

|  |  |  |  |  | of zero \& place value |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Identify, represent \& estimate; rounding | Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). <br> Show "finger numbers' up to 5 . <br> Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5 . <br> Experiment with their own symbols and marks as well as numerals. <br> Subitise. <br> Link the number symbol (numeral) with its cardinal number value. <br> Subitise (recognise quantities without counting) up to 5 . | 1 Identify \& represent numbers using objects \& pictorial representations including number lines, \& use the language of: equal to, more than, less than (fewer), most,least | 2 Identify, represent \& estimate numbers using different representations, including the number line | 3 Identify, represent \& estimate numbers using different representations | 4 a Identify, represent \& estimate numbers using different representations |  |  |
|  | Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). <br> Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). <br> Show 'finger numbers' up to 5 . <br> Subitise. <br> Explore the composition of numbers to 10 . <br> Automatically recall number bonds for numbers 0-10. <br> - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10 , including double facts. <br> Have a deep understanding of numbers to 10 , including the composition of each number. <br> Subitise (recognise quantities without counting) up to 5 . |  |  |  | 4 b Round any number to the nearest 10,100 or 1000 | $\begin{aligned} & 5 \text { Round any number up to } 1 \\ & 000000 \text { to the nearest } 10,100 \text {, } \\ & 1000,10000 \& 100000 \end{aligned}$ | 6 Round any whole number to a required degree of accuracy |
| Negative numbers |  |  |  |  | 4 Count backwards through zero to include negative numbers | 5 Interpret negative numbers in context, count forwards \& backwards with positive \& negative whole numbers, including across zero | 6 Use negative numbers in context, \& calculate intervals across zero |
| N6 Number problems |  |  | 2N6 Use place value \& number facts to solve problems | 3N6 Solve number problems \& practical problems involving 3N1-3 | 4N6 Solve number \& practical problems that involve 4N1-4 \& with increasingly large positive numbers | 5N6 Solve number problems \& practical problems that involve 5N1-5 | 6N6 Solve number problems \& practical problems that involve 6-6 |


| Add Subtract mentally | 1 Represent \& use number bonds \& related subtraction facts within 20 | 2 a Recall \& use addition \& subtraction facts to 20 fluently, \& derive \& use related facts up to 100 | 3 Add \& subtract numbers mentally, including: <br> - a three-digit number \& ones <br> - a three-digit number \& tens <br> - a three-digit number \& hundreds |  | 5 Add \& subtract numbers mentally with increasingly large numbers |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2 b Add \& subtract numbers mentally, i.e: <br> - a two-digit number \& ones <br> - a two-digit number \& tens <br> - two two-digit numbers <br> - adding three one-digit numbers |  |  |  |  |
| Add / subtract using written methods | 1 a Add \& subtract one-digit \& two-digit numbers to 20 , including zero | 2 Add \& subtract numbers using concrete objects \& pictorial representations, including: <br> - a two-digit number \& ones <br> - a two-digit number \& tens <br> - two two-digit numbers <br> - adding three one-digit numbers | 3 Add \& subtract numbers with up to three digits, using formal written methods of columnar addition \& subtraction | 4 Add \& subtract numbers with up to 4 digits using the formal written methods of columnar addition \& subtraction where appropriate | 5 Add \& subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition \& subtraction |  |
|  | 1 b Read, write \& interpret mathematical statements involving addition $(+)$, subtraction $(-)$ \& equals $(=)$ signs |  |  |  |  |  |
| Estimate, use inverses \& check |  | 2 Recognise \& use the inverse relationship between addition \& subtraction \& use this to check calculations \& missing number problems | 3 Estimate the answer to a calculation \& use inverse operations to check answers | 4 Estimate \& use inverse operations to check answers to a calculation | 5 Use rounding to check answers to calculations \& determine, in the context of a problem, levels of accuracy | 6 Use estimation to check answers to calculations \& determine, in the context of a problem, an appropriate degree of accuracy |
