

Maths medium term plan: autumn term

Year 1

Mental Maths objectives to be covered:

Number - Number and place value:

Count reliably up to 20 objects

Count forwards in ones to and across 100 from 0, 1 or any given number.

Count backwards in ones to and across 100 from any given number.

Say that a number is one more or one less than a given number.

Compare and order numbers up to 20.

Number – Addition and Subtraction:

Derive and recall all pairs of numbers with a total of 20.

Derive and recall all addition facts for totals within 10.

Measurement:

Recognise and know the value of different denominations of coins and notes.

To compare the lengths of 2 objects.

Tell the time to the hour and half past the hour.

Geometery – Properties of shape

Recognise and name common 2D shapes (rectangles (including squares), circles and triangles)

Recognise and name common 3D shapes (cuboids (including cubes), pyramids and spheres)

Year One: Medium Term Plan - Term One

Week	Domain	National Curriculum Objectives	Reasoning, Conjecturing and Generalising Strategies	Small Step Objectives
Week 1	Number Place Value	<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p>Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</p> <p>Given a number, identify one more and one less</p> <p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</p> <p>Read and write numbers from 1 to 20 in numerals and words.</p>	<p><u>Spot the mistake:</u> 5,6,8,9 What is wrong with this sequence of numbers?</p> <p><u>True or False?</u> I start at 2 and count in twos. I will say 9</p> <p><u>What comes next?</u> 10+1 = 11 11+1 = 12 12+1 = 13</p> <p><u>Do, then explain</u> Look at the objects. (in a collection). Are there more of one type than another? How can you find out?</p>	<p>Can I recite numbers to at least 20?</p> <p>Can I count reliably up to 20 objects?</p> <p>Can I recognise that rearranged number of objects stays the same?</p> <p>Can I order numbers to 20 on a track?</p> <p>Can I say the number before/after any given number to 20?</p> <p>Can I make a sensible estimate up to 20?</p> <p>Can I make each 'teens' number by adding more to 10 (e.g. using cubes or beads and Numicon)?</p> <p>Can I partition each 'teens' number into 10 and the rest?</p>
Week 2	Addition	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p><u>Continue the pattern</u> 10 + 8 = 18 11 + 7 = 18 Can you make up a similar pattern for the number 17? How would this pattern look if it included subtraction?</p> <p><u>Missing numbers</u> 9 + = 10 10 - = 9</p> <p>What number goes in the missing box?</p>	<p>Can I understand addition as combining two sets and record the related addition sentences?</p> <p>Can I relate counting on to addition?</p> <p>Can I partition 5 into two groups and record the related addition sentences?</p>

Week 3	Money Measures	Compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later]	<p>Possibilities Ella has two silver coins. How much money might she have?</p>	Can I recognise 1p, 2p, 5p and 10p coins?
		Measure and begin to record the following: time (hours, minutes, seconds)		Can I find totals of two coins from 1p, 2p, 5p and 10p?
		Recognise and know the value of different denominations of coins and notes		Can I use vocabulary related to time?
		Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]		Can I read the time to the hour (o'clock) and half past the hour?
Week 4	Measure Shape	Recognise and use language relating to dates, including days of the week, weeks, months and years	<p>Top tips How do you know that this (object) is heavier / longer / taller than this one? Explain how you know.</p> <p>Explain thinking Ask pupils to reason and make statements about to the order of daily routines in school e.g. daily timetable e.g. we go to PE after we go to lunch. Is this true or false? What do we do before break time? etc.</p> <p>Application (Can be practical) Which two pieces of string are the same length as this book?</p>	Can I estimate, measure and compare objects?
		Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.		Can I choose and use suitable uniform non-standard or standard units?
		Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]		Can I create and find symmetrical patterns?
		Measure and begin to record the following:		
	<ul style="list-style-type: none"> ▪ lengths and heights ▪ mass/weight ▪ capacity and volume 			
	Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles]			
	Describe position, direction and movement, including whole, half, quarter and three- quarter turns.			

