



<b>Place Value: Use PV and Compare</b>	Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same!	Uses number names and symbols when comparing numbers, showing interest in large numbers  Estimates of numbers of things, showing understanding of relative size	Identify one more and one less from a given number	Recognise the place value of each digit in a two-digit number (tens, ones).  Compare and order numbers from 0 up to 100; use < > and = signs	Recognise the place value of each digit in a three-digit number (hundred, tens, ones).  Compare and order number up to 1000	Find 1000 more or less than a given number.  Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)  Order and compare numbers beyond 1000	(Read, write) order and compare numbers to at least 1,000,000 and determine the value of each digit.	(Read, write), order and compare numbers up to 10,000,000 and determine the value of each digit.
<b>Place Value: Problems and Rounding</b>				Use place value and number facts to solve problems.	Solve number problems and practical problems involving these ideas	Round any number to the nearest 10, 100 or 1000.  Solve number and practical problems that involve all of the above and with increasingly large positive numbers.	Interpret negative numbers in context  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.	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 that involve all of the above.
<b>Addition and Subtraction: Recall, Represent and, Use</b>	Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle)  Explores using a range of their own marks and signs to which they ascribe mathematical meanings	Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and + or -  Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects	Read, write and interpret mathematical statements involving addition, subtraction and equals signs.  Represent and use number bonds and related subtraction facts within 20.	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.  Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.  Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Estimate the answer to a calculation and use inverse operations to check answers	Estimate the answer to a calculation and use inverse operations to check answers	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.	

<b>Addition and Subtraction: Calculations</b>	<p>Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers</p> <p>Beginning to recognise that each counting number is one more than the one before</p>	<p>In practical activities, adds one and subtracts one with numbers to 10</p>	<p>Add and subtract one-digit and two digit numbers to 20 including zero.</p>	<p>Add and subtract numbers using concrete objects, pictorial representations and mentally, including:</p> <ul style="list-style-type: none"> <li>- A 2 digit number and ones</li> <li>- A 2 digit number and tens</li> <li>- Two 2 digit numbers</li> <li>- Adding 3 one digit numbers.</li> </ul>	<p>Add and subtract number mentally including:</p> <ul style="list-style-type: none"> <li>- A 3digit number and ones</li> <li>- A 3digit number and tens</li> <li>- A 3digit number and hundreds</li> </ul> <p>Add and subtract numbers with up to three digits using formal written methods of columnar addition and subtraction.</p>	<p>Add and subtract numbers with up to 4digits using the formal written methods of columnar addition and subtraction where appropriate.</p>	<p>Add and subtract whole number with more than 4digits, including using formal written methods (columnar addition and subtraction)</p> <p>Add and subtract numbers mentally with increasingly large numbers.</p>	<p>Perform mental calculations, including with mixed operations and large numbers.</p> <p>Use their knowledge of the order of operations to carry out calculations involving the four operations.</p>
<b>Addition and Subtraction: Solve Problems</b>	<p>Beginning to use understanding of number to solve practical problems in play and meaningful activities</p> <p>Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same</p>	<p>Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three</p>	<p>Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems such as <math>7 = ? - 9</math></p>	<p>Solve problems with addition and subtraction</p> <p>Using concrete objects and pictorial representations including those involving numbers, quantities and measures.</p> <p>Applying their increasing knowledge of mental and written methods.</p>	<p>Solve problems including missing number problems using number facts, place value and more complex addition and subtraction.</p>	<p>Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.</p>	<p>Solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why.</p> <p>Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.</p>	<p>Solve addition and subtraction multi step problems in contexts deciding which operations and methods to use and why.</p>