| Add / subtract to solve problems | 1 Solve one-step problems that involve addition \& subtraction, using concrete objects \& pictorial representations, \& missing number problems such as $7=\square$ -9 | 2 Solve saddition \& subtraction problems: <br> - using concrete objects \& pictorial representations, including those involving numbers, quantities \& measures <br> - applying their increasing knowledge of mental \& written methods | 3 Solve problems, including missing number problems, using number facts, place value, \& more complex addition \& subtraction | 4 Solve addition \& subtraction two-step problems in contexts, deciding which operations \& methods to use \& why | 5 Solve addition \& subtraction multi-step problems in contexts, deciding which operations \& methods to use \& why | 6 Solve addition \& subtraction multi-step problems in contexts, deciding which operations \& methods to use \& why |
| Properties of number (multiples, factors, primes, squares \& cubes) |  |  |  |  | 5 a Identify multiples \& factors, including finding all factor pairs of a number \& common factors of two numbers | 6 Identify common factors, common multiples \& prime numbers |
|  |  |  |  |  | 5 b Know \& use the vocabulary of prime numbers, prime factors \& composite (nonprime) numbers |  |
|  |  |  |  |  | 5 c Establish [if] a number up to 100 is prime \& recall prime numbers up to 19 |  |
|  |  |  |  |  | 5 d Recognise \& use square numbers \& cube numbers, \& the notation for squared $\left({ }^{2}\right) \&$ cubed ( ${ }^{3}$ ) |  |


| Strand |  |  |  |  |  |  |  |
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|  | EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Multiply / divide mentally |  |  | $\qquad$ | 3 Recall \& use multiplication \& division facts for the 3,4 \& 8 multiplication tables | 4 a Recall multiplication \& division facts for multiplication tables up to $12 \times 12$ | 5 a Multiply \& divide numbers mentally drawing upon known facts | 6 Perform mental calculations, including with mixed operations \& large numbers |
|  |  |  |  |  | 4 b Use place value, known \& derived facts to multiply \& divide mentally, including: <br> - multiplying by 0 \& 1 ; <br> - dividing by 1 ; <br> - multiplyying together three numbers | 5 b Multiply \& divide whole numbers \& those involving decimals by $10,100 \& 1000$ |  |
|  |  |  |  |  | 4 c Recognise \& use factor pairs \& commutativity in mental calculations |  |  |
| Multiply / divide using written methods |  |  | 2 Calculate mathematical statements for multiplication \& division within the multiplication tables \& write them using multiplication, division \& equals signs |  | 4 Multiply two-digit \& threedigit numbers by a one-digit number using formal written layout | 5 a 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 | 6 a Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication |
|  |  |  |  |  |  | 5 b Divide numbers up to 4 digits by a one-digit number using the formal written method of short division \& interpret remainders appropriately for the context | 6 b Divide numbers up to 4 digits by a two- digit whole number using the formal written method of long division \& interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context |
|  |  |  |  |  |  |  | 6 c Divide numbers up to 4 digits by a two-digit number using the formal written method of short division as appropriate, interpreting' remainders according to context |
| Solve problems (commutative , associative, distributive \& all four operations) |  | 1 Solve one-step problems involving multiplication \& division, by calculating the answer using concrete objects, pictorial representations \& arrays with the support of the teacher | 2 Solve problems involving multiplication \& division, using materials, arrays, repeated addition, mental methods, \& multiplication \& division facts, including problems in contexts | 3 Solve problems, including missing number problems, involving multiplication \& division, including integer scaling problems \& correspondence problems in which $n$ objects are connected to m objects | 4 Solve problems involving multiplying \& adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems \& harder correspondence problems eg. n objects are connected to m objects | 5 a Solve problems involving multiplication \& division including using their knowledge of factors \& multiples, squares \& cubes | 6 Solve problems involving addition, subtraction, multiplication \& division |
|  |  |  |  |  |  | 5 b Solve problems involving addition, subtraction, multiplication \& division \& a combination of these, including understanding the meaning of the equals sign |  |
|  |  |  |  |  |  | 5 c Solve problems involving multiplication \& division including scaling by simple fractions \& problems involving simple rates |  |
| Order of operations |  |  | 2 a Show that addition of two numbers can be done in any order (commutative) \& subtraction of one number from another cannot |  |  |  | 6 Use their knowledge of the order of operations to carry out calculations involving the four operations |
|  |  |  | 2 b Show that multiplication of two numbers can be done in any order (commutative) \& division of one number by another cannot |  |  |  |  |


