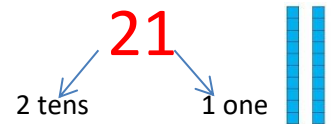


*By the end of year 2, children will solve problems with one or a small number of simple steps. Children will discuss their understanding and begin to explain their thinking using appropriate mathematical vocabulary, hands-on resources and different ways of recording. They will begin to show more exploration by asking simple questions relevant to the problem and begin to suggest ways of solving them.*

## Number - Counting and understanding numbers

Children will develop their understanding of place value of numbers to at least 100 and apply this when ordering and comparing numbers. Children will count fluently forwards and backwards up to and beyond 100 and will be able to count in multiples of 2, 3, 5 and 10. They will also be able to count in tens from any given number. They will use hands-on resources to help them understand and apply their knowledge of place value in two digit numbers, representing the numbers in a variety of different ways.

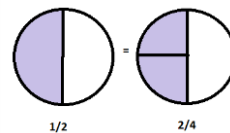


## Number-Calculating

Children learn that addition and multiplication number sentences can be re-ordered and the answer remains the same (commutativity) such as  $9+5+1=5+1+9$ . They learn that this is not the case with subtraction and division. They solve a variety of problems using mental and written calculations for  $+$ ,  $-$ ,  $\times$ ,  $\div$  in practical contexts. These methods will include partitioning which is where the number is broken up into more manageable parts (e.g.  $64 = 60 + 4$  or  $50 + 14$ ), re-ordering (e.g. moving the larger number to the beginning of the number sentence when adding several small numbers) and using a number line. Children will know and be able to recall the 2, 5 and 10 times tables, as well as the matching division facts ( $4 \times 5 = 20$ ,  $20 \div 5 = 4$ ). They apply their knowledge of addition and subtraction facts to 20 and can use these to work out facts up to 100.

## Number- Fractions

Children will develop their understanding of fractions and link it to division. They explore this concept using pictures, images and hands-on resources. They will solve problems involving fractions (e.g. find  $\frac{1}{3}$  of the hexagon or  $\frac{1}{4}$  of the marbles) and record what they have done. They will understand that some have the same value (equivalent) e.g.  $\frac{1}{2} = \frac{2}{4}$ .



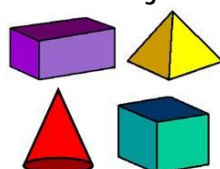
## Measurement

Children will estimate, choose, use and compare a variety of measurements for length, mass, temperature, capacity, time and money. By the end of year 2, they will use measuring apparatus such as rulers accurately. They will use their knowledge of measurement to solve problems (e.g. how many ways to make 50p). They extend their understanding of time to tell the time to 15 minutes. Some will begin to understand telling the time in 5 minute intervals. They will know key time related facts (60 minutes in an hour, 24 hours in a day) and relate this to their everyday life.



## Geometry

Children will identify, describe, compare and sort common 2-D and 3-D shapes according to their properties (sides, vertices, edges, faces) and apply this knowledge to solve simple problems. They develop their understanding by finding examples of 3-D shapes in the real world and exploring the 2-D shapes that can be found on The faces of the 3d shapes (e.g. a circle is one of the faces on a cylinder). Children begin to describe position, direction and movement in a range of different situations, including understanding rotation (turning through right angles clockwise and anti-clockwise). They use their knowledge of shape in patterns and sequences.



## Statistics

Children sort and compare information, communicating findings by asking and answering questions. They will draw simple pictograms, tally charts and tables.

Vocabulary partition, sum, difference, commutative, place value, times, divide, array, inverse, third, three quarters, two quarters, equivalence, cm/m, kg/g, 'c , l/ml, pounds and pence, quarter to/past (time to 5 minutes), symmetry, turns, rotation, right angle, clockwise, anti-clockwise

## Village Infants Year 2 Long Term Maths Planning - Number

Village Infants Year 2 Long Term Maths Planning - Number						
	1A	1B	2A	2B	3A	3B
<b>Counting:</b> In steps of 2,3,5 from 0 Count in 10s from any number forwards and backwards	Count in steps of 2,5, and 10	→	count in steps of 3			
<b>Place Value:</b> Recognise place value of 2 digit numbers – 100 Zero as place holder Compare, order numbers using $> < =$ Number Line – with and without numbers 100 Sq Partitioning method	Recognise the place value of each digit in 2 digit numbers					→
<b>Representing Number:</b> Statements using $> < =$ Read/Write in numerals and words - 100	Read and write numbers to 100 in numerals and words  $<, >, =$	compare and order numbers to 100				
<b>Number Facts +/-</b> Use NF to solve problems Recall and use NF to 20 fluently, and derive and use related facts to 100 eg $3+7=10$ , $30+70=100$	recall and use + and - facts to 20  use place value and number facts to solve problems	derive and use related facts to 100				→
<b>Addition/Subtraction</b> T-tens, O-ones Add and subtract using concrete/pictorial representations and mentally TO & O TO & T TO & TO O & O & O Recognise commutative law with + but not – Recognise and use the inverse relationship between + and – and use to check calculations and solve missing number problems	two digit and 1s  two digit and 10s  adding 3 one digit numbers	commutative  two 2 digit numbers  Solve problems	recognise inverse relationships (+/-)	apply increasing knowledge of mental and written methods		→