<p><b>Multiplication and Division: Recall, Represent, Use</b></p>				<p>Recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers.</p> <p>Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p>	<p>Recall and use multiplication and division facts for the 3,4 and 8 multiplication tables.</p>	<p>Recall multiplication and division facts for multiplication tables up to 12 x 12</p> <p>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.</p> <p>Recognise and use factor pairs and commutativity in mental calculations.</p>	<p>Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers.</p> <p>Know and use the vocabulary of prime number, prime factors and composite (non-prime) numbers.</p> <p>Establish whether a number up to 100 is prime and recall prime number up to 19</p> <p>Recognise and use square numbers and cube numbers, and the notation for squared and cubed.</p>	<p>Identify common factors, common multiples and prime numbers.</p> <p>Use estimation to check answers to calculations and determine, in the context of a problem an appropriate degree of accuracy.</p>
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Multiplication and Division: Calculations</b></p>				<p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (<math>\times</math>), division (<math>\div</math>) and equals (<math>=</math>) signs.</p>	<p>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.</p>	<p>Multiply two digit and three digit numbers by a one digit number using formal written layout.</p>	<p>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.</p> <p>Multiply and divide numbers mentally drawing upon known facts.</p> <p>Divide numbers up to 4 digits by a 1 digit number using the formal written method of short division and interpret remainders appropriately for the context.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p>	<p>Multiply multi-digit numbers up to 4 digits by a two digit whole number using the formal written method of long multiplication</p> <p>Divide numbers up to 4 digits by a 2 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.</p> <p>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.</p> <p>Perform mental calculations, including with mixed operations and large numbers.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Multiplication and Division: Solve Problems</b></p>			<p>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</p>	<p>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.</p>	<p>Solve problems including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</p>	<p>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 <math>n</math> objects are connected to <math>m</math> objects.</p>	<p>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.</p> <p>Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</p>	<p>Solve problems involving addition, subtraction, multiplication and division.</p>

<b>Multiplication and Division:</b> <i>Combined</i>							Solve problems involving addition, subtraction, multiplication and division and a combination of these including understanding of the meaning of the equals sign.	Use their knowledge of the order of operations to carry out calculations involving the four operations.
<b>Fractions: Recognise and Write</b>			<p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity.</p> <p>Recognise, find and name a quarter as one of four equal parts of an object, shape of quantity.</p>	<p>Recognise, find, name and write fractions</p> $\frac{1}{3}, \frac{1}{4}, \frac{2}{4}, \frac{3}{4} \text{ and } \frac{4}{4}$ <p>of a length, shape, set of objects or quantity.</p>	<p>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.</p> <p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</p> <p>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</p>	<p>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</p>	<p>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</p> <p>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt;1</math> as a mixed number.</p>	
<b>Fraction: Compare</b>				<p>Recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math></p>	<p>Recognise and show using diagrams, equivalent fractions with small denominators.</p> <p>Compare and order unit fractions and fractions with the same denominators.</p>	<p>Recognise and show using diagrams, families of common equivalent fractions.</p>	<p>Compare and order fractions whose denominators are all multiples of the same number</p>	<p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination</p> <p>Compare and order fractions, including fractions <math>&gt; 1</math></p>

Fractions: Calculations				Write simple fractions for example, $\frac{1}{2}$ of 6 = 3	Add and subtract fractions with the denominator within one whole (e.g. $\frac{1}{7} + \frac{1}{7} = \frac{2}{7}$ )	Add and subtract fractions with the same denominator.	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.	Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.  Multiply simple pairs of proper fractions writing the answer in its simplest form. (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ )  Divide proper fractions by whole numbers. (e.g. $\frac{1}{2} \div 2 = \frac{1}{4}$ )
Fractions: Solve Problems					Solve problems that involve all of the above.	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.		
Decimals: Recognise and Write						Recognise and write decimal equivalent of any number of tenths or hundredths  Recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$	Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$ )  Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.	Identify the value of each digit in numbers given to three decimal places.
Decimals: compare						Round decimals with one decimal place to the nearest whole number  Compare numbers with the same number of decimal places up to two decimal places.	Round decimals with two decimal places to the nearest whole number and to one decimal place.  Read, write, order and compare numbers with up to three decimal places.	

Decimals: Calculations and Problems						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.	Solve problems involving number up to three decimal places.	<p>Multiply and divide number by 10, 100 and 1000 giving answers up to three decimal places.</p> <p>Multiply one-digit numbers with up to two decimal places by whole numbers.</p> <p>Use written division methods in cases where the answer has up to two decimal places.</p> <p>Solve problems which require answers to be rounded to specified degrees of accuracy.</p>
Fractions, Decimals and Percentages						Solve simple measure and money problems involving fractions and decimals up to two decimal places.	<p>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.</p> <p>Solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}</math> and those fractions with a denominator of a multiple of 10 or 25.</p>	<p>Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for simple fraction (e.g. <math>\frac{3}{8}</math>)</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p>

Ratio and Proportion								<p>Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.</p> <p>Solve problems involving the calculation of percentages (e.g. of measures and such as 15% of 360) and the use of percentages for comparison</p> <p>Solve problems involving similar shapes where the scale factor is known or can be found.</p> <p>Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. .</p>
	Algebra			<p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.</p>	<p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculation and solve missing number problems.</p>	<p>Solve problems, including missing number problems.</p>		
				<p>Note: Although algebraic notation is not introduced until Year 6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Year 1, 2 and 3.</p>				

