

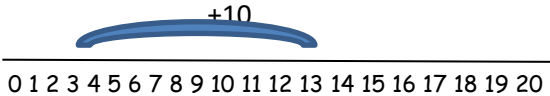
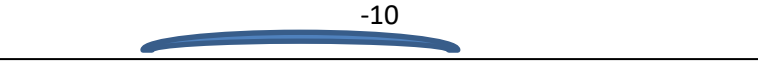
Maths Medium Term Planning – Year 1 – Summer 2








































Year 1 Summer 2			
Summer 2	Number and Place Value		
	Learning Intention	Implementation	Impact
	<b>To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</b>	During mental maths sessions the children will continue to extend counting skills – counting in 1s forwards and backwards to at least 100. They will count using the abacus, number line, a 100 square and counting around the class. They will apply their knowledge to a sequence e.g. 68, 69, 70, __. What number comes next? Sarah is counting backwards from 90 to 85. She says the numbers 90, 89, 88, 87, 85. What mistake has she made?	All children will be able to count forwards and backwards to/from at least 100 and apply this knowledge in sequences.
	<b>To count in multiples of tens.</b>	During mental maths the children will count forwards and backwards in steps of 10 to/from 100. They will apply this to questions e.g. True or false? I start at 0 and count in tens. I will say the number 41.	All children will be able to count forwards and backwards to/from 100 in steps of 10 and apply this knowledge to problems.
	<b>To count in multiples of twos</b>	During mental maths the children will count in multiples of two starting at 0 and starting at 1. They will relate these to odd and even numbers. They will apply their knowledge to a sequence e.g. 12, 14, 16, __. What number comes next? They will apply this to questions e.g. True or false? I start at 0 and count in twos. I will say the number 20? They will also practise adding up objects in pictures grouped in 2s.	All children will be able to count forwards and backwards in 2s to at least 50 and apply this knowledge to sequences and problems.
<b>To count in multiples of fives</b>	During mental maths the children will count in multiples of five starting at 0. They will apply their knowledge to a sequence e.g. 15, 20, 25, __. What number comes next? They will apply this to questions e.g. True or false? I start at 0 and count in fives. I will say the number 26? They will also practise adding up objects in pictures grouped in 5s.	All children will be able to count forwards and backwards in 5s to at least 100 and apply this knowledge to sequences and problems.	

<p><b>To read and write numbers from 0 to 100 in numerals.</b></p>	<p>During mental maths sessions flash cards for reading numbers in numerals and also using number fans to make a number to 100. Also practise writing numerals from 1 to 100. Apply – using the number cards 1, 2, 3, 4 and 5. Use two of the digit cards to make a number greater than 40.</p>	<p>The children will be able to recognise numbers up to 100 and will know how to show them with the tens and ones arranged in the correct way. They will be able to write numbers correctly to 100 in numerals.</p>
<p><b>To read and write numbers from 1 to 20 in words.</b></p>	<p>During mental maths session speed spelling on whiteboards of numbers in words (1 to ten as per phase 1 and 8, 11, 12, 15, 16, 18 as per phase 2 and 13, 14, 17, 19, 20 as per phase 3). Also taken home as spellings. Flash cards for reading numbers in words.</p>	<p>The children will know how to read and write numbers correctly in words as per phase 1, 2 and 3.</p>
<p><b>To identify one more, one less, ten more and ten less than a number.</b></p>	<p>During mental maths session the children will use a number fan/flash cards to find one more, one less, 10 more and 10 less than a number (explain which digit changes and why). Also part of minute maths (answering 15 1 more questions and moving onto 15 1 less questions).</p>	<p>The children will understand that one more is the next number along when counting in ones and one less is the number before when counting in ones. They will understand that 10 more increases the tens column by 1 ten and 10 less reduces the tens column by 1 ten. They will be able to apply these to solve problems in different contexts.</p>
<p><b>To be able to order numbers to 100.</b></p>	<p>The children will have a grid and they will have to fill in 1 more/1 less and 10 more/10 less. The children can use equipment to support their understanding such as dienes, flip books and 100 square.</p>	<p>The children will be able to order 3 numbers within 100 from smallest to largest &amp; vice versa. They will know how to use their knowledge of counting in ones and their knowledge of partitioning into tens and ones to order these.</p>
<p><b>To be able to order numbers to 100.</b></p>	<p>During mental maths the children will be given three or five numbers between 0 to 100 and they will have to put them in order from smallest to largest and vice versa. They will also say which number for example; will be in the third position?</p>	<p>The children will be able to order 3 numbers within 100 from smallest to largest &amp; vice versa. They will know how to use their knowledge of counting in ones and their knowledge of partitioning into tens and ones to order these.</p>

