Y 1,2	Autumn 1 and Spring 2		Autumn 2 and Summer 1		Spring 1 and Summer 2	
My Money Modules	Year A - What are needs and wants Year B - Where does money come from?		Year A - Coins and Notes Year B - How can I keep track of my money?		Year A - Keeping my money safe. Year B - Why is it important to save?	
Times tables	Autumn 1 - x2 Spring 2 – x10	Autumn 1 – x2 Spring 2 – x3	Autumn 2 - x10 Summer 1 – x2	Autumn 2 – x5 Summer 1 – x5	Spring 1 - X2 Summer 2 – x10	Spring 1 – x10 Summer 2 – x3
	Place Value		Multiplication		Fractions	
Key Skills	• I can count up to 50 forwards and backwards. I can start from any number. • I can count up to 100, forwards and backwards. I can start from any number. • I can count beyond 100, forwards and backwards. I can start from any number. • I can write numbers to 20 in numerals. • I can read and write numbers from 1 to 20 in numerals • I can write numbers 1-20 in numerals and words • I can count, read and write numbers to 100 in numerals. • I can order numbers up to 50 and say one more and one less than. • I can describe one more and one less.	• I can count in steps of 2 and 5 from 0, and go backwards. • I can count in steps of ten from any number, forward and backward • I can count in steps of 3 from 0 • I can estimate the number of objects up to 20. • I can estimate numbers on an empty number line • I can round numbers to the nearest 10 • I can identify, represent and estimate numbers in different ways. • I can compare and order numbers of objects up to 20. • I can compare and order numbers up to 100 • I can compare and order numbers from 0 up to 100; use <, > and = signs	• I can double 1, 2, 3, 4 and 5. • I can half 10, 8, 6, 4 and 2. • I can recognise patterns of numbers in the 10x table. • I know doubles to double 10 • I can solve one-step x and ÷ problems using objects and pictures. • I can solve one-step x and ÷ problems using objects, pictures and arrays.	• I know my times table facts for 2's, 5's, 10's • I can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers and reading scales. • I can recall X facts for X2,5,10 and their inverse and use these to deduce other facts. • I can double 10, 20, 30, 40, 50, 60, 70, 80, 90 and know the inverse. • I know doubles of multiples of 5 and 10 up to double 50 and the inverse • I know doubles of multiples of 5 and 10 <double 100 and the inverse • I can read and interpret ÷ = signs • I can solve problems involving multiplication and division, using materials, arrays	• I can recognise, find and name a half in shapes. • I can recognise, find and name a half. • I can recognise, find and name a quarter.	• I can recognise and name the fractions 1/3 and ¼ of a shape, set of objects or quantity. • I can recognise, find, name and write fractions 1/3 and 1/4 • I can find simple fractions of a number and recognise the equivalence of 2/4 and ½. I can compare fractions of amounts. • I can recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity • I can relate fractions and measures e.g. 40÷2=20, and 20 is half of 40 • I can count in halves from 0 to 10. • I can count in halves up to 10 from any number • I can count in quarters up to 10 from any number

	• I can count one more or one less than a 2-digit number. • I can say one more or one less than a number beyond 100 • I can count in multiples of 2 • I can count in multiples of 2s (to 50) and 10s (to 100) and recognise patterns. • I can name represent numbers using objects and pictures. • I can represent numbers on a number line and use equal to, more than, less than (fewer), most, least • I can recognise odd and even numbers • I can begin to understand the place value of tens and ones. • I can use number bonds and related subtraction facts within 20 • I can group objects into 2,5,or 10 to aid counting	• I can compare and order numbers beyond 100 • I can use number facts to solve problems. • I can read and write numbers up to 50 in words and numerals. • I can read and write numbers to at least 100 in numerals and in words • I can read and write numbers beyond 100 in numerals and words • I can recognise the place value of each digit in a two-digit number • I can partition numbers into tens and units • I can partition numbers in different ways e.g. 23 as 20+3 or 10+13 • I can identify odd and even numbers • I can understand the importance of 0 as a place holder. • I can solve problems and explain reasoning		and repeated addition. • I can solve x and ÷ using the 2, 5 and 10 times tables. • I can show that multiplication of two numbers can be done in any order (commutative) and division cannot • I can solve 1 step x and ÷ problems using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. • I can solve x and ÷ problems, using materials, arrays, repeated addition, mental methods, and multiplication and division facts and determine remainders		

Activities and Context	Count objects (pairs of socks, tricycle wheels), pictures, cubes, on number lines, on counting stick etc. Missing number problems. Explore how TO, HTO and ThHTO change when counting in different amounts. Write down What changes and What stays the same. Use Numicon, Place Value tokens and Dienes to represent numbers. Explore what odd and even numbers look like and what happens when you add and subtract them. Regrouping T and O to partition in different ways. Part, Part, Whole diagrams. When revisiting – explore why we use base 10. Try the Simpson challenge – They have 8 fingers/thumbs so would count to base 8, how would this be different. Daily counting stick practise.		