order and compare numbers beyond • 1000	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • Solve addition and subtraction two-step • problems in contexts, deciding which operations and methods to use and why.	• Multiply two-digit by a one-digit number using a formal written layout • Recognise and use factor pairs and • commutatively in mental calculations • Multiply three-digit numbers by a one-digit number using a formal written layout • 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	• 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 • Compare numbers with the same number of decimal places up to two decimal places • Recognise and show, using diagrams, families of common equivalent fractions • Count up and down in hundredths; recognise that

	• Identify, represent and estimate numbers using different representations • Solve number and practical problems that involve all of the above and with increasingly large positive numbers • Count backwards through zero to include negative numbers • Count in multiples od 6, 7, 8, 9, 25 and 1000.		• 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. • Recall multiplication and division facts for multiplication tables up to 12 x 12.	hundredths arise when dividing an object by one hundred and dividing tenths by ten. • Solve simple measure and money problems involving fractions and decimals to two decimal places. • Round decimals with one decimal place to the nearest whole number • Recognise and write decimal equivalents to ¼, ½, ¾ • Add and subtract fractions with the same denominator • 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 • Recognise and write decimal equivalents of any number of tenths or hundredths
Year 5	• Determine the value of each digit of • numbers up to 1 000 000 • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • Count forwards or backwards in steps of powers of 10 for any given number up to • 1 000 000 • Read, write, order and compare numbers • to at least 1 000 000 • 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.	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • 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 multistep problems in contexts, deciding which operations to use and why.	• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • Establish whether a number up to 100 is prime and recall prime numbers up to 19 • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • Multiply numbers up to 4 digits by a one- digit or two-digit number using a formal written method, including long multiplication for two-digit numbers	• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • Read, write, order and compare numbers with up to three • decimal places • Write % as a fraction • Solve problems involving number up to three decimal places • Compare and order fractions whose denominators are all multiples of the same number • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical

Year				
			• Multiply and divide numbers mentally drawing upon known facts • 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 • Know and use the vocabulary of prime • numbers, prime factors and composite (nonprime) numbers • Rcognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5] • Read and write decimal numbers as fractions [for example, 0.71 = 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 • 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 ½ , ¼, 1/5, 2/5, 4/5nand those fractions with a denominator of a multiple of 10 or 25. • 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.
Year 6	• 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 • Solve number and practical problems	• 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 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 two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • Perform mental calculations, including with mixed operations and large numbers		• 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

		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 addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	and mixed numbers, using the concept of equivalent fractions · Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ¼ x ½ = 1/8 · Divide proper fractions by whole numbers [for example, 1/3 ÷ 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] · 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 · Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
that involve all of the above.			
Ratio and proportion (Y6 only)	· Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts · Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison · Solve problems involving similar shapes where the scale factor is known or can be found · Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples		
Algebra (Y6 only)	· 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 · Enumerate possibilities of combinations of two variables.		

		Measurement	Geometry	Statistics
Year 1		• Recognise and use language relating to days of the week. • Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • Recognise and know the value of different denominations of coins and notes • Recognise and use language relating to dates relating to weeks, months and years • Measure and begin to record the following: lengths and heights mass/weight capacity and volume time (hours, minutes, seconds) • Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. • Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] • or time [for example, quicker, slower, earlier, later]	• Describe position, direction and movement. • Recognise and name common 2-D shapes for example, rectangles (including squares), circles and triangles • Describe movement including whole, half, quarter and three-quarter turns. • Recognise and name common 3-D shapes for example, cuboids (including cubes), pyramids and spheres	
Year 2		• Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • 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 • Compare and order lengths, mass, volume/capacity and record the results using >, < and = • Know the number of minutes in an hour and the number of hours in a day. • Compare and sequence intervals of time	• Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • Order and arrange combinations of mathematical objects in patterns and sequences • 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	• Interpret and construct simple pictograms • Interpret and construct tally charts • Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • Interpret and construct block diagrams and simple tables • Ask and answer questions about totalling and comparing categorical data

	• 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 • Find different combinations of coins that equal the same amounts of money.	angles for quarter, half and three-quarter turns (clockwise and anticlockwise).	
Year 3	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • Measure the perimeter of simple 2-D shapes • Add and subtract amounts of money to give change, using both £ and p in practical contexts • Tell and write the time from an analogue clock in 12-hour and 24-hour clocks • Compare durations of events [for example to calculate the time taken by particular events or tasks] • Know the number of seconds in a minute and the number of days in each month, year and leap year • Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight • Tell the time using Roman numerals from I to XII.	• Draw 2-D shapes • Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them • Identify right angles, • Identify whether angles are greater than or less than a right angle • Recognise angles as a property of shape or a description of a turn • Recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn • Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	• Interpret and present data using pictograms • Interpret and present data using bar charts 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. • Solve two-step questions using information presented in scaled bar charts and pictograms and tables.
Year 4	• Convert between different units of measure [for example, kilometre to metre; hour to minute] • Find the area of rectilinear shapes by counting squares • Read, write and convert time between analogue and digital 12- and 24-hour clocks • Measure and calculate the perimeter of rectilinear figure (including squares) in centimetres and metres • Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. • Estimate, compare and	• Identify lines of symmetry in 2-D shapes presented in different orientations • Describe positions on a 2-D grid as coordinates in the first quadrant • Plot specified points and draw sides to complete a given polygon. • Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • Describe movements between positions as translations of a given unit to the left/right and up/down • Complete a simple symmetric figure with respect to a specific line of symmetry. • Identify acute and obtuse angles and compare and order angles up to two right angles by size	• Interpret and present discrete data using appropriate graphical methods, including bar charts. • Solve sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. • Solve comparison problems using information presented in bar charts, pictograms, tables and other graphs. • Interpret and present continuous data using appropriate graphical methods, including time graphs.
Year 5	• Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	• 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 (o)	• Complete, read and interpret • information tables, including • timetables. • Solve sum and difference problems using information

	• Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) • Estimate volume [for example, using 1 cm3blocks to build cuboids (including cubes)] and capacity [for example, using water] • Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • Estimate the area of irregular shapes • Solve problems involving converting between units of time • Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.		• Identify angles at a point and one whole turn (total 360°) • Identify angles at other multiples of 90° • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. • Use the properties of rectangles to deduce related facts and find missing lengths and angles • Identify angles at a point on a straight line and 1/2 a turn (total 180°) • 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.	presented in a line graph • Solve comparison problems using information presented in a line graph
Year 6	• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • 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 • Convert between miles and kilometres • Recognise that shapes with the same areas 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 cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3].		• 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 • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • 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 simple shapes on the coordinate plane, and reflect them in the axes.	• Interpret and construct pie charts and line graphs and use these to solve problems • Calculate and interpret the mean as an average.