<p style="text-align: center;"><b>Measurement: Using Measures</b></p>	<p>In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items</p> <p>Recalls a sequence of events in everyday life and stories</p>	<p>Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy</p> <p>Becomes familiar with measuring tools in everyday experiences and play</p> <p>Is increasingly able to order and sequence events using everyday language related to time</p> <p>Beginning to experience measuring time with timers and calendars</p>	<p>Compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"> <li>- Lengths and heights (e.g. long/short, longer/shorter, tall/ short, double/ half)</li> <li>- Mass/weight (e.g. heavy/ light, heavier than, lighter than)</li> <li>- Capacity and volume (e.g. full/empty, more than, less than, half, half full, quarter).</li> <li>- Time (e.g. quicker, slower, earlier, later)</li> </ul> <p>Measure and begin to record the following:</p> <ul style="list-style-type: none"> <li>- Lengths and heights</li> <li>- Mass/weight</li> <li>- Capacity and volume</li> <li>- Time (hours, minutes, seconds).</li> </ul>	<p>Choose and use appropriate standard units to estimate and measure.</p> <p>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</p> <p>Compare and order lengths, mass, volume/ capacity and record the results using &gt;, &lt; and +</p>	<p>Measure and compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/ capacity (l/ml)</p>	<p>Convert between different unit of measure (e.g. km to m; hour to minute)</p> <p>Estimate, compare and calculate different measures.</p>	<p>Covert between different units of metric measure (e.g. km and m; cm and m; cm and mm; g and kg; l and ml)</p> <p>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</p> <p>Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.</p>	<p>Solve problems involving the calculation and conversation of units of measure, using decimal notation up to three decimal places where appropriate.</p> <p>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.</p> <p>Convert between miles and kilometres.</p>
<p style="text-align: center;"><b>Measurement: Money</b></p>			<p>Recognise and know the value of different denominations of coins and notes.</p>	<p>Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.</p> <p>Find different combinations of coins that equal the same amounts of money</p> <p>Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.</p>	<p>Add and subtract amounts of money to give change, using both £ and p in practical contexts.</p>	<p>Estimate, compare and calculate different measure, including money in pounds and pence.</p>	<p>Use all four operations to solve problems involving measure (e.g. money).</p>	