<p><b>To be able to identify odd and even numbers.</b></p>	<p>During mental maths the children will be shown a target board. They will pick out odd/even numbers and explain why they are odd/even e.g. it is odd because it ends in a 1. They will apply these to questions such as: Which number could be the odd one out? 40, 71, 65. Pupils suggest their own reasoned ideas, for example 40 might be the odd one out because it's not an odd number. Also can you choose two odd numbers with a difference of 2 (e.g. <math>5 - 3 = 2</math>).</p>	<p>They will understand that even numbers have a pair and odd numbers don't. They will be able to identify odd and even numbers by the digit it ends in. They will understand what 'difference' means.</p>
<p><b>To be able to find doubles to 10.</b></p>	<p>As part of the mental maths session the children will be able to find doubles up to 10. E.g. <math>10 + 10 = 20</math>. The children will complete questions relating to doubles within 10 e.g. There were 7 fish in the pond. The number of fish doubled in the pond. How many fish are now in the pond?</p> <p>E.g. Sam has 4 marshmallows on his ice-cream. Jake has double the amount on his. How many marshmallows does Jake have on his ice-cream?</p> <p>There are 2 ice-creams and 16 marshmallows. How many ways can you share marshmallows between the 2 ice-creams so that the 2<sup>nd</sup> ice-cream has double the amount of marshmallows as the 1<sup>st</sup> ice-cream.</p>	<p>They will understand that doubling a number is the same as adding the same number again.</p>
<p><b>To recognise the place value of each digit in a two digit number (tens, ones).</b></p>	<p>As part of the mental maths session the children will use flip books to work out how many tens and ones there are in a two digit number.</p>	<p>The children will understand that a two digit number is made up of tens and ones. They will relate that 1 ten is 10, 2 tens are 20 etc...</p>
<p><b>To use the language of equal to, more than, less than (fewer), most, least.</b></p>	<p>As part of the mental maths session, the children will be shown two sets of objects – which one has the most? How do you know? How many more does it have (difference)? How could we work it out? (Estimate first).</p>	<p>The children will understand what the vocabulary more than, less than, most and least means and be able to apply this.</p>
<p><b>Addition &amp; Subtraction</b></p>		

Learning intention	Implementation	Impact
<p><b>To be able to find missing symbols.</b></p> <p><b>To be able to represent and use number bonds and related subtraction facts within 20.</b></p>	<p>Write the missing symbols (+, -, =) in these sentence:  18 <input type="text"/> 20 <input type="text"/> 2</p> <p>Each day the children will answer 15 or 20 questions within a minute (minute maths) for number bonds initially within 10 and then moving onto within 20.</p> <p>As part of mental maths session they will also learn number bonds:</p> <ul style="list-style-type: none"> <li>- Table tennis game – I say 5, you say 5 (to make 10).</li> <li>- Number bond flash cards – addition and subtraction.</li> <li>- True or false?</li> </ul> <p>7 + 2 = 4 + 4  3 + 3 = 5 + 1  2 + 4 = 5 + 0</p> <ul style="list-style-type: none"> <li>- Connected calculations: 811 = 3 + 8  12 = 4 + 8  13 = ? + 8  14 = ? +</li> </ul> <p>As part of mental maths session – fact family house (come up with two addition and two subtraction sums – using only the numbers 12, 3 and 15).  Each week complete:-</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">       Fact for free:-        3 + 7 = 10        10 - 7 = 3     </div> <div style="border: 1px solid black; padding: 5px; width: 100px; text-align: center;">       Fact of the day:-        7 + 3 = 10     </div> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">       Nearby        3 + 8 = 11        3 + 6 = 9        4 + 7 =     </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">       Equivalent:        3 + 7 = 6 + 4     </div> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">       Place Value        30 + 70 =     </div> </div>	<p>The children will understand that both sides of the sum should balance and they will also be able to use their bonds to work out the missing number.</p> <p>They will understand how to use number bonds to 10 to support number bond calculations to 20, when solving missing number problems.</p> <p>They will be able to apply their knowledge of working out missing number problems to different problems and contexts.</p> <p>The children will know their addition and subtraction number bonds to 10 and will be able to use these to work out addition and subtraction number bonds within 20.</p> <p>The children will understand that two or more numbers can be added together to make different totals within 20.</p>

