

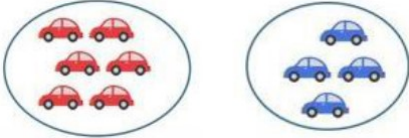
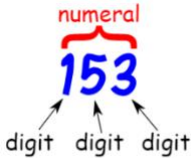
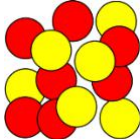
# Mathematical Vocabulary

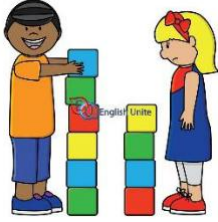
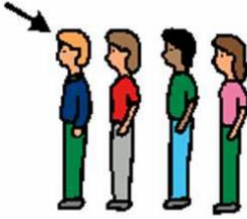
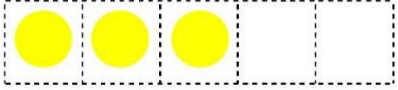
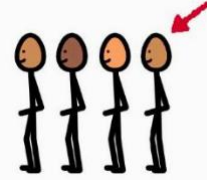

## Early Years


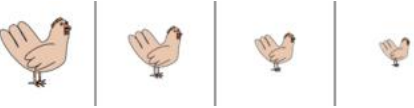





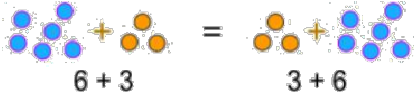
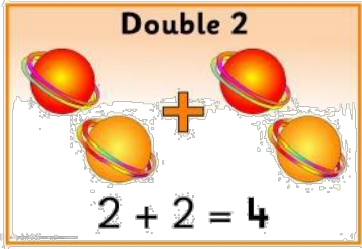


### Mathematics vocabulary list EYFS

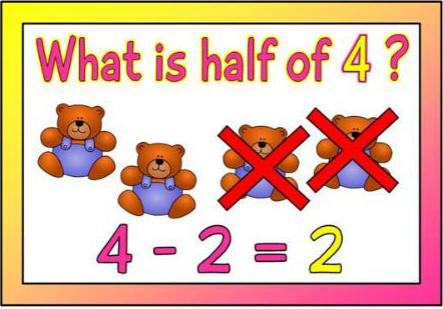
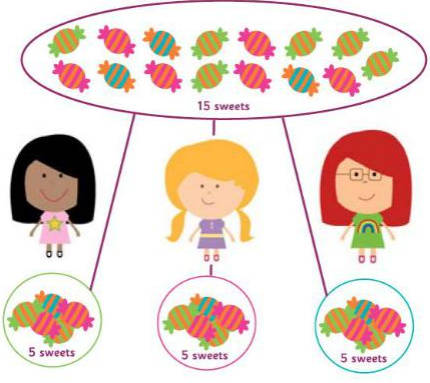
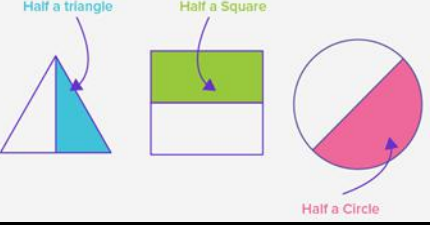
Listed below are the key mathematical terms your child will learn this year. This is the minimum we expect children to learn; however, we know children are curious and will undoubtedly want to learn more and we encourage this.