<p>Week 5</p>	<p>Addition and Subtraction</p>	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p><u>Working backwards</u> Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p><u>What do you notice?</u> $11 - 1 = 10$ $11 - 10 = 1$ Can you make up some other number sentences like this involving 3 different numbers?</p> <p><u>Fact families</u> Which 4 number sentences link these numbers? 12, 15, 3</p> <p><u>What else do you know?</u> If you know this: $12 - 9 = 3$ what other facts do you know?</p> <p><u>Missing symbols</u> Write the missing symbols (+ - =) in these number sentences: $17 \square 3 \square 20$ $18 \square 20 \square 2$</p> <p><u>Convince me</u> In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p><u>Missing numbers</u> Fill in the missing numbers (using a range of practical resources to support) $12 + \square = 19$ $20 - \square = 3$</p> <p><u>Making an estimate</u> Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p><u>Is it true that?</u> Is it true that $3+4 = 4 + 3$?</p>	<p>Can I understand subtraction as 'take away'?</p> <p>Can I count what's left and record the related subtraction sentences?</p> <p>Can I relate counting on 1 or 2 to addition?</p> <p>Can I understand a word problem and decide what action is needed to solve it?</p>
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Week 6	Number Place Value	<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p>Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</p> <p>Given a number, identify one more and one less</p> <p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</p> <p>Read and write numbers from 1 to 20 in numerals and words.</p>	<p><u>Spot the mistake:</u> 5,6,8,9 What is wrong with this sequence of numbers?</p> <p><u>True or False?</u> I start at 2 and count in twos. I will say 9</p> <p><u>What comes next?</u> 10+1 = 11 11+1= 12 12+1 = 13</p> <p><u>Do, then explain</u> Look at the objects. (in a collection). Are there more of one type than another? How can you find out?</p>	<p>Can I count to 100 in ones and tens from zero?</p> <p>Can I count on/back starting from any number up to 20?</p> <p>Can I order numbers to 20 on a track, then a beaded line?</p> <p>Can I mark on numbers just before and after 5, 10, 15, and 20?</p> <p>Can I compare two numbers less than 20: say which is more or less?</p> <p>Can I recognise fractions of shapes $\frac{1}{2}$ and $\frac{1}{4}$?</p>
Week 7	Doubling Halving Measure	<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 or quantity.</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><u>Making links</u> If one teddy has two apples, how many apples will three teddies have? Here are 10 lego people If 2 people fit into the train carriage, how many carriages do we need?</p> <p><u>Practical</u> If we put two pencils in each pencil pot how many pencils will we need?</p> <p><u>Spot the mistake</u> Use a puppet to count but make some deliberate mistakes. e.g. 2 4 5 6 10 9 8 6 See if the pupils can spot the deliberate mistake and correct the puppet</p>	<p>Can I find doubles to double 5?</p> <p>Can I try to share numbers to 10 to find which are even and which are odd?</p> <p>Can I find odd and even numbers on a 1-10 track?</p> <p>Can I count in twos from 1 and 2 to find odd and even numbers to 20?</p> <p>Can I use vocabulary related to time?</p> <p>Can I order days of the week and months?</p>
Week 8	2D shape Data	<p>Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles]</p>	<p><u>What's the same, what's different?</u> Find a rectangle and a triangle in this set of shapes. Tell me one thing that's the same about them. Tell me one thing that is different about them.</p> <p><u>True or false?</u> All 2-D shapes have at least 4 sides</p> <p><u>Other possibilities</u> Can you find shapes that can go with the set with this label? "Have straight sides"</p>	<p>Can I visualise and name common 2D shapes?</p> <p>Can I describe the features of common 2D shapes?</p> <p>Can I use 2D shapes to make patterns, pictures and models?</p> <p>Can I answer a question by recording information in lists and tables, using practical resources?</p>