<p><b>To be able to understand what each digit represents in a two digit number using structured resources.</b></p> <p><b>To be able to partition two-digit numbers in different ways.</b></p> <p><b>To begin to add one and two digit numbers using jumps of tens and ones using a structured number line or apparatus for support.</b></p> <p><b>To begin to take away using jumps of ten and one using a structured number line or apparatus for support,</b></p> <p><b>To be able to solve mathematical problems and puzzles.</b></p> <p><b>To begin to learn a system for finding all possibilities.</b></p>	<p>Can they explain how this fact helps them with other facts?</p> <p>As part of the mental maths session the children will practise finding numbers according to the tens and ones.</p> <p>The children will add tens and ones to one and 2 digit numbers using a structured number line for support e.g. <math>3 + 10 = 13</math>.</p>  <p>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20</p> <p>WT may need to count 10 jumps in ones initially.</p> <p>The children will take away tens and ones using a structured number line for support e.g. <math>16 - 10 = 6</math></p>  <p>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24</p> <p>WT may need to count 10 in jumps of 1 initially, within 20.</p> <p>Problem: Teddy is going on holiday. He has 3 T-shirts and 4 pairs of shorts. How many different outfits could he wear? Can they work out how many days Teddy is going on holiday for?</p> <p>Extension: Teddy adds two pairs of shoes to his suitcase. How many different outfits can he make now?</p>	<p>The children will know that when they add ten to a number, the tens column increases by one ten and the units stay the same.</p> <p>The children will know that when they take away ten from a number, the tens column decreases by one ten and the units stay the same.</p> <p>The children will be able to solve the problem by using a system for recording their work this might be using pictorial representations or number representations.</p>
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<p><b>To be able to use number bonds to solve problems.</b></p>	<p>The children will be given the following grid below. Can they work out the value of each animal? Which animal would it be easiest to find first?</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td></td> <td></td> <td>= 12</td> <td></td> <td>= <input type="text"/></td> </tr> <tr> <td></td> <td></td> <td></td> <td>= 15</td> <td></td> <td>= <input type="text"/></td> </tr> <tr> <td></td> <td></td> <td></td> <td>= 13</td> <td></td> <td>= <input type="text"/></td> </tr> <tr> <td>=</td> <td>=</td> <td>=</td> <td></td> <td></td> <td>= <input type="text"/></td> </tr> <tr> <td>14</td> <td>10</td> <td>16</td> <td></td> <td></td> <td></td> </tr> </table> <p>There are 15 sweets altogether and 3 bags. There are 7 sweets in one bag. How many sweets could be in the other 2 bags? Can you find some of the different ways they could be shared between the bags?</p>				= 12		= <input type="text"/>				= 15		= <input type="text"/>				= 13		= <input type="text"/>	=	=	=			= <input type="text"/>	14	10	16				<p>The children will be able to draw on previous experience e.g. solving magic squares. They will begin by trial and error and then gradually begin to work consistently when they see a pattern with the middle number. The children will be able to use their knowledge of number bonds to solve a problem.</p>
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<b>Multiplication and Division</b>		
<b>Learning Intention</b>	<b>Implementation</b>	<b>Impact</b>
<p><b>To solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with support of the teacher. To understand division as grouping.</b></p>	<p>The children will complete questions relating to dividing by 2, 5 and 10 e.g. Bob has 20 bean bags. He shares them between 10 hoops. How many beanbags in each hoop. Initially the children will be given pictures of the hoops as a model and they will draw the beanbag. This model will be gradually taken away as the children become more confident.</p> <p>Mastery: Sarah is filling party bags with sweets. She has 20 sweets altogether and decides to put 5 in every bag. How many bags can she fill?</p>	<p><b>The children will be able to group objects into groups of 2 and 5 and understand sharing/division as grouping.</b></p> <p><b>The children will be able to solve multiplication problems by using pictorial representations.</b></p>