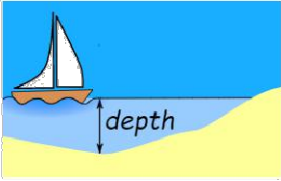

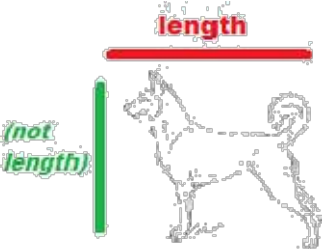
| <u>Vocabulary</u>                    | <u>Definition</u>   | <u>Example</u>   |
|--------------------------------------|---|--|
| <b><i>Number and Place Value</i></b> |   |  |
| Before                               | In front of or prior to.  | <i>'The number 3 comes <b>before</b> 5 on the number track.'</i>   |
| Between                              | A preposition that indicates location of an object with reference to two other objects, to the left of the first and the right of the second. | <i>'4 is <b>between</b> 3 and 5 on our number track.'</i>  |
| Compare                              | Look for similarities and/or differences between at least two objects or sets.  | <i>'Let me <b>compare</b> these two sets – there are more red cars than blue cars.'</i><br> |
| Count                                | Assigning one number name to each of a set of objects to determine how many there are.  | <i>'I <b>counted</b> the children in the group – there are four so we will need four pencils.'</i>   |
| Digit                                | A digit is a single symbol used to make numerals.   |    |
| Estimate                             | To find a value that is close enough to the right answer, usually with some thought or calculation involved.                                  | <i>'Can you <b>estimate</b> how many counters are below?'</i><br>                          |

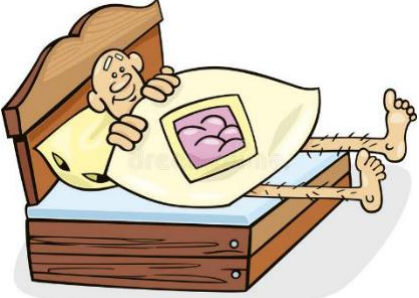


|                         |  |  |
|-------------------------|--|--|
| Fewer                   | A lesser amount – used when counting discrete objects, i.e. countable objects such as, pens, teddies, counters, etc. | <p>'The girl has <b>fewer</b> blocks than the boy'.</p>        |
| First                   | Before anything else.  | <p>'Fred is the <b>first</b> person in line'.</p>              |
| First, second, third... | <b>'First, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth'.</b>                                  |  |
| Greater                 | When a quantity or number is bigger or larger than the second or rest quantities or numbers.                         | '10 is <b>greater</b> than 8'.   |
| How many?               | What number.   | <p>'<b>How many</b> counters are there on the 5 frame?'</p>  |
| Is the same as...       | Is equal to  | '4 is <b>the same as</b> 3 + 1. It is also <b>the same as</b> 2 + 2'   |
| Largest, greatest       | The most in a set.   | 'The <b>greatest</b> number in the following set, 6, 3, 9 is 9'.   |
| Last                    | Comes after all others in time or order.   | <p>'Rory is the <b>last</b> person in the line'.</p>         |
| Less                    | A smaller amount or not as much.   | 'I have 9p and you have 3p. You have <b>less</b> money than me'.   |
| Next                    | Comes immediately after the present one in order.  | <p>'The <b>next</b> shape in my pattern is a square'.</p>    |

|                             |  |  |
|-----------------------------|--|--|
| Number                      | A count or measurement.  |    |
| One, two, three...to twenty | <i>'One, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty.'</i>   |  |
| Ones<br>Tens                | <i>'Numbers, such as 12, have two digits. Each digit is a different place value. The left digit is the <b>tens</b>' place. It tells you that there is one <b>ten</b>. The last or right digit is the <b>ones</b>' place which is 2 in this example.'</i> |  |
| Order                       | Describes the placement of items according to given criteria or in a pattern. As a verb, to place items according to given criteria or in a pattern.   | <i>'I have <b>ordered</b> the chickens from biggest to smallest.'</i><br>                      |
| Pair                        | A set of two things used together.   | <i>'Socks come in a <b>pair</b> – one for each foot.'</i><br>                                |
| Pattern                     | A systematic arrangement of numbers, shapes or other elements according to a rule.   | <i>'The <b>pattern</b> is red, blue, red, blue, red blue.'</i><br>                           |
| Subitise                    | Instantly recognising the number of objects in a small group, without counting.  | <i>'There are 9 dots here. I worked this out without counting. I <b>subitised</b>'.</i><br> |
| Zero                        | The number before one. It is neither positive nor negative.  | <i>'<b>Zero</b> comes before one on the number track.'</i>   |