Week 9	Addition Subtraction	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p><u>Working backwards</u> Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p><u>What do you notice?</u> $11 - 1 = 10$ $11 - 10 = 1$ Can you make up some other number sentences like this involving 3 different numbers?</p> <p><u>Fact families</u> Which 4 number sentences link these numbers? 12, 15, 3</p> <p><u>What else do you know?</u> If you know this: $12 - 9 = 3$ what other facts do you know?</p> <p><u>Missing symbols</u> Write the missing symbols (+ - =) in these number sentences: $17 \square 3 \square 20$ $18 \square 20 \square 2$</p> <p><u>Convince me</u> In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p><u>Missing numbers</u> Fill in the missing numbers (using a range of practical resources to support) $12 + \square = 19$ $20 - \square = 3$</p> <p><u>Making an estimate</u> Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p><u>Is it true that?</u> Is it true that $3+4 = 4 + 3$?</p>	<p>Can I find one more/less than any number up to 20?</p> <p>Can I find two more/less than any number up to 20, recording the hops on a beaded line?</p> <p>Can I relate counting on to addition and counting back to subtraction?</p> <p>Can I find one more/less than any two-digit number, including one more than 29, 39, etc?</p> <p>Can I partition 10 into different pairs?</p>
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<p>Week 10</p>	<p>Addition Subtraction</p>	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p><u>Working backwards</u> Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p><u>What do you notice?</u> 11 - 1 = 10 11 - 10 = 1 Can you make up some other number sentences like this involving 3 different numbers?</p> <p><u>Fact families</u> Which 4 number sentences link these numbers? 12, 15, 3</p> <p><u>What else do you know?</u> If you know this: 12 - 9 = 3 what other facts do you know?</p> <p><u>Missing symbols</u> Write the missing symbols (+ - =) in these number sentences: 17 <input type="text"/> 3 <input type="text"/> 20 18 <input type="text"/> 20 <input type="text"/> 2</p> <p><u>Convince me</u> In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p><u>Missing numbers</u> Fill in the missing numbers (using a range of practical resources to support) 12 + <input type="text"/> = 19 20 - <input type="text"/> = 3</p> <p><u>Making an estimate</u> Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p><u>Is it true that?</u> Is it true that 3+4 = 4 + 3?</p> <p><u>Connected Calculations</u> 11 = 3 + 8 12 = 4 + 8</p>	<p>Can I partition 6, 7 and 10 and record the related addition sentences?</p> <p>Can I begin to find the corresponding subtraction facts?</p> <p>Can I relate counting on to addition?</p> <p>Can I add 2, 3 or 4 by counting on?</p> <p>Can I add a pair of numbers by putting the larger number first?</p>
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			$13 = \square + 8$ $14 = \square + 8$	
Week 11	Addition Subtraction	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p>Working backwards Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p>What do you notice? $11 - 1 = 10$ $11 - 10 = 1$ Can you make up some other number sentences like this involving 3 different numbers?</p> <p>Fact families Which 4 number sentences link these numbers? 12, 15, 3</p> <p>What else do you know? If you know this: $12 - 9 = 3$ what other facts do you know?</p> <p>Missing symbols Write the missing symbols (+ - =) in these number sentences: $17 \square 3 \square 20$ $18 \square 20 \square 2$</p> <p>Convince me In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p>Missing numbers Fill in the missing numbers (using a range of practical resources to support) $12 + \square = 19$ $20 - \square = 3$</p> <p>Making an estimate Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p>Is it true that? Is it true that $3+4 = 4 + 3$?</p>	<p>Can I count from 1 to 100, count to 100 from any given number?</p> <p>Can I find one more and one less than a number up to 100?</p> <p>Do I know the number bonds to 6 and 7?</p> <p>Can I use ordinal numbers in context?</p> <p>Do I know the number bonds to 10?</p> <p>Can I find matching number pairs quickly?</p>
Week 12	Assessment			

Maths medium term plan: spring term

Year 1

Mental Maths objectives to be covered:

Number - Number and place value:

Count on in multiples of two, five and ten to and across 100.
Count to and across 100, forwards and backwards, beginning from any given number.
Say that a number is one more or one less than a given number.
Read and write numbers from 1-20 in numerals and in words.
Use knowledge of place value to order numbers to 20 and position them on a number line.

Number – Addition and Subtraction:

Derive and recall all pairs of numbers with a total of 20.
Derive and recall all addition facts for totals within 20 and related subtraction facts.
Recall the doubles of numbers to at least 10

Measurement:

Recognise and know the value of different denominations of coins and notes.
To order the days of the week.
Tell the time to the hour and half past the hour.

Geometery – Properties of shape

Recognise and name common 2D and 3D shapes (rectangles (including squares), circles and triangles)
Recognise and name common 3D shapes (cuboids (including cubes), pyramids and spheres)To sort shapes/ numbers in different ways i.e. shapes/ rectangles, odd/even numbers.