| Recognise, find, write, name \& count fractions | 1 a Recognise, find \& name a half as one of two equal parts of an object, shape or quantity | 2 a Recognise, find, name \& write fractions $13,14,24 \& 34$ of a length, shape, set of objects or quantity | 3 a Count up \& down in tenths; recognise that tenths arise from dividing an object into 10 equal parts \& in dividing one-digit numbers \& quantities by 10 | 4 Count up \& down in hundredths; recognise that hundredths arise when dividing an object by a hundred \& dividing tenths by 10 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 b Recognise, find \& name a quarter as one of four equal parts of a object, shape or quantity | 2 b Write simple fractions eg $1 / 2$ of $6=3$ | 3 b Recognise, find \& write fractions of a discrete set of objects: unit fractions \& nonunit fractions with small denominators |  |  |  |
|  |  |  | 3 c Recognise \& use fractions as numbers: unit fractions \& nonunit fractions with small denominators |  |  |  |
| Equivalent fractions |  | 2 Recognise the equivalence of $2 / 4 \& 1 / 2$ | 3 Recognise \& show, using diagrams, equivalent fractions with small denominators | 4 Recognise \& show, using diagrams, families of common equivalent fractions | 5 a Recognise mixed numbers \& improper fractions \& convert from one form to the other; write mathematical statements $>1$ as a mixed number [eg: $2 / 5+4 / 5=6 / 5$ $=11 / 5]$ | 6 Use common factors to simplify fractions; use common multiples to express fractions in the same denomination |
|  |  |  |  |  | 5 b Identify name \& write equivalent fractions of a given fraction, represented visually, including tenths \& hundredths |  |
| Comparing \&ordering fractions |  |  | 3 Compare \& order unit fractions \& fractions with the same denominators |  | 5 Compare \& order fractions whose denominators are all multiples of the same number | 6 Compare \& order fractions, including fractions $>1$ |
| Add / subtra ct fractio ns |  |  | 3 Add \& subtract fractions with the same denominator within one whole [eg: $5 / 7+1 / 7$ $=6 / 7]$ | 4 Add \& subtract fractions with the same denominator | 5 Add \& subtract fractions with the same denominator \& denominators that are multiples of the same number | 6 Add \& subtract fractions with different denominators mixed numbers, using the concept of equivalent fractions |
| Multiply / divide |  |  |  |  | 5 Multiply proper fractions \& mixed numbers by whole numbers, supported by materials \& diagrams | 6 a Multiply simple pairs of proper fractions, writing the answer in its simplest form [eg: $1 / 4 \times 1 / 2=1 / 8$ ] |
|  |  |  |  |  |  | 6 b Divide proper fractions by whole numbers [eg: $1 / 3 \div 2=$ 1/6] |


| Strand | EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| Fractions / decimals equivalenc e |  |  |  |  | 4 a Recognise \& write decimal equivalents to $1 / 4,1 / 2,3 / 4$ | 5 a Read \& write decimal numbers as fractions [eg: $0.71=$ 71 100] | 6 Associate a fraction with division to calculate decimal fraction equivalents (eg: 0.375 ) for a simple fraction eg: $3 / 8$ |
|  |  |  |  |  | 4 b Recognise \& write decimal equivalents of any number of tenths or hundredths | 5 b Recognise \& use thousandths \& relate them to tenths, hundredths \& decimal equivalents |  |
| Rounding decimals |  |  |  |  | 4 Round decimals with one decimal place to the nearest whole number | 5 Round decimals with two decimal places to the nearest whole number \& to one decimal place |  |
| $\begin{aligned} & \text { Compare } \\ & \text { \& order } \\ & \text { decimals } \end{aligned}$ |  |  |  |  | 4 Compare numbers with the same number of decimal places up to two dp | 5 Read, write, order \& compare numbers with up to three decimal places |  |
| Multiply / divide decimals |  |  |  |  | 4 Find the effect of dividing a one- or two- digit number by 10 \& 100 , identifying the value of the digits in the answer as ones, tenths \& hundredths |  | 6 a Identify the value of each digit to three decimal places \& multiply \& divide numbers by 10 , $100 \& 1000$ giving answers up to three decimal places |
|  |  |  |  |  |  |  | 6 b Multiply one-digit numbers with up to two-decimal places by whole numbers |
| 0 Solve problems with fractions \& decimals |  |  |  | 30 Solve problems that involve 3 $-3$ | 4 Oa Solve problems involving increasingly harder fractions to calculate quantities \& fractions to divide quantities, including nonunit fractions where the answer is a whole number | 50 Solve problems involving numbers up to three decimal places | 60 Solve problems which require answers to be rounded to specified degrees of accuracy |
|  |  |  |  |  | 4 Ob Solve simple measure \& money problems involving fractions \& decimals to two decimal places |  |  |