| <b>Addition and subtraction</b> |   |  |
|---------------------------------|---|--|
| Add                             | Carry out the process of addition.  | 'I can <b>add</b> two numbers together to find a total.<br>$1+2=3$ '   |
| Addition                        | The operation to combine at least two numbers or quantities to form a further number or quantity, the sum or total. Addition is the inverse operation to subtraction. | 'eight plus three is equal to eleven. This is an <b>addition</b> question.'<br><br>Addition: $8 + 3 = 11$  |
| Altogether                      | In total.   | 'That will be £2 <b>altogether</b> please.'  |
| Commutative                     | Either of two laws relating to number operations of addition and multiplication, stated symbolically: $a + b = b + a$ and $ab = ba$ .                                 | '6 + 3 equals the same as 3 + 6. This is the <b>commutative law</b> .'<br><br> |
| Double                          | To multiply by two or add a value to itself.  | 'Four is <b>double</b> two.'<br><br>   |
| Less                            | A smaller amount or not as much.  | 'I have two footballs. You have 10 footballs. I have <b>less</b> .'<br><br>  |
| More                            | A greater amount.   | 'I have twenty apples and you have five. I have <b>more</b> .'<br><br>       |
| Sum                             | The result of one or more additions.  | 'The <b>sum</b> of five and three is eight.'   |
| Take away                       | Used in the reduction structure of subtraction. To remove a number of items from a set.   | 'He ate three of the sweets so we need to <b>take away</b> three counters.'  |

|                                    |  |  |
|------------------------------------|--|--|
| Total                              | The sum found by adding.   | 'There are a <b>total</b> of five people at this table.'   |
| <b>Multiplication and division</b> |  |  |
| Doubling                           | To multiply by two or add a value to itself.   | 'Ten is <b>double</b> five.'   |
| Halving                            | One of two equal parts of a shape, quantity or object.                                     |    |
| Number patterns                    | A systematic arrangement of numbers, shapes or other elements according to a rule.         | 'The <b>number pattern</b> is 2, 4, 6, 8, 10.'   |
| Sharing                            | To distribute fairly between a given number of recipients. This is one model for division. | <p>'I will <b>share</b> the crayons equally between the people at the table.'</p>  |
| <b>Fractions</b>                   |  |  |
| Half                               | Either of two equal or corresponding parts into which something is or can be divided.      |    |
| Parts of a whole                   | A ratio or a fraction that represents a relationship between a part and its whole.         | 'A cake has been split into two <b>parts</b> . One part has been eaten.'   |




| <b>Measurement</b> |  |  |
|--------------------|--|--|
| Compare            | Look for similarities and/or differences between at least two objects or sets. | 'I can <b>compare</b> these two sets – this set has more.'   |
| Guess Estimate     | An estimate or conclusion  | 'My <b>guess</b> is about 11'  |
| Measure            | To find the size of something in a given unit.                                 | 'How might we <b>measure</b> how much sand there is in the sand tray?'<br> |
| Size               | An element's overall dimensions or magnitude.                                  | 'The <b>size</b> of my shoe is smaller than my teacher's.'   |
| <b>Length</b>      |  |  |
| Depth              | The distance between the nearest end and farthest end of an object.            | 'Can you measure the <b>depth</b> of this box?'<br>                      |
| Height             | The vertical distance from the top to the base of the object.                  | 'The <b>height</b> of this object is 12 cubes.'<br>                      |
| Length             | A linear measurement.  | 'The <b>length</b> of my snake is shorter than yours.'<br>               |

|               |  |   |
|---------------|--|---|
| Long          | An adjective used to describe length.  | 'I have a <b>long</b> piece of string.'   |
| Short         | An adjective used to describe length.  | 'This bed is too <b>short</b> .'  |
|               |  |   |
| Tall          | Measuring a specific distance from top to bottom.  | 'The children are not as <b>tall</b> as the teacher.'   |
|               |  |   |
| Width         | The measurement of the distance of a side of an object.  | 'The <b>width</b> of this table is...'  |
| <b>Weight</b> |  |   |
| Balances      | A measuring tool used to weigh objects. It has two dishes hanging on a bar. Both dishes will be level when the contents weigh the same. Also, as a verb, indicates equivalence and equality. | 'The objects in the balance are unequal in weight because the dish on the right side is lower down than the dish on the left side. The two objects <b>balance</b> which means they have the same mass.' |
| Heavy         | Having a weight that is greater than that of another object.   | 'That box is <b>heavy</b> .'  |
|               |  |   |






|        |   |   |
|--------|---|---|
| Light  | Having a weight that is less than that of another object. | 'The banana in the monkey's hand is <b>light</b> .'   |
|        |   | light<br> |
| Scales | An instrument for weighing.                               | 'Can you use the <b>scales</b> to weigh the cubes?'   |
| Weigh  | Find out how heavy something is.                          | 'I have <b>weighed</b> the Lego model'  |
| Weight | The force exerted on an object by gravity.                | 'The <b>weight</b> of this book is heavier than the pencil.'                                |