Week	Domain	National Curriculum Objectives	Reasoning, Conjecturing and Generalising Strategies	Small Step Objectives
Week 1	Number Place value	<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p>Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</p> <p>Given a number, identify one more and one less</p> <p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</p> <p>Read and write numbers from 1 to 20 in numerals and words.</p>	<p>Spot the mistake: 5,6,8,9 What is wrong with this sequence of numbers?</p> <p>True or False? I start at 2 and count in twos. I will say 9</p> <p>What comes next? 10+1 = 11 11+1 = 12 12+1 = 13</p> <p>Do, then explain Look at the objects. (in a collection). Are there more of one type than another? How can you find out?</p>	<p>Can I count to 100?</p> <p>Can I find one more or one less than any number to 100?</p> <p>Can I count in 10s from 10?</p> <p>Can I count in 10s from any number?</p> <p>Can I find 10 more and 10 less than a given number?</p> <p>Can I estimate a quantity?</p>
Week 2	Addition and Subtraction	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p>Working backwards Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p>What do you notice? 11 - 1 = 10 11 - 10 = 1 Can you make up some other number sentences like this involving 3 different numbers?</p> <p>Fact families Which 4 number sentences link these numbers? 12, 15, 3</p> <p>What else do you know? If you know this: 12 - 9 = 3 what other facts do you know?</p> <p>Missing symbols Write the missing symbols (+ - =) in these number sentences: 17 <input type="text"/> 3 <input type="text"/> 20 18 <input type="text"/> 20 <input type="text"/> 2</p> <p>Missing numbers Fill in the missing numbers (using a range of practical resources to support)</p>	<p>Do I know the number stories to 6, 7, 8, 9 and 10?</p> <p>Can I add doubles together recording in a number sentence?</p> <p>Can I add more than two small numbers, spotting pairs to ten and doubles?</p>

			$12 + \square = 19$ $20 - \square = 3$	
Week 3	Addition and Subtraction	<p>Recognise and know the value of different denominations of coins and notes</p> <p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p>Working backwards Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p>What do you notice? $11 - 1 = 10$ $11 - 10 = 1$ Can you make up some other number sentences like this involving 3 different numbers?</p> <p>Fact families Which 4 number sentences link these numbers? 12, 15, 3</p> <p>What else do you know? If you know this: $12 - 9 = 3$ what other facts do you know?</p> <p>Missing symbols Write the missing symbols (+ - =) in these number sentences: $17 \square 3 \square 20$ $18 \square 20 \square 2$</p> <p>Convince me In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p>Missing numbers Fill in the missing numbers (using a range of practical resources to support) $12 + \square = 19$ $20 - \square = 3$</p> <p>Making an estimate Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p>Is it true that? Is it true that $3+4 = 4 + 3$?</p>	<p>Can I recognise 1p, 2p, 5p, 10p, £1 coins?</p> <p>Can I find totals using more than two coins up to 10p in value?</p> <p>Can I work out what coins can be used to pay an amount up to 10p?</p> <p>Can I begin to find all possibilities by making an ordered list?</p> <p>Can I count on in tens from single digit numbers and back?</p> <p>Can I relate counting on in tens to find 10 more/less than any two-digit number?</p>

Week 4	Measures Weight Time	<p>Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] time [for example, quicker, slower, earlier, later]</p> <p>Measure and begin to record the following:</p> <ul style="list-style-type: none"> ▪ lengths and heights ▪ mass/weight ▪ capacity and volume ▪ time (hours, minutes, seconds) <p>Recognise and know the value of different denominations of coins and notes</p> <p>Sequence events in chronological order using language [for example, 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>Top tips How do you know that this (object) is heavier / longer / taller than this one? Explain how you know.</p> <p>Explain thinking Ask pupils to reason and make statements about to the order of daily routines in school e.g. daily timetable e.g. we go to PE after we go to lunch. Is this true or false? What do we do before break time? etc.</p> <p>Application (Can be practical) Which two pieces of string are the same length as this book?</p>	<p>Can I estimate, measure and compare objects, choosing and using suitable uniform non-standard or standard units?</p> <p>Can I use vocabulary related to time?</p> <p>Can I read the time to the hour (o'clock) and half past the hour?</p>
Week 5	Double Halve Sequences Data	<p>Notes and guidance (non-statutory)</p> <p>Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities.</p> <p>Make connections between arrays, number patterns, and counting in twos, fives and tens.</p>	<p>Making links If one teddy has two apples, how many apples will three teddies have? Here are 10 lego people If 2 people fit into the train carriage, how many carriages do we need?</p> <p>Practical If we put two pencils in each pencil pot how many pencils will we need?</p> <p>Spot the mistake Use a puppet to count but make some deliberate mistakes. e.g. 2 4 5 6 10 9 8 6 See if the pupils can spot the deliberate mistake and correct the puppet</p>	<p>Can I count in tens?</p> <p>Can I count in twos?</p> <p>Can I recognise number sequences?</p> <p>Do I know odd and even numbers?</p> <p>Can I double numbers to 10?</p> <p>Can I halve even numbers to 20?</p> <p>Can I use sorting diagrams?</p>