<b>Fractions</b>		
<b>Learning Intention</b>	<b>Implementation</b>	<b>Impact</b>
<p><b>To recognise, find and name a half as one of two equal parts of an object, shape or quantity.</b></p>	<p>The children will choose a number of counters. They will place them on two plates so that there is the same number on each half. When can you do this and when can't you. What do you notice?</p> <p>The children will revise finding half a shape, quantity or object as part of the mental maths session.</p> <p>The children will complete questions relating to splitting in half (sharing into 2) e.g. Bob has 20 sweets. He gives half of them to his friend. How many sweets has he got left?</p> <p>Problem: Lucy's Grandma is making a patchwork blanket. Lucy knows that it is made from 12 patches and half of the patches are red. How many patches of red will there be on the blanket? Extension: What if the blanket had 18, 20, 14 squares? Could it have 17 squares? Half of one colour? Half of another colour? Explain your thinking. Prove it. What if a quarter of the squares were red? What might the blanket look like? Investigate...</p>	<p>The children will know and understand that a shape, object or quantity is split in half when it is equally split into 2 pieces. They can apply halves to solve problems.</p>
<p><b>To recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</b></p>	<p>The children will revise finding a quarter of a shape, quantity or object as part of the mental maths session. Use unifix to support.</p> <p>The children will complete questions relating to splitting into quarters e.g. Rob had 12 fish fingers. He gave a quarter of his fish fingers to his friend Toby. How many fish fingers did he give to Toby?</p>	<p>The children will know and understand that a shape, object or quantity is split into quarters when it is equally split into 4 pieces. They can apply quarters to solve problems.</p>

<b>Measurement</b>		
<b>Learning Intention</b>	<b>Implementation</b>	<b>Impact</b>
<p><b>To tell the time to the hour and half past the hour.</b></p> <p><b>Time: earlier, later.</b></p>	<p>As part of the mental maths session children will set clocks to o'clock and half past times. They will then move onto setting clocks to one hour later and one hour earlier.</p>	<p>All children can tell the time to o'clock and half past and find one hour later and one hour earlier.</p> <p>The children will know how to tell the time for one hour later applying the principle of one more and one hour earlier applying the principle one less. They will be able to do this for o'clock and half past times.</p>
<p><b>To measure and begin to record the following: Lengths and heights. To compare, describe and solve practical problems for: Lengths and heights (e.g. Tall/short) long/short, longer.</b></p>	<p>As part of the mental maths session the children will compare length/height/mass – How do you know that this (object) is heavier/lighter/longer/shorter/taller than this one? What is the unit of measurement for each?</p> <p>Have pictures of a measuring jug, ruler and scales. Which would you use to measure the length of an object etc...?</p>	<p>The children will understand how we measure length, height, mass and capacity e.g. which equipment is used and what unit of measurement is used.</p>
<p><b>Mass or weight (e.g. heavy/light, heavier than, lighter than.</b></p>	<p>The children will measure lines up to 20cm and then draw a line half of the length.</p> <p>They will answer word problems relating to fractions and length e.g. A length of ribbon is 20cm long. If I cut it in half each length will be how long?</p>	<p>The children will be able to apply their knowledge of fractions to length and to solve problems.</p>
<p><b>Capacity/volume</b></p>	<p>Relate capacity problems to finding halves and quarters e.g. Toby and Sam shared a glass of lemonade equally. What fraction of the lemonade did they have each?</p>	<p>The children will be able to apply their knowledge of fractions to capacity word problems.</p>

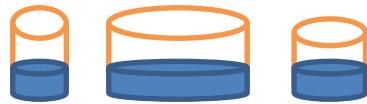


**To be able to solve problems relating to volume and capacity.**

A wizard needs to make a spell. He has lots of different potions which measure different capacities (e.g. fairy sparkle 5l, frog's legs liquid 3l, blueberry fizz 2l and snail sludge 1l).  
GD – He needs to make a potion of 15l. What ingredients could he put together to make this potion? E.g. 5l fairy sparkle + 5l fairy sparkle + frogs legs liquid 3l and blueberry fizz (2l).  
EX – As above but making a potion of 10l.  
WT – As above but making a potion of 5l.

**Mastery:**

All of the glasses contain the same quantity of lemonade. Do you agree?



Explain your reasoning.

**Mastery with Greater Depth:**

Dom has a 1 litre and a 2 litre bottle. He pours the water from the small bottle into the large bottle. Mark where the water comes to on the large bottle:



The children will know how to use their number bonds to solve problems relating to capacity.

Through practice the children will be able to answer problems relating to volume and capacity.