Make doubles using cubes. Half by sharing into two equal groups and by grouping into 2s and counting how many. Make arrays using objects, pictures and cubes. Explore arrays in a range of orientations. Use the language of groups of for multiplication and division. Represent division as 10 shared between 2 and how many groups of 2 go into 10. Groups of is very important in KS2 rather than sharing. Explore what changes and what stays the same. Write explanations using Mathematical vocabulary. Use hundred squares to identify times tables patterns. Times tables teaching as outlined in times tables document. Use bar models and relationship triangles. Repeated addition and subtraction on number lines. Use problems with measures, money and time as context. Daily counting stick practise.		Link back to clock faces for half and quarter. Find fractions of real life shapes, pictorial shapes. Explore a range of orientations. Look at shapes with lots of groups where multiple are shaded to make a half or a quarter. Explore equal and non-equal groups and why this is important. Find fractions of objects including real life objects and cubes. Use bar models to link factions of shapes and fractions of numbers. Explore how fractions are written and how this links to shapes. Explore fractions written on a number line. Look at improper and mixed number fractions and how they are the same using diagrams. Compare fractions using diagrams and place on numberlines. Daily counting stick practise.	
Key Vocabulary From EYFS	Number, Count, forwards, backwards, more, less, higher, lower, another, next, numerals, order, biggest, smallest, bigger, smaller, repeating, partition, odd, even, organising, conjecture, convince. Digit, Most, Least, Multiples, Place Value, Number Bonds, Represent, Compare, Order, Greater than, Less than, Equal, Place Holder, ascending order, Baker's dozen, Consecutive, Descending, score, face value, rounding, classify, imagine, express, specialize, generalise		Double, Half, Patterns, Arrays, Groups of, Sharing, multiple, multiply, divide, commutative, remainders, product.		Half, quarter, numerator, denominator, parts, whole, bisect, improper, mixed number fractions, equivalent. Unit fractions,	
	Addition and Subtraction		Measures		Shape and Statistics	
Key Skills	• I can read, write and solve statements involving addition (+), subtraction (–) and equals (=) signs. • I can read and write maths	• I can understand and use the words 'sum' and 'difference' • I can add and subtract numbers using objects. • I can recall and use addition and	• I can compare length, height, mass and capacity. • I can measure length, height, mass, capacity and volume using non-standard measures.	• I can use m/cm; kg/g; °C; litres/ml to the measure. • I can estimate and measure length/height (m/cm); mass (kg/g); capacity (litres/ml) to the	• I can name rectangles, circles and triangles. • I can recognise and name rectangles, squares, circles, triangles, cuboids, cubes, pyramids and spheres.	• I can recognise and name common 2-D shapes in different orientations and sizes for example hexagons and pentagons. • I can identify and describe the

	statements using addition (+), subtraction (–) and equals (=) signs up to 20 • I know the bonds of all numbers to 10 • I begin to know bonds of all numbers to 20 • I can solve one-step problems by adding and subtracting objects. • I can add and subtract one-digit and two-digit numbers to 20, including 0. • I can solve one-step + and - problems using objects and pictures. • I can solve missing number problems.	subtraction facts to 20 fluently, and use related facts up to 100 • I can add and subtract two digits and ones. • I can add and subtract a two-digit number and tens • I can add and subtract two two-digit numbers • I can add three one-digit numbers • I can show that addition of two numbers can be done in any order. • I can show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • I can recognise and use the inverse relationship between + and – • I can recognise and use the inverse relationship between addition and subtraction and solve missing number problems.	• I can measure and begin to record length, height, weight and capacity using standard units of measurement and equipment. • I can recognise different coins and notes • I know the value of different coins and notes • I can say what happened: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening. • I can put events in time order using before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening. • I can order the days of the week. • I can use the days of the week, weeks, months and years. • I know the names and sequence of the months • I know the names of the seasons • I can tell the time to the hour.	nearest appropriate unit. • I can choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit • I can compare and order lengths, mass, volume/capacity and record the results using >, < and = • I know and use the symbols for pounds (£) and pence (p). • I can add and subtract money of the same unit to solve problems. • I can solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. • I can find different combinations of coins that equal the same amounts of money	• I can recognise and name common 2-D shapes in different orientations and sizes. • I know my 'left' and 'right.' • I can describe position, direction and movement, using the terms 'whole' and 'half' turns. • I can describe position, direction and movement using the terms 'quarter' and 'three-quarter' turns. • I begin to interpret simple pictograms where the picture is worth 1 unit. • I can begin to interpret simple tally charts	properties of 2D and 3-D shapes, including the number of edges, vertices and faces • I can identify line symmetry in a vertical line when exploring 2-D shapes. • I can compare and sort common 2-D and 3-D shapes and everyday objects. • I can recognise and name 3-D shapes for example cylinder. • I can describe position, direction and movement, including movement in a straight line and rotation as a turn or as right angles for quarter, half and three-quarter turns • I can use the terms clockwise and anti-clockwise to describe position, direction and movement. • I can order and arrange combinations of mathematical objects in patterns and sequences.