Week 6	Number Place Value	<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p>Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</p> <p>Given a number, identify one more and one less</p> <p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</p> <p>Read and write numbers from 1 to 20 in numerals and words.</p>	<p><u>Spot the mistake:</u> 5,6,8,9 What is wrong with this sequence of numbers?</p> <p><u>True or False?</u> I start at 2 and count in twos. I will say 9</p> <p><u>What comes next?</u> 10+1 = 11 11+1 = 12 12+1 = 13</p> <p><u>Do, then explain</u> Look at the objects. (in a collection). Are there more of one type than another? How can you find out?</p>	<p>Do I know what each digit means in a 2-digit number?</p> <p>Can I partition 2-digit numbers into tens and units?</p> <p>Can I order numbers to 100 on a track, then a beaded line?</p> <p>Can I compare two numbers less than 100, say which is more or less?</p> <p>Can I say a number between any given neighbouring pairs of multiples of ten (e.g. 40 and 50)?</p> <p>Can I investigate and create different 2-digit numbers?</p>
Week 7	Measures Subtraction	<p>Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</p> <p>Measure and begin to record the following:</p> <ul style="list-style-type: none"> ▪ lengths and heights ▪ mass/weight ▪ capacity and volume <p>Recognise and know the value of different denominations of coins and notes</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>		<p>Can I measure objects using non-standard units of measurements (cubes)?</p> <p>Can I estimate and compare lengths?</p> <p>Can I find a difference in height/length?</p> <p>Can I find numbers with a given difference?</p> <p>Can I begin to use a systematic way of recording results?</p>

Week 8	Measuring Data	<p>Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</p> <p>Measure and begin to record the following:</p> <ul style="list-style-type: none"> capacity and volume 	<p>Top tips How do you know that this (object) is heavier / longer / taller than this one? Explain how you know.</p> <p>Explain thinking Ask pupils to reason and make statements about to the order of daily routines in school e.g. daily timetable e.g. we go to PE after we go to lunch. Is this true or false? What do we do before break time? etc.</p>	<p>Do I understand the term 'capacity'?</p> <p>Can I compare different capacities by direct comparison?</p> <p>Can I estimate, measure and compare capacities using uniform non-standard units?</p> <p>Can I present data in pictograms and block graphs and answer questions about them?</p>
Week 9	Addition Subtraction	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p>Working backwards Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p>What do you notice? 11 - 1 = 10 11 - 10 = 1 Can you make up some other number sentences like this involving 3 different numbers?</p> <p>Fact families Which 4 number sentences link these numbers? 12, 15, 3</p> <p>What else do you know? If you know this: 12 - 9 = 3 what other facts do you know?</p> <p>Missing numbers Fill in the missing numbers (using a range of practical resources to support) 12 + <input type="text"/> = 19 20 - <input type="text"/> = 3</p> <p>Making an estimate Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p>Is it true that? Is it true that 3+4 = 4 + 3?</p>	<p>Can I find pairs to 6, 7, 8, 9 and 10?</p> <p>Can I begin to relate addition and subtraction facts?</p> <p>Can I find doubles and near doubles?</p> <p>Can I add 10 then small multiples of 10 to 2-digit numbers?</p> <p>Can I subtract 10 and then small multiples of 10 from 2-digit numbers?</p>