<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Measurement: Time</b></p>	<p>Recalls a sequence of events in everyday life and stories</p>	<p>Is increasingly able to order and sequence events using everyday language related to time</p> <p>Beginning to experience measuring time with timers and calendars</p>	<p>Sequence events in chronological order using language (e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening).</p> <p>Recognise and use language relating to dates, including days of the week, weeks, months and years.</p> <p>Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</p>	<p>Compare and sequence intervals of time.</p> <p>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.</p> <p>Know the number of minutes in an hour and the number of hours in a day.</p>	<p>Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12 hour and 24 hour clocks.</p> <p>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, am/pm, morning, afternoon, noon and midnight.</p> <p>Know the number of seconds in a minute and the number of days in each month, year and leap year.</p> <p>Compare duration of events (e.g. to calculate the time taken by particular events or tasks).</p>	<p>Read, write and convert time between analogue and digital 12 and 24hour clocks</p> <p>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</p>	<p>Solve problems involving converting between units of time.</p>	<p>Use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit and vice versa.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Measurement: Perimeter, Area and Volume</b></p>					<p>Measure the perimeter of simple 2D shapes</p>	<p>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</p> <p>Find the area of rectilinear shapes by counting squares.</p>	<p>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</p> <p>Calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes.</p> <p>Estimate volume (e.g. 1cm<sup>3</sup> blocks to build cuboids – including cubes – and capacity e.g. using water).</p>	<p>Recognise that shapes with the same areas can have different perimeters and vice versa.</p> <p>Recognise when it is possible to use formulae for area and volume of shapes</p> <p>Calculate the areas of parallelograms and triangles</p> <p>Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm<sup>3</sup>) and cubic metres (m<sup>3</sup>) and extending to other units (E.g. mm<sup>3</sup> and km<sup>3</sup>)</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Geometry: 2-D Shapes</b></p>	<p>Chooses items based on their shape which are appropriate for the child's purpose</p> <p>Responds to both informal language and common shape names</p> <p>Shows awareness of shape similarities and differences between objects</p> <p>Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes</p> <p>Attempts to create arches and enclosures when building, using trial and improvement to select blocks</p>	<p>Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes</p> <p>Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes</p> <p>Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build</p>	<p>Recognise and name common 2-D shapes (e.g. rectangle – including squares), circle and triangles).</p>	<p>Identify and describe the properties of 2-D shapes including the number of sides and line of symmetry in a vertical line.</p> <p>Identify 2-D shapes on the surface of 3-D shapes (e.g. a circle on a cylinder and a triangle on a pyramid)</p> <p>Compare and sort common 2-D shapes and everyday objects.</p>	<p>Draw 2-D shapes</p>	<p>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and size</p> <p>Identify lines of symmetry in 2-D shapes presented in different orientations.</p>	<p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p> <p>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</p>	<p>Draw 2-D shapes using given dimensions and angles</p> <p>Compare and classify geometric shapes based on their properties and sizes.</p> <p>Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Geometry: 3-D Shapes</b></p>	<p>Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes</p> <p>Attempts to create arches and enclosures when building, using trial and improvement to select blocks</p>	<p>Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build</p>	<p>Recognise and name common 3-D shapes (e.g. cuboids – including cubes, pyramids and spheres)</p>	<p>Recognise and name common 3-D shapes (e.g. cuboids – including cubes, pyramids and spheres)</p> <p>Compare and sort common 3-D shapes and everyday objects.</p>	<p>Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.</p>		<p>Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.</p>	<p>Recognise, describe and build simple 3-D shapes, including making nets.</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Geometry: Angles and Lines</b></p>					<p>Recognise angles as a property of shapes or a description of a turn</p> <p>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.</p> <p>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</p>	<p>Identify acute and obtuse angles and compare and order angles up to two right angles by size.</p> <p>Identify lines of symmetry in 2-D shapes presented in different orientations.</p> <p>Complete a simple symmetric figure with respect to a specific line of symmetry.</p>	<p>Know angles are measured in degrees; estimate and compare acute, obtuse and reflex angles.</p> <p>Draw given angles and measure them in degrees.</p> <p>Identify:</p> <ul style="list-style-type: none"> <li>- Angles at a point and one whole turn (total 360°)</li> <li>- Angles at a point on a straight line and half a turn (total 180°)</li> <li>- Other multiples of 90°</li> </ul>	<p>Find unknown angles in any triangles, quadrilaterals and regular polygons</p> <p>Recognise angles where they meet at a point, are on a straight line or are vertically opposite and find missing angles.</p>
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<b>Geometry: Position and Direction</b>	<p>Responds to and uses language of position and direction</p> <p>Predicts, moves and rotates objects to fit the space or create the shape they would like</p> <p><u>Pattern</u> Creates their own spatial patterns showing some organisation or regularity</p> <p>Explores and adds to simple linear patterns of two or three repeating items, e.g. stick, leaf (AB) or stick, leaf, stone (ABC)</p> <p>Joins in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next</p>	<p>Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints</p> <p>Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning)</p> <p>May enjoy making simple maps of familiar and imaginative environments, with landmarks</p> <p><u>Pattern</u> Spots patterns in the environment, beginning to identify the pattern "rule"</p> <p>Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat</p>	<p>Describe position, direction and movement, including whole, half, quarter and three-quarter turns.</p>	<p>Order and arrange combinations of mathematical objects in patterns and sequences</p> <p>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)</p>		<p>Describe positions on a 2-D grid as coordinates in the first quadrant</p> <p>Describe movements between positions as translations of a given unit to the left/right and up/down</p> <p>Plot specified points and draw sides to complete a given polygon.</p>	<p>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.</p>	<p>Describe position on the full coordinate grid (all four quadrants)</p> <p>Draw and translate simple shapes on the coordinate plane and reflect them in the axes.</p>
	<b>Statistics: Present and Interpret</b>				<p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p>	<p>Interpret and present data using bar charts, pictograms and tables.</p>	<p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</p>	<p>Complete, read and interpret information in tables, including timetables.</p>

<b>Statistics: Solve Problems</b>				<p>Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p> <p>Ask and answer questions about totalling and comparing categorical data.</p>	<p>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.</p>	<p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p>	<p>Solve comparison, sum and difference problems using information presented in a line graph.</p>	<p>Calculate and interpret the mean as an average.</p>
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