		• I can use the inverse to check my answers. • I can solve problems with + and - involving quantities and measures. • I can solve problems with addition and subtraction using objects and pictures including those with more than one step. • I can begin to solve + and – in columns without crossing boundaries	• I can tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. • I can compare and solve practical problems for time using quicker, slower, earlier and later. • I can measure and begin to record time (hours, minutes, seconds)	• I can tell and write the time to quarter past the hour. • I can tell and write the time to quarter to the hour and draw the hands on a clock face to show these times • I can compare and sequence intervals of time • I can tell and write the time to five minutes and draw the hands on a clock face to show these times • I know the number of minutes in an hour and the number of hours in a day.		• I can explore, describe and explain patterns. • I can interpret and construct simple pictograms, tally charts and block diagrams. • I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • I can ask and answer questions about totalling and comparing categorical data
Activities and Context	Practical addition and subtraction using objects. Recording number sentences. Using bar model and relationship triangles. Balance bars to explore what equals means. Number bonds with objects, pictures, cubes, numicon, dienes, counters and written. Word problems – same surface different deep. Mathematical vocabulary of word problems. Explore why difference means subtraction. Using number lines with different intervals, blank and self-drawn. Exploration of mental strategies from mental maths policy. Moving onto adding and subtracting measures, money, time and data on bar charts. Only introducing column at the end of year 2 – children should be fluent with number lines and mental strategies first. Daily counting stick practise.		Measure using their own representations. Look at Roman units of measure like cubits. Use balance scales and different containers. Use rulers, meter sticks, weighing scales in grams and kg, measuring jugs in ml and l. Explore how different sizes of container can hold the same amount and what it looks like. Lots of work on reading scales as number lines as well as on measuring equipment. Using scales that count in ones, twos, fives and tens. Using scales with numbers written on and with gaps. Adding and subtracting money and measures. Using charts to present data collected on heights, mass etc. Using money in role play. Explore change as the difference between amounts of money. Sorting coins and exploring their shapes.		Explore shapes in different orientations. Look at real life examples e.g. packaging. Explore nets and what shapes make up 3D shapes. Explore a range of sizes. Describe the properties of shapes. Sort shapes by what is the same and what is different. Explore lines of symmetry using mirrors. Make patterns with symmetry. Give directions – link with bee bots and scratch. Link to clock face to explore turns. Making maps and giving directions. Moving shapes. Collect data. Add and subtract data. Explore symmetry and shape in repeating patterns. Daily counting stick practise.	

		Lots of exploration of counting in tens and how many ten ps in one pound and how many pounds in ten pound. Making arrays with coins. Explore calendars and what changes and what stays the same. Fill out diaries and class calendars. Compare different classes time tables. Build their own class time table. Explore patterns on a clock. Have watches to wear. Use stopwatches. Link to science and time activities – present using graphs and answer questions. Fill in missing parts of calendars and time tables. Using number lines to add money and time. Partitioning into pounds and pennies, hours and minutes. Daily counting stick practise.	
Key Vocabulary from EYFS	group, sort, add, subtract, difference, sum. Addition, Subtraction, Equal, Bar Model, Total, Altogether, Commutative, Inverse, Regrouping, equation.	length, longer, shorter, height, taller, shorter, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, Pennies, Pence, minute, First, second, third, fourth, fifth, last, lots, a few, some, same, different, weight, hours, January, February, March, April, May, June, July, August, September, October, November, December, capacity, ordinal number. mass, volume, coins, notes, pounds, pennies, before, after, next, first, today, yesterday, years, months, days, weeks, tomorrow, morning, afternoon, evening, hour, half past, quicker, slower, earlier, later, centimeters, meters, litres, mililitres, grams, kilograms, minutes, seconds, quarter past, degrees Celsius,	circle, square, triangle, cube, cuboid, sphere, diagonal, corners, edges, cylinder, cone, pyramid, left, right, face, hexagon, line of symmetry, octagon, symmetrical, tally, rectangle. 2D, 3D, orientation, pentagon, vertices, vertex, faces, position, direction, movement, quarter, three quarter, clockwise, pictogram, tally, pattern, sequence, heptagon, oblong, tetragon, trigon, anti-clockwise, block diagrams.