Week 10	Addition Subtraction	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p><u>Working backwards</u> Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p><u>What do you notice?</u> $11 - 1 = 10$ $11 - 10 = 1$ Can you make up some other number sentences like this involving 3 different numbers?</p> <p><u>Fact families</u> Which 4 number sentences link these numbers? 12, 15, 3</p> <p><u>What else do you know?</u> If you know this: $12 - 9 = 3$ what other facts do you know?</p> <p><u>Missing symbols</u> Write the missing symbols (+ - =) in these number sentences: $17 \square 3 \square 20$ $18 \square 20 \square 2$</p> <p><u>Convince me</u> In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p><u>Missing numbers</u> Fill in the missing numbers (using a range of practical resources to support) $12 + \square = 19$ $20 - \square = 3$</p> <p><u>Making an estimate</u> Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p><u>Is it true that?</u> Is it true that $3+4 = 4 + 3$?</p>	<p>Know number bonds to 10 and use pairs to ten to bridge ten ($8+3$, $8+4$...) with visual support? (Bead strings and numicon)</p> <p>Can I add single-digit amounts of pence, bridging 10p?</p> <p>Can I sort calculations according to whether they will bridge ten or not?</p>
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Week 11	Addition Money	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p>Possibilities</p> <p>Ella has two silver coins. How much money might she have?</p>	Can I find way to pay amounts up to 20p?
				Can I find totals of single-digit prices using known facts or counting on?
				Can I add 10p and 20p to two-digit amounts of money?
				Can I find change from 10p?
Week 12	Assessment			Can I find the difference between amounts of money less than 20p, with a difference of 5p or less?

Maths medium term plan: summer term

Year 1

Mental Maths objectives to be covered:

Number - Number and place value:

Count on in multiples of two, five and ten to and across 100. Derive the multiples of 2, 5 and 10.
Say that a number is one more or one less than a given number.
Count, read and write numbers to 100 in numerals.
Use knowledge of place value to order numbers to 20 and position them on a number line.

Number – Addition and Subtraction:

Derive and recall all pairs of numbers with a total of 20.
Derive and recall all addition facts for totals within 20 and related subtraction facts.
Recall the doubles of numbers to at least 10
Find small differences.

Measurement:

Recognise and know the value of different denominations of coins and notes.
Find money totals.
Tell the time to the hour and half past the hour.

Geometry – Properties of shape

Recognise and name common 2D and 3D shapes (rectangles (including squares), circles and triangles)
Recognise and name common 3D shapes (cuboids (including cubes), pyramids and spheres)
To sort shapes/ numbers in different ways i.e. shapes/ rectangles, odd/even numbers.

Week	Domain	National Curriculum Objectives	Reasoning, Conjecturing and Generalising Strategies	Small Step Objectives
Week 1	Number	<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p>Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</p> <p>Given a number, identify one more and one less</p> <p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</p> <p>Read and write numbers from 1 to 20 in numerals and words.</p>	<p><u>Spot the mistake:</u> 5,6,8,9 What is wrong with this sequence of numbers?</p> <p><u>True or False?</u> I start at 2 and count in twos. I will say 9</p> <p><u>What comes next?</u> 10+1 = 11 11+1 = 12 12+1 = 13</p> <p><u>Do, then explain</u> Look at the objects. (in a collection). Are there more of one type than another? How can you find out?</p>	<p>Can I recite numbers to 100?</p> <p>Can I count up to 100 objects (e.g. beads on a bead bar)?</p> <p>Can I count on in tens from single-digit numbers and back?</p> <p>Can I order numbers to 100 on a track, then a beaded line?</p> <p>Can I compare two numbers less than 100 and say which is more or less?</p> <p>Can I say a number between any given neighbouring pairs of multiples of ten (e.g. 40 and 50)?</p> <p>Can I work out halves and quarters of shapes and amounts?</p>