### Capacity and volume

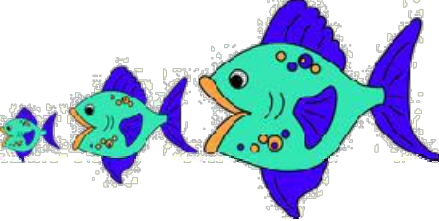





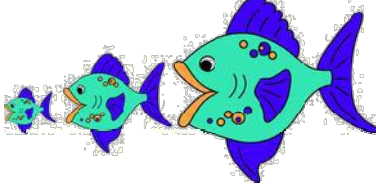
|           |  |   |
|-----------|--|---|
| Container | An object for holding or transporting something.                   | 'What <b>container</b> will hold the most water?'                                     |
|           |  |   |
| Empty     | Containing nothing. Most commonly used in the context of measures  | 'There is no more water left in the jug – it is <b>empty</b> .'                       |
|           |  |   |
| Full      | Contains/holds as much or as many as possible; has no empty space. | 'The juice carton is not <b>full</b> because I drank some.'                           |
|           |  |  |


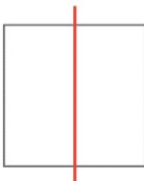
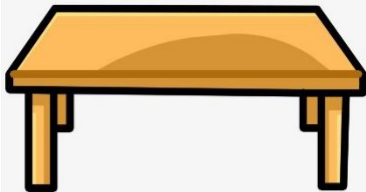





| <i>Time</i>                           |   |   |
|---------------------------------------|---|---|
| Afternoon                             | The time from noon or lunchtime to evening.   | 'We are going to the forest this <b>afternoon.</b> '                    |
| Days of the week, Monday, Tuesday ... | <b>'Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.'</b>                  |   |
| Early                                 | Near the beginning of a particular time or period.  | 'You have arrived <b>early</b> today.'                                  |
| Evening                               | The period of time at the end of the day, usually from about 6 p.m. to bedtime.           | 'You go to bed in the <b>evening.</b> '                                 |
| First                                 | Comes before all others in time or order.   | 'The <b>first</b> thing we are going to do today is to wash our hands'. |
| Hour                                  | A period of time equivalent to 60 minutes.  | 'We are having lunch in 1 <b>hour.</b> '                                |
| Last                                  | Comes after all others in time or order.  | 'The <b>last</b> thing we are going to do today is read a story.'       |
| Late                                  | Doing something or taking place after the expected, proper, or usual time.                | 'The teacher has arrived <b>later</b> than expected.'                   |
| Morning                               | The period of time between midnight and noon.   | 'Good <b>morning</b> everyone'.   |
| Night                                 | The period from sunset to sunrise in each twenty-four hours.                              | 'You can normally see the moon in the <b>night.</b> '                   |
| O'clock                               | <b>'The time now is 1 o'clock.'</b>   |   |
| Soon                                  | In or after a short time.   | 'We are doing PE <b>soon.</b> '   |
| Time                                  | Related to duration. Measured in seconds, minutes, hours, days, weeks, months, years etc. | 'After lunch it will be <b>time</b> for P.E.'                           |
| Today                                 | The present day.  | 'The theatre are coming <b>today.</b> '                                 |
| Tomorrow                              | The next day.   | <b>'Tomorrow,</b> the weather will be snowy.'                           |
| Week                                  | A period of seven days.   | 'Next <b>week,</b> we will be learning about farm animals.'             |
| Yesterday                             | The previous day.   | 'Do you remember what we did <b>yesterday?</b> '                        |





