Maths Programme of Study – Year 1

	Autumn	Spring	Summer
Place Value and a Sense of Number	Count to and across 100 from any given number (forwards and backwards). Begin to use a number line to count on and back with whole numbers. Read and write whole numbers from 1 to 20 in numbers and words. Count in multiples of twos and tens. Identify one more and one less (ten more and ten less) from any given whole number. Count in multiples of 2s, 5s and 10s (using visual prompts such as a number line).	Count to and across 100 from any given number (forwards and backwards). Identify one more and one less from any whole number and ten more, ten less (using a number line and hundred square). Use a number line to order whole numbers and count on and back with whole numbers is equal steps. Read and write whole numbers from 1 to 20 in numbers and words. Begin to read and write whole numbers to 100 in numerals. Count, read and write numbers to 100. Count in multiples of twos, fives and tens.	Count on to and back from any given whole number, up to and across 100. Use the number line and comparative language to order whole numbers (more than/less than). Identify one more and one less (ten more and ten less) from any given whole number. Count in multiples of 2s, 5s and 10s (using visual prompts such as a number line). Use concrete and pictorial representations with comparative language to independently order whole numbers (more than/less than). Independently read, write and say numbers from 1 to 20 (to 100, with support) in numerals and words. Construct models and images to show an emerging understanding of the multiples of 2s,5s and 10s (e.g.arrays).
Problem Solving and Reasoning	Solve one and two step problems that involve addition and subtraction, including empty box problems.	Solve one and two step problems that involve addition and subtraction, including empty box problems. Show the method and answer in a	Be able to use manipulatives and pictorial representations to show how to find the solution to addition, subtraction,

	Solve practical problems involving length and time. Solve one step problems involving multiplication and division using concrete and pictorial representations. Solve practical problems involving mass / weight.	variety of ways. Solve one step problems involving multiplication and division using concrete and pictorial representations, including arrays with support. Solve practical problems involving capacity, volume and time. Solve problems involving doubling and halving. Solve problems involving a quarter.	multiplication and division problems in context. Be able to independently use manipulatives and pictorial representations to show how to find the solution to addition, subtraction, multiplication and division problems in context.
Calculations	Addition and Subtraction Begin to represent calculations using symbols for addition (+), subtraction (-) and equality (=). Add and subtract with one digit numbers. Know or derive number bonds to 20 using patterning and concrete objects. Represent and use number bonds and related subtraction facts within 20. Multiplication and Division Use a number line to count in twos. Use counting objects to double and half amounts to 20. Share objects equally by counting how many in each group. Represent multiples of twos and tens in a range of ways, including patterning, counting and grouping. Begin to develop strategies to double and halve quantities (even amounts) Fractions	Addition and Subtraction Add and subtract one-digit and two-digit whole numbers to 20, including zero and using patterning to generate 'new for old' facts. Add and subtract one and two digit numbers in a range of contexts. Develop the idea of part-whole to link addition and subtraction (6 is the whole; 4 and 2 are the parts). Relate numbers to 5 and 10 to develop fluency (6 is one more than 5 , so 5+ 3=8 means that 6 +3 = 9). Multiplication and Division Begin to construct arrays for multiplication using concrete objects and pictorial representations. Use arrays to show commutativity (5 x 2 = 2 x 5). Use multiples of ten to derive multiples of five, using concrete objects, arrays and bar models to support visualisation.	Addition and Subtraction Represent and use number bonds and related subtraction facts with 20, exploring patterning and systems to support a developing sense of number and the embedding of number facts. Add and subtract one and two digit numbers to 20, including zero. Be able to represent the calculations using manipulatives including Diennes, Numicon and Cuisenaire; pictorially using a supported structured number line and their own jottings and pictures; as an abstract 'number sentence'. Solve empty box problems and begin to use the inverse to check. Multiplication and Division Solve one step multiplication and division problems in context, calculating the answer using concrete and pictorial representations.

	Recognise, find and name a half as one of two equal parts of an object, shapes or quantity. Know that halving involved partitioning into two equal parts. Recognise, find and name a quarter as one of four equal parts of an object, shapes or quantity.	Understand that a group of five objects can be treated as one unit of five (the idea of multiples). Fractions Recognise, find and name a half and a quarter as one of two, or four, equal parts of an object, shapes or quantity. Develop the idea of part-whole (fractions show a relationship between equal parts of a whole). Represent using bars independently.	Solve one step multiplication and division problems in context, calculating the answer using concrete and pictorial representations including supported arrays. Fractions Use a range of representations, including such things as a bar made from multi-link, to double, half and quarter quantities. Use comparative language such as half as long, twice as long. Fractions Begin to explore representations for one, two, three and four quarters (objects and shapes with lines of symmetry).
Measurement	Recognise and know the value of different denominations of UK currency. Compare and describe lengths and heights (longer/shorter). Compare and describe time in hours (quicker/slower/ earlier/later). Sequence events in chronological order (before/after/ next/ first/yesterday/today). Tell the time to the hour. Know the days of the week. Compare and describe mass/weight (heavier/lighter). Compare and describe time in minutes (quicker/slower/ earlier/later)	Sequence events in chronological order (times in a day to the hour/yesterday/today). Tell the time to the hour and half past the hour. Draw the hands on a clock face to show these times. Know the months of the year. Compare, describe capacity and volume (full/empty/half full). Measure and record capacity and volume (how many cubes to fill?). Measure and record lengths and heights using non- standard units. Compare and describe time on hours, minutes and seconds.	Compare, describe and record lengths and heights. Extend this beyond the classroom to very long/short and very tall/ short (steps around the playground, multi-link towers to find heights or the length of the giant's footprint). Compare, describe and record mass/ weight; capacity and volume. Use simple recipes and cooking. Link this with the measurement of time when cooking.
Geometry	Recognise and name common 2-D shapes	Recognise and name common 2-D shapes such	Explore common 3-D shapes and their

such as squares, circles, triangles and rectangles. Describe position, directions and movements as half turns.	as common quadrilaterals and different triangles. Be able to say what is the same and what is different about common 2-D shapes. Explore different orientations of the same shape. Recognise and name common 3-D shapes such as cubes and cuboids. Describe position, directions and movements as half, quarter and three quarter turns.	properties, using knowledge of 2-D shapes to describe the faces. Include cuboids, pyramids and spheres. Describe position, direction and movements for ½, ¼ and ¾ turns ~ use a clock to link this with time and a compass to begin to describe direction. Link this to maps using a Beebot.