Week 2	Addition Subtraction	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p><u>Working backwards</u> Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p><u>What do you notice?</u> $11 - 1 = 10$ $11 - 10 = 1$ Can you make up some other number sentences like this involving 3 different numbers?</p> <p><u>Fact families</u> Which 4 number sentences link these numbers? 12, 15, 3</p> <p><u>What else do you know?</u> If you know this: $12 - 9 = 3$ what other facts do you know?</p> <p><u>Missing symbols</u> Write the missing symbols (+ - =) in these number sentences: $17 \square 3 \square 20$ $18 \square 20 \square 2$</p> <p><u>Convince me</u> In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p><u>Missing numbers</u> Fill in the missing numbers (using a range of practical resources to support) $12 + \square = 19$ $20 - \square = 3$</p> <p><u>Making an estimate</u> Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p><u>Is it true that?</u> Is it true that $3+4 = 4 + 3$?</p>	<p>Can I add 10 to 2-digit numbers?</p> <p>Can I subtract 10 from 2-digit numbers?</p> <p>Can I add 11 to multiples of ten by adding 10, then 1?</p> <p>Can I subtract 11 from multiples of ten by subtracting 10, then 1?</p> <p>Can I add 11 to two-digit numbers by adding ten, then one more?</p>
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Week 3	Number - Addition Subtraction	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p><u>Working backwards</u> Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p><u>What do you notice?</u> $11 - 1 = 10$ $11 - 10 = 1$ Can you make up some other number sentences like this involving 3 different numbers?</p> <p><u>Fact families</u> Which 4 number sentences link these numbers? 12, 15, 3</p> <p><u>What else do you know?</u> If you know this: $12 - 9 = 3$ what other facts do you know?</p> <p><u>Missing symbols</u> Write the missing symbols (+ - =) in these number sentences: $17 \square 3 \square 20$ $18 \square 20 \square 2$</p> <p><u>Convince me</u> In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p><u>Missing numbers</u> Fill in the missing numbers (using a range of practical resources to support) $12 + \square = 19$ $20 - \square = 3$</p> <p><u>Making an estimate</u> Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p><u>Is it true that?</u> Is it true that $3+4 = 4 + 3$?</p>	<p>Can I use pairs to add to 10</p> <p>Can I use pairs to ten to bridge ten when adding with visual support?</p> <p>Can I use pairs to ten to bridge ten when subtracting ($12 - 2$, $12 - 3$, $12 - 4$, ...) with visual support?</p> <p>Can I sort calculations according to whether they will bridge ten or not?</p>
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Week 4	Shape Measure	<p>Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles]</p> <p>3-D shapes [for example, cuboids (including cubes), pyramids and spheres].</p> <p>Describe position, direction and movement, including whole, half, quarter and three- quarter turns.</p> <p>Compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later]</p> <p>Measure and begin to record the following: time (hours, minutes, seconds)</p> <p>Sequence events in chronological order using language [for example, 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>Explain thinking Ask pupils to reason and make statements about to the order of daily routines in school e.g. daily timetable e.g. we go to PE after we go to lunch. Is this true or false? What do we do before break time? etc.</p>	<p>Can I visualise and name common 3D shapes?</p> <p>Can I describe the features of common 3D shapes?</p> <p>Can I use 3D shapes to make patterns and models?</p> <p>Can I use vocabulary related to time and read the time to the hour (o'clock) and half past the hour?</p>
Week 5	Multiplication Division	<p>Notes and guidance (non-statutory)</p> <p>Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities.</p> <p>Make connections between arrays, number patterns, and counting in twos, fives and tens.</p>	<p>What do you notice? Choose a number of counters. Place them onto 2 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>True or false? Sharing 8 apples between 4 children means each child has 1 apple.</p>	<p>Can I use counting in 2s, 5s or 10s to solve a practical problem involving repeated addition?</p> <p>Can I begin to use a penny number line to work out multiplication by finding how many sets of?</p> <p>Can I work out simple division problems by finding how many sets in a given number?</p>

Week 6	Money	<p>Recognise and know the value of different denominations of coins and notes</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>		<p>Can I find totals to 20p?</p> <p>Can I find totals of different amounts using number facts?</p> <p>Can I add ten and twenty pence to different amounts?</p> <p>Can I find change by finding the difference and counting on?</p> <p>Can I find differences between money amounts?</p>
Week 7	Addition Subtraction	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p><u>What do you notice?</u> $11 - 1 = 10$ $11 - 10 = 1$ Can you make up some other number sentences like this involving 3 different numbers?</p> <p><u>Fact families</u> Which 4 number sentences link these numbers? 12, 15, 3</p> <p><u>What else do you know?</u> If you know this: $12 - 9 = 3$ what other facts do you know?</p> <p><u>Missing symbols</u> Write the missing symbols (+ - =) in these number sentences: $17 \square 3 \square 20$ $18 \square 20 \square 2$</p> <p><u>Convince me</u> In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p><u>Missing numbers</u> Fill in the missing numbers (using a range of practical resources to support) $12 + \square = 19$ $20 - \square = 3$</p> <p><u>Making an estimate</u> Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p><u>Is it true that?</u> Is it true that $3+4 = 4 + 3$?</p>	<p>Can I use pairs to ten to find the complement to the next multiple of ten, using a bead string/beaded number line for support?</p> <p>Can I add single digit numbers to 2-digit numbers using patterns and number facts including doubles?</p> <p>Can I add pairs to 10 and finding numbers that can easily be added together using these facts?</p>