| 1 Fractions / decimal / percentage equivalence |  |  |  |  |  | 51 Recognise the per cent symbol (\%) \& understand that per cent relates to 'number of parts per hundred'; write percentages as a fraction with denominator hundred, \& as a decimal |  |
| 2 Solve problems with percentage s |  |  |  |  |  | 52 Solve problems which require knowing percentage \& decimal equivalents of $1 / 2,1 / 4$, $1 / 5,2 / 5,4 / 5$ \& those fractions with a denominator of a multiple of 10 or 25 |  |
| Ratio \& proportion |  |  |  |  |  |  |  |
| Relative sizes, similarity |  |  |  |  |  |  | 6 Solve problems involving the relative sizes of two quantities, where missing values can be found by using integer multiplication \& division facts |
| Use of percentages for comparison |  |  |  |  |  |  | 6 Solve problems involving the calculation of percentages [eg: of measures such as $15 \%$ of 360] \& the use of percentages for comparison |
| Scale factors |  |  |  |  |  |  | 6 Solve problem involving similar shapes where the scale factor is known or can be found |
| Unequal sharing \& grouping |  |  |  |  |  |  | 6 Solve problems involving unequal sharing \& grouping using knowledge of fractions \& multiples |



| Strand | EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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|  | Measurement |  |  |  |  |  |  |
| Compare, describe \& order measures | Make comparisons between objects relating to size, length, weight and capacity. <br> Compare length, weight and capacity. | 1 Compare, describe \& solve practical problems for: <br> - lengths \& heights eg: long/short, longer/ shorter, tall/short, double/half <br> - mass/weight eg: heavy/light, heavier than, lighter than <br> - capacity \& volume eg: full/empty, more than, less than, half, half full, quarter <br> - time eg: quicker, slower, earlier later | 2 Compare \& order lengths, mass, volume/capacity \& record the results using >, $<\&=$ | 3 a Compare lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ) | 4 Compare different measures, including money in pounds \& pence |  |  |
| Estimate, measure \& read scales |  | 1 Measure \& begin to record the following: <br> - lengths \& heights <br> - mass/weight <br> - capacity \& volume <br> - time (hours, minutes, seconds) | 2 Choose \& use appropriate standard units to estimate \& measure length/ height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature ( ${ }^{\circ} \mathrm{C}$ ); capacity (litres/ ml) to the nearest appropriate unit using rulers, scales, thermometers \& measuring vessels | 3 a Measure lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ) | 4 Estimate different measures, including money in pounds \& pence |  |  |
| Money |  | 1 Recognise \& know the value of different denominations of coins \& notes | 2 a Recognise \& use symbols for pounds (£) \& pence (p); combine amounts to make a particular value |  |  |  |  |
|  |  |  | 2 b Find different combinations of coins that equal the same amounts of money |  |  |  |  |
| Telling time, ordering time, duration \& units of time | Solve real world mathematical problems with numbers up to 5 . | 1 a Tell the time to the hour \& half past the hour \& draw the hands on a clock face to show these times | 2 a Tell \& write the time to five minutes, including quarter past/to the hour \& draw the hands on a clock face to show these times | 3 a Tell \& write the time from an analogue clock; 12-hour clocks | 4 a Read, write \& convert time between analogue \& digital 12hour clocks |  |  |
|  | Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' | 1 b Sequence events in chronological order using language [eg: before \& after, next, first, today, yesterday, tomorrow, morning, afternoon \& evening] | 2 b Compare \& sequence intervals of time | 3 b Tell \& write the time from an analogue clock; 24-hour clocks | 4 b Read, write \& convert time between analogue \& digital 24hour clocks |  |  |
|  |  | 1 c Recognise \& use language relating to dates, including days of the week, weeks, months \& years | 2 c Know the number of minutes in an hour \& the number of hours in a day | 3 c Tell \& write the time from an analogue clock, including using Roman numerals from I to XII | 4 c Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days | 5 Solve problems involving converting between units of time |  |
|  |  |  |  | 3 d Estimate \& read time with increasing accuracy to the nearest minute; record \& compare time in terms of seconds, minutes \& hours; use vocabulary such as o'clock/a.m ./p.m., morning, afternoon, noon \& midnight |  |  |  |
|  |  |  |  | 3 e Know the number of seconds in a minute \& the number of days in each month, year \& leap year |  |  |  |
|  |  |  |  | 3 fompare durations of events, eg: calculate the time taken by particular events or tasks |  |  |  |
