Maths Medium Term Planning – Year 1 – Autumn 1

	Year 1 Autumn 1		
	Number and Place Value		
	Learning Intention	**Implementation**	**Impact**
Autumn	**To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.**	During mental maths sessions the children will continue to extend counting skills – counting in 1s forwards and backwards to at least 30, then 50. They will count using the abacus, number line and counting around the class. They will apply their knowledge to a sequence e.g. 14, 15, 16, _. What number comes next? What number is missing 12, 13, 15, 16?	All children will be able to count forwards and backwards to/from at least 50 by the end of the Autumn term and apply this knowledge in sequences.
	To count in multiples of tens.	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 30.	All children will be able to count forwards and backwards to/from 100 in steps of 10 and apply this knowledge to problems.
	To read and write numbers from 1 to 20 in words.	During mental maths sessions practise writing numerals from 1 to 20. Extending to 30 and then 50. Also speed spelling on whiteboards of numbers in words (1 to ten as per phase 1). Also taken home as spellings. Flash cards for reading numbers in numerals and words used. Apply – using the number cards 1, 2, 3, 4 and 5. Use two of the digit cards to make a number greater than 30.	The children will know how to write numbers correctly in numerals to 50 and in words up to ten by the end of the Autumn term.
	To identify one more and one less than a number.	During mental maths moving from a practical number track to using number fans/flash cards. Also part of minute maths (answering 15 1 more questions and moving onto 15 1 less questions). Also applying e.g. Tom thought of a number. One less than his number was 11. What was his number?	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.

		During mental maths session the children will practise ordering numbers within 100.	The children will be able to order 3 numbers within 100 from smallest to largest and vice versa.
	To be able to order numbers to 20.		
	To understand what each digit represents in numbers to 20 and represent these numbers with structured resources. **Begin to recognise the significance of 'ten' in the number system.**		
Addition & Subtraction			
	Learning intention	**Implementation**	**Impact**
	To be able to add and subtract one digit numbers.	The children will add and subtract one digit numbers where the answer is within 20 using cups. Moving onto applying this to number bonds in a mental capacity. They will apply this to adding money amounts up to 10p initially and then 20p from a toy shop. They will generate their own addition and subtraction sums using a dice.	The children can add and subtract one digit numbers practically, recorded and mentally. They will understand that sums can be written in different ways e.g. 7=3 + 4 , 3 + 4 = 7. They will understand that addition can be done in any order (commutative) but subtraction cannot.
	To be able to use a number line for addition and subtraction – counting on for addition and counting back for subtraction. Using practical objects/pictures on a number line.	The children will add and subtract one digit numbers using a number line where the answer is within 20. This will include adding and taking away 0.	The children will know how to use a number line to add and subtract. They will understand that the numbers get smaller when subtracting and the numbers increase when adding. They will also be able to explain what happens when adding or taking away 0.
	Alongside independent recording, pupils begin to use "+", "-"and "=" symbols with understanding.	The children will complete mixed addition and subtraction sums carrying out the correct operation. They will apply this knowledge to completing the missing sign in given sums.	The children will understand what operation to carry out by looking at the symbols. They will understand the relevance of the "=" sign where both sides of the sum must balance.
	To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations.	The children will complete word problems for both addition and subtraction within 20 – independent recording. E.g. Anna has 2 bags of star gums. She has 14 in one bag and 6 in another. How many star gums does she have altogether? Can they think of their own word problem for their friend to solve?	The children will understand the vocabulary which tells us the operation to carry out in the word problem e.g. more means adding.

	To be able to partition numbers to 10 in different ways.	The children will use their number bonds to 10 to partition numbers to 10 e.g. 3 + 7 =. They will move onto using 3 numbers e.g. 3 + 3 + 4=10.	The children will understand that 2 or more numbers can be added together to make 10. They will also understand the relationship between addition and subtraction number bonds e.g. If we know 3 + 7 = 10. We also know 7 + 3 = 10 (commutative).
	To be able to solve addition and subtraction missing number problems.	The children will solve addition missing number problems where the number is missing in the first or second position. Extend to 3 number sums with one number missing, then 2 numbers missing and then 3 numbers missing.	The children will understand that the missing number is what they need to add to the other number on the same side of the equals sign to arrive at the answer e.g. 3 +? = 10 NOT adding 3 + 10 = 13.
	To be able to represent and use number bonds and related subtraction facts within 20.	During mental maths sessions the children will learn number bonds to 10 (addition and subtraction). They will use flash cards, number dice, fact family house (given the numbers 3, 4 and 7 can they find the two addition and the two subtraction sums?) and throwing beanbags. As part of independent maths activity the children will add up the dots on different dominoes. Daily they will complete 15 number bond questions in a minute depending on which number bond they are working on (minute maths).	All children will know their addition and subtraction number bonds to 10.