<p>Week 8</p>	<p>Measure Shape</p>	<p>Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] time [for example, quicker, slower, earlier, later]</p> <p>Measure and begin to record the following: time (hours, minutes, seconds)</p> <p>Sequence events in chronological order using language [for example, 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>Describe position, direction and movement, including whole, half, quarter and three- quarter turns.</p>	<p>Working backwards The shape below was turned three quarter of a full turn and ended up looking like this. </p> <p>What did it look like when it started? (practical)</p>	<p>Do I know the order of days of the week and months of the year and can I say a consecutive day/month?</p> <p>Can I tell the time to the nearest half hour and find times half an hour later?</p> <p>Can I recognise 3D shapes and discuss how they have been turned?</p> <p>Can I describe the direction and position of 3D shapes?</p>
<p>Week 9</p>	<p>Multiplication Division</p>	<p>Notes and guidance (non-statutory)</p> <p>Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities.</p> <p>Make connections between arrays, number patterns, and counting in twos, fives and tens.</p>	<p>Making links If one teddy has two apples, how many apples will three teddies have? Here are 10 lego people If 2 people fit into the train carriage, how many carriages do we need?</p> <p>Practical If we put two pencils in each pencil pot how many pencils will we need?</p> <p>Spot the mistake Use a puppet to count but make some deliberate mistakes.</p> <p>e.g. 2 4 5 6 10 9 8 6 See if the pupils can spot the deliberate mistake and correct the puppet</p>	<p>Can I double and halve and multiply?</p> <p>Do I understand multiplication as repeated addition?</p> <p>Can I use multiplication sentences to describe a practical problem and begin to make some links to division (how many sets of)?</p> <p>Do I understand grouping as one model of division?</p> <p>Can I begin to describe how to solve a word problem?</p>

<p>Week 10</p>	<p>Addition Subtraction Money</p>	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Represent and use number bonds and related subtraction facts within 20</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems</p>	<p><u>Working backwards</u> Through practical games on number tracks and lines ask questions such as "where have you landed?" and "what numbers would you need to throw to land on other given numbers?"</p> <p><u>What do you notice?</u> 11 - 1 = 10 11 - 10 = 1 Can you make up some other number sentences like this involving 3 different numbers?</p> <p><u>Fact families</u> Which 4 number sentences link these numbers? 12, 15, 3</p> <p><u>What else do you know?</u> If you know this: 12 - 9 = 3 what other facts do you know?</p> <p><u>Missing symbols</u> Write the missing symbols (+ - =) in these number sentences: 17 <input type="text"/> 3 <input type="text"/> 20 18 <input type="text"/> 20 <input type="text"/> 2</p> <p><u>Convince me</u> In my head I have two odd numbers with a difference of 2. What could they be? Convince me</p> <p><u>Missing numbers</u> Fill in the missing numbers (using a range of practical resources to support) 12 + <input type="text"/> = 19 20 - <input type="text"/> = 3</p> <p><u>Making an estimate</u> Pick (from a selection of number sentences) the ones where the answer is 8 or 9.</p> <p><u>Is it true that?</u> Is it true that 3+4 = 4 + 3?</p>	<p>Can I add single-digit numbers to 2-digit numbers using facts?</p> <p>Can I subtract single-digit numbers from 2-digit numbers using facts?</p> <p>Do I know which operation to use to work out number sentences?</p> <p>Can I find totals of money amounts?</p> <p>Do I know the best order to add amounts?</p> <p>Can I work out change by finding the difference?</p>
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Week 11	Measures Data	Compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later]		Can I recognise and use language relating to dates, including days of the week, weeks, months and years?
		Measure and begin to record the following: time (hours, minutes, seconds)		Can I tell the time to the hour and half past the hour and draw the hands on a clock face to show these times?
		Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]		Can I recognise half-past digital and analogue times?
		Recognise and use language relating to dates, including days of the week, weeks, months and years		Can I sequence events in chronological order using language, e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening?
Week 12	Assessment	Assessment week is moveable		
Week 13	Revision of topics based on results of assessment			