Maths Super powers	**Conjecture:** Yr 1 - Predict the next few in a sequence. Begin to work out the 10th in a sequence. Describe what is changing in a sequence. Begin to use age appropriate mathematical vocabulary. Yr 2 - Identify patterns in number sequences and predict what will come next. Describe what is changing and what is staying the same in sequences. Use age appropriate mathematical vocabulary. Begin to explain why. Begin to identify and explain rules when calculating from given examples. **Convince:** Yr 1 - Begin to use mathematical terminology independently. With support, use equipment to aid their explanation. Yr 2 - With the support of a scaffold, write explanations that use mathematical terminology. Select equipment that supports their explanations. **Organise:** Yr 1 - Independently set their own criteria for sorting. Identify when items do not fit their criteria. Begin to understand why grouping can make counting easier. With support, record in a systematic way.		

	Yr 2 - Use venn diagrams which overlap to identify when objects, shapes or numbers belong in multiple groups. Identify mathematical criteria for sorting with increasing independence. Use grouping to make calculations easier. Begin to understand what systematic means and use tables and grids to record. **Classify:** Yr 1 - Describe what is the same about items in a group and what is different from other groups. With support, give explanations for their criteria when sorting. Yr 2 - Begin to explain why some items belong or do not belong in a group. Explain their own choices for sorting using some mathematical vocabulary. Explain why some items belong in multiple groups. Describe what is the same and what is different when looking at groups of numbers e.g odd and even, multiples of 3. **Imagine:** Yr 1 - Select concrete objects and pictorial images to support learning. Use given bar models, relationship triangles and part-part-whole diagrams. Yr 2 - Explain why they have selected concrete of pictorial resources to support learning. Use jottings to support calculations. Independently select resources to support with problem solving and to explain their learning to others. Draw bar models, relationship triangles and part-part-whole diagrams to support with problem solving. **Express:** Yr 1 - Talk about maths problems with an adult and with their peers. Use different resources and representations. Yr 2 - Present a problem and its solution to adults and their peers. Ask mathematical questions. **Specialise:** Yr 1 - Begin to prove/disprove given rules by testing examples with support. Yr 2 - Begin to prove/disprove given rules by testing examples. **Generalise:** Yr 1 - Begin to explain rules using sometimes, always, never questions. Yr 2 - With some support, identify rules for times tables, shape names, finding fractions, adding and subtracting odd numbers. Use a scaffold, to record rules.
Possible books to support teaching. From EYFS	One is a snail and ten is a crab by April Pulley Sayre, 100 hungry monkeys by Masayuki Sebe, 100 days of cool by Stuart J Murphy, Alien Even and Alien Odd by Kathleen L Stone, The greatest gymnast of all by Stuart J Murphy, Senefer by Beatrice Lumpkin, Everyone can learn Math by Alice Aspinall. A place for zero by Angeline Sparagna Lopresti, How many legs by Kes Grey, Footprints in the snow by Michael Dahl, Monarch Migration – counting by 10s by Megan Atwood, All the little one and a half by Mary Murphy, Penguin Place Value by Kathleen L Stone, None the number by Oliver Jeffers, Zero by Kathryn Otoshi, The shopping basket by John Burningham, Uno's garden by Graeme Base, Mathews sunshine bakery by Kathleen L Stone, Twice my Size by Adrian Mitchell, The doorbell rang – Pat Hutchins, Grandma's quilts by Kathleen L Stone, Have you seen my Monster? By Steve Light, Square Bear by M.W.Penn, Tangram cat by Maranke Rinck, The Monster Diaries by Luciano Saracino, The Great Pet Sale, Equal Schmequal by Virginia Kroll, The best food in the Forest by Mi-ae Lee. One hundred hungry ants by Elinor J Pinczes, How many Jelly beans by Andrea Menotti, A remainder of one by Elinor J Pinczes, Just a second by Steven Jenkins, How big is a Million by Anna Milbourne, Mr Base Ten invents Mathematics by Bethanie H Tucker, Sir Cumference and all the Kings Tens by Cindy Neuschwander, Sir Cumference and the round abouts battle by Cindy Neuschwander, The Great Graph contest by Loreen Leedy, Lemonade for Sale by Stuart J. Murphy, Math at the Art Museum by Group Majoongmul, How big was a dinosaur by Anne Milbourne, How high is the sky by Anne Milbourne, How deep is the Ocean by Anne Milbourne.