<p>Partition numbers in different ways eg <math>23 = 20+3</math>  <math>23 = 10+13</math></p> <p>Applying increasing knowledge of mental and written methods.</p> <p><b>Problems +/-</b></p> <p>Using concrete, pictorial and abstract representations</p> <p>Recognise and use the inverse of + and – and use this to check calculations and solve missing number problems</p>						
<p><b>Number Facts x/÷</b></p> <p>Know tables for 2,5,10</p> <p>Recall and use number sentences/facts x/÷ for 2,5 and 10</p> <p>Odd /even numbers</p>		<p>recognise odd and even numbers</p>	<p>2 times table</p> <p>Recall facts</p>	<p>10 times table</p>	<p>5 times table</p>	<p>2,5,10 times tables. 3 times tables.</p>
<p><b>Multiplication/Division</b></p> <p>Calculate mathematical statements for x/÷</p> <p>Recognise commutative law of x and not ÷</p> <p><b>Problems x/÷</b></p> <p>Solve problems using concrete resources, arrays, repeated addition, mental methods, x/÷ facts</p>		<p>simple <math>x \div</math></p> <p>Solve problems</p>		<p>recognise inverse relationships (x/÷)</p> <p>x and ÷</p>		
<p><b>Recognising Fractions:</b></p> <p>Recognise, find, name and write fractions for <math>1/3</math> <math>1/4</math> , <math>2/4</math>, <math>3/4</math> of a length, shape, set of objects or quantity</p> <p>Know that <math>2/4 = 1/2</math></p>		<p>recognise, find and name fractions</p> <p>fractions of shape</p>	<p>Fractions of a number</p>	<p>recognise equivalence eg <math>1/2=2/4</math></p> <p>fractions of length</p>		<p>→</p>

**Village Infants      Year 2 Long Term Maths Planning – Shape Space and Measure**

<p><b>Money:</b> Recognise and use £ / p Combine amounts to make a particular value Use different combinations of coins to make same value Problem solving using +/- include giving change</p>		<p>Recognise amounts</p> <p>Problem solving</p>	<p>Give change</p>			<p>→</p>
<p><b>Time:</b> Compare and sequence intervals of time Tell and write time to 5 minutes, inc ¼ past/to the hour – draw hands on clock face Know mins/hr and hrs/day</p>	<p>Hour / half past</p> <p>Know mins/hr hrs/day</p>	<p>Quarter past / to</p>	<p>Compare and sequence intervals of time (data handling) 5 minute interval</p>			<p>→</p>
<p><b>Measures</b> Choose and use appropriate standard units to estimate and measure Length/height [m/cm] Mass [kg/g] Temperature [°C] Capacity [l/ml] Compare and order length, mass, capacity and order using &lt;&gt; =</p>	<p>measure length / height (&lt;,&gt; =)</p>	<p>mass (&lt;,&gt; =)</p>	<p>volume/ capacity (&lt;,&gt; =)</p>	<p>temperature (&lt;,&gt; =)</p>		
<p><b>Shape</b> Vertices, edges, faces symmetry <b>Properties of 2D Shape</b> Identify and describe the properties of 2D shapes inc number of sides and line of symmetry in a vertical line Compare and sort 2D shapes inc everyday objects <b>Properties of 3D shapes</b> Identify 2D shapes/faces on 3D shapes Compare and sort common 3D shapes – inc everyday objects <b>Angles</b> Right angles-turns/time</p>		<p>2D shapes</p> <p>symmetry</p>	<p>3D</p>	<p>2D + angles</p>	<p>3D</p>	

<p><b>Position &amp; Direction</b>  Order and arrange combinations of mathematical objects in patterns and sequences  Use mathematical vocabulary to describe position, direction and movement in a straight line  Understand the terms clockwise and anti-clockwise  Use programmable robots giving directions in right angle turns</p>	<p>Sequence numbers</p>	<p>Sequence shapes</p>		<p>Rotate shapes   Clockwise / anti-clockwise   Programmable robots-link to coding</p>		
<p><b>Statistics</b>  Construct simple pictograms, tally charts, block diagrams and tables  Draw pictograms where one symbol represents multiple units  Interpret simple pictograms, tally charts, block diagrams and tables in a variety of contexts  Ask and answer simple questions by counting the number of objects in a category and sorting the categories by totalling and comparing categorical data</p>	<p>pictograms   block graphs</p>	<p>tally chart tables (venn / carroll)</p>				