**Capacity/volume (full/empty, more than, less than, quarter).**

**To recognise and know the value of different denominations of coins and notes.**

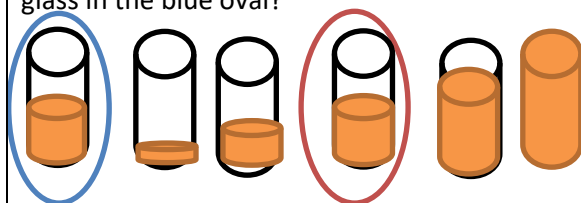
**Mastery:**

Sid has a full bottle drink. He pours it into a jug. Which has the greater capacity, the bottle or the jug?



**Mastery with greater depth:**

Point to a glass which is about half as full as the glass in the red oval. Can you point to a glass which is about twice as full as the glass in the blue oval?



As part of mental maths session the children will identify 1p, 2p, 5p, 10p, 20p, 50p, £1, £2. Also questions such as how many 1ps make..? Also add up different amounts of coins using knowledge of counting in 2s, 5s and 10s.

The children will recognise different denominations of money and they will be able to add up different amounts of money.

	<p><b>To recognise and use language relating to dates, including days of the week, weeks, months and years.</b></p> <p><b>To sequence events in chronological order using language such as: before, after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.</b></p>	<p>Sarah needs to use only one coin to pay for each thing she buys. Which things can she buy? Give children a set of cards for sorting/discussion. Include a mix of prices 1p, 2p, 4p. Make sure some can't be bought using only 1 coin.</p> <p>Michael has three coins in his pocket. Each one is worth less than 20p. How much money might Michael have?</p> <p>There are three coins in a savings box. Two are silver and one is copper. What could the coins be? What's the smallest amount of money it could be?</p> <p>During mental maths session the children recite days of the week and months of the year. Including questions such as how many days in a week, months in a year?</p> <p>During mental maths sessions children asked questions e.g. What day comes before, after. What day is it today, tomorrow, yesterday? When do we do phonics e.g. morning? Also say good morning and afternoon for register.</p>	<p>They will be able to solve problems using their knowledge of money.</p> <p>The children will understand what the different terms mean e.g. before, after etc... and also apply these to different contexts – e.g. what number comes before/after?</p> <p>The children will know the order of the days of the week and months of the year. They will also know how many days are in a week and how many months are in a year.</p>
<b>Geometry – Properties of shapes</b>			
	<b>Learning Intention</b>	<b>Implementation</b>	<b>Impact</b>
	<p><b>To recognise and name common 2D shapes (rectangles, squares, circles, triangles, hexagons and pentagons) and 3D shapes (cuboids, cubes, pyramids and spheres, cones, square based pyramid and triangular based</b></p>	<p>During mental maths sessions children work in talk partners and name 2D and 3D shapes and describe properties to each other using mathematical vocabulary (vertices, sides, edges and faces). Also play shape shop and guess my shape.</p> <p>The children will redesign an adventure playground to make it a more exciting place to play. How many different pieces of climbing equipment can they construct by fitting five multilink</p>	<p>The children will be able to name all 2D and 3D shapes, recognise their properties and use this to answer questions.</p> <p>They will understand that by rotating or turning shapes reveal s two shapes as the same. They will have also explored making</p>

	pyramids).	cubes together face to face? Extension: Pick two shapes you have made. How many different shapes can you make by joining these two shapes together?	different 3D shapes.
<b>Geometry – Position &amp; Direction.</b>			
	<b>Learning Intention</b>	<b>Implementation</b>	<b>Impact</b>
	<b>To describe position, direction and movement, including whole, half, quarter and three-quarter turns.</b>	As part of the mental maths session the children will practically move on the spot to do whole turns, half turns, quarter and three quarter turns. They will include using the vocabulary left turn (anti-clockwise), right turn (clockwise). Use language of position such as top, middle and bottom.	The children will be able to apply their knowledge of fractions and telling the time (half past, quarter past) to move in the correct direction and into the correct position.
<b>Independence Resilience Respect Team-work Creativity Aspirational.</b>			

<b>Mastering Number</b>	<b>Subitising</b>	<b>Cardinality, ordinality and counting</b>	<b>Composition</b>	<b>Comparison</b>	<b>Addition and Subtraction/Number facts</b>
	-continue to use conceptual subitising, especially when using a rekenrek.		-apply their knowledge of the composition of numbers, to calculations within 10 and 20.	-continue to draw on their knowledge of the relative size of numbers when answering questions using the inequality symbol.	-continue to practise recalling additive facts within 20, applying their knowledge of the composition of numbers within 20 and strategies within 10.