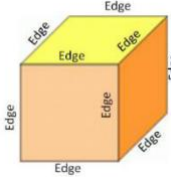
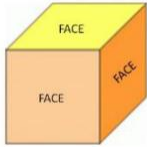
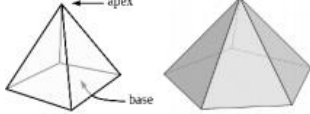
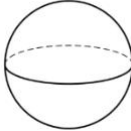
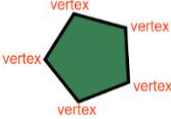
**Money**

|             |  |  |
|-------------|--|--|
| Buy         | Obtain in exchange for payment   | <i>'How much is that item to <b>buy</b>??'</i>   |
| Coin        | A flat disc or piece of metal with an official stamp, used as money      | <i>'I have 5 <b>coins</b> here. I wonder how much I can buy from the shop...?'</i>   |
| Money       | Any object that is generally accepted as payment for goods and services. | <i>'That is a lot of <b>money</b>!'</i><br>              |
| Pay         | Give (someone) money that is due for work done, goods received.          | <i>'How much have I got to <b>pay</b> you for that?'</i>   |
| Penny/pence | A small sum of money.  | <i>'That will be 3 <b>pence</b> please'.</i><br>       |
| Pound       | Equal to 100 pence.  | <i>'The cake will be one <b>pound</b> please'.</i><br> |
| Price       | The amount an item costs.  | <i>'What is the <b>price</b> of that please?'</i>  |
| Sell        | Give or hand over (something) in exchange for money.                     | <i>'I am not going to <b>sell</b> you this today'.</i>   |
| Spend       | Give (money) to pay for goods, services                                  | <i>'How much money do you have to <b>spend</b>??'</i>  |

**Properties of shape**

|                   |   |   |
|-------------------|---|---|
| Bigger, Larger    | Of considerable size.   | 'Which of these fish is the <b>biggest</b> ?'<br>                       |
| Curved            | A non-plane surface of a 3-D shape.<br><br>Both cones and cylinders have curved surfaces.                           | 'This line is <b>curved</b> .'<br>                                      |
| Flat              | A level surface.  | 'The table has a <b>flat</b> rectangular surface.'  |
| Hollow            | Having a hole or empty space inside.  | 'This box is <b>hollow</b> .'<br>                                      |
| Pattern           | A systematic arrangement of numbers, shapes or other elements according to a rule.                                  | 'The <b>pattern</b> below is square, triangle, square, triangle.'<br> |
| Repeating pattern | A design for decorating a surface composed of a number of elements (motifs) arranged in a regular or formal manner. | 'Circle, rectangle, circle, rectangle...this is a <b>repeating pattern</b> of shapes'.  |
| Round             | A circular piece of something.  | 'This circle is <b>round</b> .'<br>                                   |
| Shape             | A geometric figure such as a square, triangle, or rectangle.  | 'Which of these <b>shapes</b> has four sides?'<br>                    |
| Size              | An element's overall dimensions or magnitude.   | 'The <b>size</b> of my shoe is smaller than my teacher's.'  |
| Smaller           | Of a size that is less than normal or usual.  | 'Which of these fish is the <b>smallest</b> ?'<br>                    |

|                 |   |  |
|-----------------|---|--|
| Solid           | Having three dimensions.  | 'This cube is a <b>solid</b> shape.'<br>                                   |
| Sort            | Arrange systematically in groups.   | 'How could we <b>sort</b> these shapes?'   |
| Straight        | A line or movement uniform in direction, without bends or curves.   | 'The edges of the table are <b>straight</b> .'   |
| Symmetrical     | A balanced and a proportionate similarity which is found in two halves of an object, that is, one-half is the mirror image of the other half. | 'How can we see if this square is <b>symmetrical</b> ? Let's fold it.'<br> |
| <b>2d shape</b> |   |  |
| Corner          | A point where two or more lines meet. The correct mathematical term is vertex (vertices).   | 'The table has four <b>corners</b> (vertices).'<br>                      |
| Circle          | The name of a 2-D shape. A circle has a curved side.  |    |
| Rectangle       | A quadrilateral with four right angles.   |    |
| Side            | A straight line that forms part of the boundary of a shape.   | 'This shape has four straight <b>sides</b> .'<br>                       |
| Square          | A quadrilateral with four equal length sides and four right angles.   |   |
| Triangle        | A polygon with three sides.   |    |

