Year 2 Spring 1

Starter suggestions for Number

- Read and write numbers to 100 in figures and words.
- Count on and back in 1s from any one or two-digit number.
- Count on and back in steps of 2, 3 and 5 from 0.
- Count on and back in 10s from any number.
- Recall multiplication facts for the 2x, 5x and 10x tables.
- Recognise odd and even numbers.
- Order a set of random numbers to 100.
- Recall addition and subtraction facts for each number up to 20, and related facts up to 100.
- Recall doubles of simple 2-digit numbers i.e. numbers in which the ones total less than 10.
- Recall halves of simple even numbers i.e. numbers in which the tens are even.
- Add a single digit number to any 2-digit number.
- Take away a single digit number from 2-digit number.
- Identify number patterns on number lines and hundred squares.

Starter suggestions for Measurement, Geometry and Statistics

- Identify 2-D shapes in different orientations and begin to describe them.
- Identify 3-D shapes in different orientations and begin to describe them.
- Compare and sort common 2-D and 3-D shapes and everyday objects.
- Order and arrange combinations of mathematical objects in patterns and sequences.
- Describe position, direction and movement, including whole, half, quarter and three-quarter turns.
- Estimate the length and height of familiar items using standard units.
- Estimate mass and capacity of familiar items using standard units.
- Tell the time to the nearest five minutes on an analogue clock.
- Know the number of minutes in an hour and the number of hours in a day.
- Recognise and count amounts of money.
- Interpret simple pictograms, tally charts, block diagrams and tables.

	Main learning	Rationale
Week 1 **Number and place value in the context of measures**	▪ Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. ▪ Read and write numbers to at least 100 in numerals. ▪ Recognise the place value of each digit in a two-digit number (tens, ones). ▪ Identify, represent and estimate numbers using different representations, including the number line. ▪ Compare and order numbers from 0 up to 100; use <, > and = signs. ▪ *Find 1 or 10 more or less than a given number.* ▪ *Round numbers to at least 100 to the nearest 10.*	Children's understanding of the number system should now include numbers up to and beyond 100. They should use practical equipment, familiar items and pictures to represent the numbers they are working with – children should understand the notion of grouping in tens i.e. 10 ones is the same as 1 ten and that in two-digit number the first digit refers to the number of groups of ten. Children should experience numbers in different ways to support other place value understanding e.g. ordering numbers on a number line to support comparing and rounding numbers, and also make links between the number line and measuring scales. All of the place value objectives in this week should be presented in the context of measurement.
Week 2 **Measurement (mass)**	▪ Choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit using scales. ▪ Compare and order mass and record the results using >, < and =. ▪ Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.	Children should use the term mass instead of weight. Children should work practically to measure the mass of different items. They should use standard units and then consolidate their place value knowledge by comparing and ordering masses. The understanding of positioning numbers on a number line is applied to measuring scales and estimating and identifying masses of familiar items. Children should use measuring scales that use increments of 1, 2, 3, 5 or 10 and be using numbers up to and beyond 100.
Week 3 **Geometry (2-D and 3-D shape)**	▪ Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. ▪ Identify 2-D shapes on the surface of 3-D shapes, (for example, a circle on a cylinder and a triangle on a pyramid). ▪ Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. ▪ Compare and sort common 2-D and 3-D shapes and everyday objects.	When learning about shapes, children should handle, name and describe them. Children should recognise shapes in different orientations and also in different sizes, and know that some shapes can look differently to other shapes with the same name. When describing 2-D shapes, it is useful for children to consistently use the terms side and vertex (vertices). When describing 3-D shapes, it is useful for children to consistently use the terms face, edge and vertex (vertices). When sorting shapes in different ways, children should use various diagrams including sorting tables, Venn and Carroll diagrams.
Week 4 **Counting and money**	▪ Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. ▪ Recognise and use symbols for pounds (£) and pence (p). ▪ Combine amounts to make a particular value. ▪ Find different combinations of coins that equal the same amounts of money. ▪ Add and subtract money of the same unit, including giving change. ▪ Solve simple problems in a practical context involving addition and subtraction of money.	Children should become fluent in recognising the values of different coins. Children continue to understand how many pennies each coin is worth and exchange between pennies and 2p, 5p, 10p and 20p coins. This could be done in a Bank role play area. Children should apply their skill of counting in 2s, 5s and 10s to counting coins of these values. Shop role play could be used when teaching about paying for amounts exactly. This is a good opportunity for children to experience finding all possibilities problems. Combining coins to make given amounts should be linked to addition and number sentences e.g. how many ways can you pay exactly for an item costing 14p? At this stage, children should record £ and p separately. Formal recording of money using decimal places occurs in Year 4.

	Main learning	Rationale
Week 5 **Multiplication**	▪ *Understand multiplication as repeated addition.* ▪ Show that multiplication of two numbers can be done in any order (commutative). ▪ Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. ▪ *Understand the connection between the 10 multiplication table and place value.* ▪ Calculate mathematical statements for multiplication *(using repeated addition)* within the multiplication tables and write them using the multiplication (×) and equals (=) signs. ▪ Solve problems involving multiplication, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	When counting, children should be encouraged to identify patterns in the sequences and reason as to why these patterns emerge. Rote counting should be linked to repeated addition and the creation of arrays. Children should learn that multiplication is a convenient way of repeatedly adding a number to itself e.g. 2+2+2+2+2+2 can be said as 2x6 (2 added to itself 6 times). The array created can then be used to demonstrate commutativity i.e. that 2x6 is the same as 6x2. Children should make links to real life application of multiplication as repeated addition. Children should begin to relate counting in steps of 2, 3, 5 and 10 to the multiplication tables. The 2x table and counting in 2s from different starting points should be used alongside practical equipment to enable children to understand even and odd numbers.
Week 6 **Division**	▪ *Understand division as sharing and grouping.* ▪ Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. ▪ Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. ▪ Calculate mathematical statements for division within the multiplication tables and write them using the division (÷) and equals (=) signs. ▪ Solve problems involving division, using materials, arrays, *repeated subtraction and sharing*, mental methods, and multiplication and division facts, including problems in contexts.	Children should be introduced to division using contexts that involve sharing. Division as grouping should also be explored practically and linked to the arrays from the previous week. This helps children see the inverse relationship between multiplication and division by exploring 'How many groups of… are there in…? The contexts for grouping should be ones children can relate to, for example making teams of equal size from a given number of children; putting 5 sweets in each bag and finding how many bags can be filled using 47 sweets? These real life scenarios support children in understanding that some numbers do not divide equally and this gives rise to remainders.