| Convert between metric units |  |  |  |  | 4 Convert between different units of measurement [eg: kilometre to metre; hour to minute] | 5 Convert between different units of metric measure [eg: kilometre \& metre; centimetre \& metre; centimetre \& millimetre; gram \& kilogram; litre \& millilitre] | 6 Use, read, write \& convert between standard units, converting measurements of length, mass, volume \& time from a smaller <br> unit of measure to a larger unit, <br> \& vice versa, using decimal notation of up to three dp |


| Convert metric/imper ial |  |  |  |  |  | 5 Understand \& use approximate equivalences between metric units \& common imperial units such as inches, pounds \& pints | 6 Convert between miles \& kilometres |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Perimeter, area |  |  |  | 3 Measure the perimeter of simple 2-D shapes | 4 a Measure \& calculate the perimeter of a rectilinear figure (including squares) in centimetres \& metres | 5 a Measure \& calculate the perimeter of composite rectilinear shapes in centimetres \& metres | 6 a Recognise that shapes with the same areas can have different perimeters \& vice versa |
|  |  |  |  |  | 4 b Find the area of rectilinear shapes by counting squares | 5 b Calculate \& compare the area of rectangles (including squares), \& including using standard units, square centimetres (c ) \& square metres ( ) \& estimate the area of irregular shapes | 6 b Calculate the area of parallelograms \& triangles |
|  |  |  |  |  |  |  | c Recognise when it is possible to use the formulae for the area of shapes |
| Volume |  |  |  |  |  | 5 Estimate volume [eg: using 1c blocks to build cuboids (including cubes)] \& capacity [eg: using water] | 6 a Calculate, estimate \& compare volume of cubes \& cuboids using standard units, including centimetre cubed (c ) \& cubic metres ( ), \& extending to other units[eg: $m$ \& $k$ |
|  |  |  |  |  |  |  | 6 b Recognise when it's possible to use the formulae for volume of shapes |


| Strand | EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| Solve problems (a, money; b, length; c, mass / weight; d, capacity / volume) |  |  | 2 Solve simple problems in a practical context involving addition \& subtraction of money of the same unit, including giving change | 3 a Add \& subtract amounts of money to give change, using both $£ \& p$ in practical contexts | 4 Calculate different measures, including money in pounds \& pence | 5 a Use all four operations to solve problems involving measure [money] using decimal notation, including scaling | 6 Solve problems involving the calculation \& conversion of units of measure, using decimal notation up to three decimal places where appropriate |
|  |  |  |  | 3 b Add \& subtract lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ) |  | 5 b Use all four operations to solve problems involving measure [eg:length] using decimal notation, including scaling |  |
|  |  |  |  | 3 c Add \& subtract mass (kg/g) |  | 5 c Use all four operations to solve problems involving measure [eg: mass] using decimal notation, including scaling |  |
|  |  |  |  | 3 d Add \& subtract volume / capacity ( $1 / \mathrm{ml}$ ) |  | 5 d Use all four operations to solve problems involving measure [eg:volume] using decimal notation, including scaling |  |
| Geometry - properties of shapes |  |  |  |  |  |  |  |
| Recognise \& name common shapes | 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'. <br> Select, rotate and manipulate shapes in order to develop spatial reasoning skills | 1 a Recognise \& name common 2-D shapes [eg: rectangles (including squares), circles \& triangles] | 2 a Compare \& sort common 2 <br> D shapes \& everyday objects |  |  |  |  |
|  |  | 1 b Recognise \& name common 3-D shapes [eg: cuboids (including cubes), pyramids \& spheres] | 2 b Compare \& sort common 3-D shapes \& everyday objects |  |  |  |  |
| Describe properties \& classify shapes | Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. |  | 2 a Identify \& describe the properties of 2-D shapes, including the number of sides \& line symmetry in a vertical line | 3 Identify horizontal, vertical lines \& pairs of perpendicular \& parallel lines | 4 a Compare \& classify geometric shapes, including quadrilaterals \& triangles based on their properties \& sizes | 5 a Use the properties of rectangles to deduce related facts \& find missing lengths \& angles | 6 a Compare \& classify geometric shapes based on their properties \& sizes |
|  |  |  | 2 b Identify \& describe the properties of $3-\mathrm{D}$ shapes including the number of edges, vertices \& faces |  | 4 b Identify lines of symmetry in 2-D shapes presented in different orientations | 5 b Distinguish between regular \& irregular polygons based on reasoning about equal sides \& angles |  |
|  |  |  |  |  | 4 c Complete a simple symmetric figure with respect to a specific line of symmetry |  |  |