| <b>3d shape</b>  |  |   |
|------------------|--|---|
| Cone             | A 3-D shape with one circular plane face, which tapers to an apex.   |   |
| Cube             | A 3-D shape with six identical square faces.   |   |
| Cuboid           | A 3-D shape with six rectangular faces.  |   |
| Cylinder         | A 3-D shape with two circular faces joined by a curved surface.  |   |
| Edge             | A line segment joining two vertices of a plane figure (2-D shape) and the intersection of two plane faces (in a 3-D shape).                            | 'A triangle has three <b>edges</b> and a cube has 12 <b>edges</b> .'<br> |
| Face             | One of the plane surfaces of a solid shape.  | 'A cube has six <b>faces</b> .'<br>                                     |
| Pyramid          | A 3-D shape with a polygonal base and otherwise triangular faces, which form edges with the base, and which meet at an apex.                           |   |
| Sphere           | A 3-D shape with a continuous surface, which is at all points equidistant from its centre. It has an infinite number of flat faces and straight edges. | 'A bowling ball is a <b>sphere</b> .'<br>                               |
| Vertex, vertices | The point at which two or more lines intersect.  | 'This shape has five <b>vertices</b> .'<br>                             |

**Position and direction**

Above

'The ball is **above** the box'.



Across

'Walk **across** the road'.



Along

'The hare ran **alongside** the tortoise'.



Apart

'Move **apart** from each other'



Around




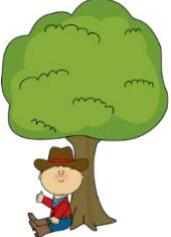


'The plane flew **around** the world'.



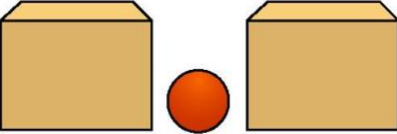





Away from




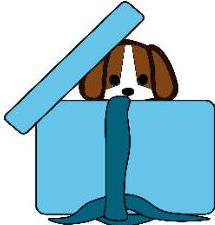


'If you see a snake, run **away from** it'.



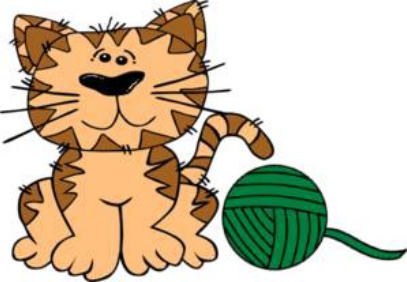
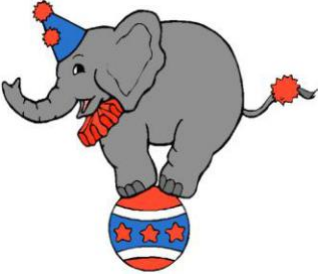





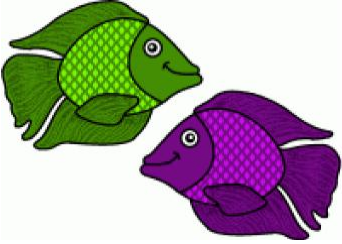


|           |   |
|-----------|---|
| Back      | <p>'Please come in through the <b>back</b> of the house'.</p>  |
| Backwards | <p>'Move <b>backwards</b> until you reach the wall'.</p>       |
| Behind    | <p>'The cat was <b>behind</b> the box'.</p>                   |
| Below     | <p>'<b>Below</b> the tree, sat a little boy'.</p>            |
| Bend      | <p>'<b>Bend</b> over and touch your toes'.</p>               |
| Beside    | <p>'The cat sat <b>beside</b> the chair'.</p>                |












|                  |   |
|------------------|---|
| <p>Between</p>   | <p>'The red ball is <b>between</b> the two cardboard boxes'.</p>         |
| <p>Bottom</p>    | <p>'The little girl waved from the <b>bottom</b> of the classroom'.</p>  |
| <p>Close</p>     | <p>'The children ran to the playground <b>close</b> together'.</p>      |
| <p>Corner</p>    | <p>'Around the <b>corner</b> is the library'</p>                       |
| <p>Direction</p> | <p>'Which <b>direction</b> do you think the postman needs to take next?'</p>  |
| <p>Down</p>      | <p>'The girl slid <b>down</b> the slide'.</p>                          |
| <p>Far</p>       | <p>'Birmingham is quite <b>far</b> away from our school.'</p>   |
| <p>Forwards</p>  | <p>'The girl walked <b>forward</b> through the corridor'.</p>          |