Multiplication and Division		
Learning Intention	**Implementation**	**Impact**
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.	As part of mental maths the children will learn to count in 2s and 10s in preparation for solving multiplication problems in Autumn 2.	The children will be able to count in 2s and 5s and recognise odd and even numbers when counting in 2s.
Fractions		
Learning Intention	**Implementation**	**Impact**
To recognise, find and name a half as one of two equal parts of an object, shape or quantity.	The children will shade half of a shape. They will tick shapes that have been split in half and put a cross in shapes which have not been split in half. Can they find different ways of shading a half of a shape split into 4 equal parts? Using unifix to support the children will find a half of quantities up to 20. Can they circle half of a group of objects up to 16 objects? Apply halving to word problems finding half of amounts up to 16 e.g. There is a class of 16 children. A half of them go on a school trip. How many children go on a school trip?	The children will know and understand that a shape, object or quantity is split in half when it is equally split into 2 pieces.

Measurement

Learning Intention	Implementation	Impact
To compare, describe and solve practical problems for: Lengths and heights (e.g. long/short, longer/shorter, tall/short, double half).	The children will practise arranging themselves in order from shortest to tallest. The children will find two items which are longer and 2 items that are shorter than a lollipop stick. Tick which line is longer – the wiggly or the straight line.	They will understand the vocabulary shorter and taller and be able to find items matching this description.
To measure and begin to record the following: Lengths and heights.	The children will learn that we measure from 0 on a ruler and they will measure the lengths of different lines. The children will measure the height of different trees. They will put them in order from shortest to tallest.	The children will understand how to measure different lengths in centimetres and where to start their ruler when measuring and that it must run parallel to the line being measured.
To tell the time to the hour.	As part of mental maths session children set clocks to o'clock times and also read o'clock times. As main activity record the times underneath the clocks.	All children can tell the time to o'clock.
Time: quicker, slower, earlier, later.	The children will practise setting plastic clocks to one hour later and one hour later. They will then record times on an activity sheet. They will complete word problems in relation to this.	The children will know how to tell the time one later applying the principle of one more and one hour earlier applying the principle one less. They will be able to apply this to word problems.
To recognise and know the value of different denominations of coins and notes.	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 can identify different coins and add up different amounts of money.
To sequence events in chronological order using language such as: before, after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.	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.	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? 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.

	To recognise and use language relating to dates, including days of the week, weeks, months and years.	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? Cut out and ordered days of the week in main maths session.			

Geometry – properties of shapes

Learning Intention	Implementation	Impact
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 pyramids).	During mental maths sessions children work in talk partners and name shapes and describe properties to each other. Also play shape shop.	The children will be able to name all 2D and 3D shapes and their properties.

Mastering Number	Subitising	Cardinality, ordinality and counting	Composition	Comparison	Addition and subtraction/ Number facts
	• revisit subitising within 5 using perceptual subitising • practise conceptual subitising of bigger numbers as they become more familiar with patterns made by the numbers 5–10.	• explore the linear number system within 10, looking at a range of ordinal representations • explore the link between the 'staircase' pattern and a number track.	• focus on the composition of numbers within 10, with a particular emphasis on the composition of numbers 6, 7, 8 and 9 as '5 and a bit', as well as exploring the composition of numbers 5 and 6 in-depth • explore the composition of odd		Although children will not be looking at number bonds expressed as equations, their work on the composition of numbers within 10 will be developing their knowledge of number bonds.

			and even numbers, identifying that even numbers are made of 2s and odd numbers have 'an extra 1' – they will link this to the 'shape' of these numbers.		
	Independence **Resilience** **Respect** **Team-work** **Creativity** **Aspirational.**				