| Draw \& make shapes \& relate 2-D to 3-D shapes (including nets) | Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. <br> Combine shapes to make new ones - an arch, a bigger triangle etc. <br> Select, rotate and manipulate shapes in order to develop spatial reasoning skills |  | 2 Identify 2-D shapes on the surface of 3-D shapes, [eg: a circle on a cylinder \& a triangle on a pyramid] | 3 a Draw 2-D shapes |  |  | 6 a Draw 2-D shapes using given dimensions \& angles |
|  |  |  |  | 3 b Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations \& describe them |  | 5 b Identify 3-D shapes including cubes \& other cuboids, from 2-D representations | 6 b Recognise \& build simple 3D shapes, including making nets |
| Angles measuring \& properties |  |  |  | 3 a Recognise that angles are a property of shape or a description of a turn | 4 Identify acute \& obtuse angles \& compare \& order angles up to two right angles by size | 5 a Know angles are measured in degrees: estimate \& compare acute, obtuse \& reflex angles | 6 a Find unknown angles in any triangles, quadrilaterals \& regular polygons |
|  |  |  |  | 3 b Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn \& four a complete turn; |  | 5 b Identify: <br> - angles at a point \& one whole turn ( $360^{\circ}$ ) <br> - angles at a point on a straight line \& 12 a turn (total | 6 b Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, \& find missing angles |


|  |  |  |  | identify whether angles are greater than or less than a right angle |  | $180^{\circ}$ ) <br> - other multiples of $90^{\circ}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 5 c Draw given angles \& measure them in degrees ( |  |
| Circles |  |  |  |  |  |  | 6 Illustrate \& name parts of circles, including radius, diameter \& circumference \& know that the diameter is twice the radius |
| Geometry - position \& direction |  |  |  |  |  |  |  |
| Patterns |  |  | 2 Order \& arrange combinations of mathematical objects in patterns \& sequences |  |  |  |  |
| Describe position, direction \& movemen t | Understand position through words alone - for example, "The bag is under the table," - with no pointing. <br> Describe a familiar route. <br> Discuss routes and locations, using words like 'in front of' and 'behind'. <br> Draw information from a simple map. <br> Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc. <br> Extend and create ABAB patterns stick, leaf, stick, leaf. <br> Notice and correct an error in a repeating pattern. <br> Continue, copy and create repeating patterns. | 1 Describe position, directions \& movement, including half, quarter \& threequarter turns | 2 Use mathematical vocabulary to describe position, direction \& movement, including movement in a straight line \& distinguishing between rotation as a turn \& in terms of right angles for quarter, half \& threequarter turns (clock-wise \& anticlockwise) |  | 4 Describe movements between positions as translations of a given unit to the left/right \& up/down | 5 Identify, describe \& represent the position of a shape following a reflection or translation, using the appropriate language, \& know that the shape has not changed | 6 Draw \& translate simple shapes on the co-ordinate plane, \& reflect them in the axes |
| Coordinates |  |  |  |  | 4 a Describe positions on a 2-D grid as co-ordinates in the first quadrant |  | 6 Describe positions on the full co- ordinate grid (all four quadrants) |
|  |  |  |  |  | 4 b Plot specified points \& draw sides to complete a given polygon |  |  |
| Statistics |  |  |  |  |  |  |  |
| Interpret \& represent data |  |  | 2 Interpret \& construct simple pictograms, tally charts, block diagrams \& simple tables | 3 Interpret \& present data using bar charts, pictograms \& tables | 4 Interpret \& present discrete \& continuous data using appropriate graphical methods, including bar charts \& time graphs | 5 Complete, read \& interpret information in tables, including timetables | 6 Interpret \& construct pie charts \& line graphs \& use these to solve problems |
| Solve problems involving data |  |  | 2 a Ask \& answer simple questions by counting the number of objects in each category \& sorting the categories by quantity | 3 Solve one-step \& two-step questions [eg: 'How many more?' \& 'How many fewer?'] using information presented in scaled bar charts, pictograms \& tables | 4 Solve comparison, sum \& difference problems using information presented in bar charts, pictograms, tables \& other graphs | 5 Solve comparison, sum \& difference problems using information presented in a line graph |  |
| $\begin{aligned} & \text { Mean } \\ & \text { averag } \\ & \text { e } \end{aligned}$ |  |  | 2 b Ask \& answer questions about totalling \& comparing categorical data |  |  |  | 6 Calculate \& interpret the mean as an average |