|           |   |   |
|-----------|---|---|
| From      | <p>'The man moved the boxes <b>from</b> the van to the school.'</p>  |   |
| Front     | <p>'The teacher was at the <b>front</b> of the class'.</p>           |   |
| Half turn | <p>A 180 degree rotation, i.e. <math>\frac{1}{2}</math> of a 360 degree or 'full' turn.</p>   |  |
| In        | <p>'The dog hid <b>in</b> the box'.</p>                            |   |
| Inside    | <p>'The two boys slept <b>inside</b> their tents'.</p>             |   |
| Left      | <p>'The green car is to the <b>left</b> of the right car'.</p>    |   |

|                 |   |
|-----------------|---|
| <p>Middle</p>   | <p>'The archer hit the <b>middle</b> of the target'.</p>         |
| <p>Movement</p> | <p>'Let's stretch our arms really high in the air. Let's make big <b>movements</b>'.</p>  |
| <p>Near</p>     | <p>'The bear was near the tree'.</p>                             |
| <p>Next to</p>  | <p>'The cat sat <b>next to</b> the ball of string'.</p>         |
| <p>On</p>       | <p>'The elephant balanced carefully <b>on</b> the ball'.</p>   |
| <p>Opposite</p> | <p>'The man was on the <b>opposite</b> side of the wall'.</p>  |

|                 |   |  |
|-----------------|---|--|
| <p>Outside</p>  | <p><i>'The children played skipping <b>outside</b>'.</i></p>                 |  |
| <p>Over</p>     | <p><i>'The horse jumped <b>over</b> the fence'.</i></p>                      |  |
| <p>Position</p> | <p>Location, expressed either descriptively using positional prepositions, or specified by coordinates.</p>   | <p><i>'The book is on the table. The clock is hanging above the board. This is their <b>position</b>'.</i></p> |
| <p>Right</p>    | <p><i>'The purple fish is to the <b>right</b> of the green fish'.</i></p>  |  |
| <p>Roll</p>     | <p><i>'Roll the ball along the floor'.</i></p>                             |  |
| <p>Sideways</p> | <p><i>'Tilt your body <b>sideways</b>. Can you still balance?'</i></p>     |  |

|         |   |
|---------|---|
| Slide   | <p><i>'In the dance, we need to <b>slide</b> to the right'.</i></p>          |
| Stretch | <p><i>'Before any exercise, we must <b>stretch</b> our muscles'.</i></p>     |
| Through | <p><i>'Chuck the ball <b>through</b> the hoop and into the net'.</i></p>    |
| Top     | <p><i>'The explorer climbed to the <b>top</b> of the mountain'.</i></p>    |
| Towards | <p><i>'The boy ran <b>towards</b> his mum at the end of the day'.</i></p>  |

|                   |  |  |
|-------------------|--|--|
| Turn              | 'The two girls were dancing and <b>turned</b> on the spot'.                            |  |
|                   |       |  |
| Under             | 'The boy hid <b>under</b> his blanket and read his book'.                              |  |
|                   |       |  |
| Up                | 'You can climb <b>up</b> the tree as long as an adult helps you'.                      |  |
|                   |     |  |
| Whole turn        | 360 degrees turn.  |              |
| <b>Statistics</b> |  |  |
| Count             | Assigning one number name to each of a set of objects to determine how many there are. | 'I <b>counted</b> the children in the group – there are four so we will need four pencils.'      |
| Group             | To make equal size groups.   | 'I will <b>group</b> the crayons equally so that each person gets two.'                          |
| Set               | A defined group of objects, numbers or other elements.                                 | 'I have placed all the purple counters in this <b>set</b> because they are all the same colour'. |
| Sort              | To organise a set of elements into specified categories.                               | 'I will <b>sort</b> these objects based on their size.'  |