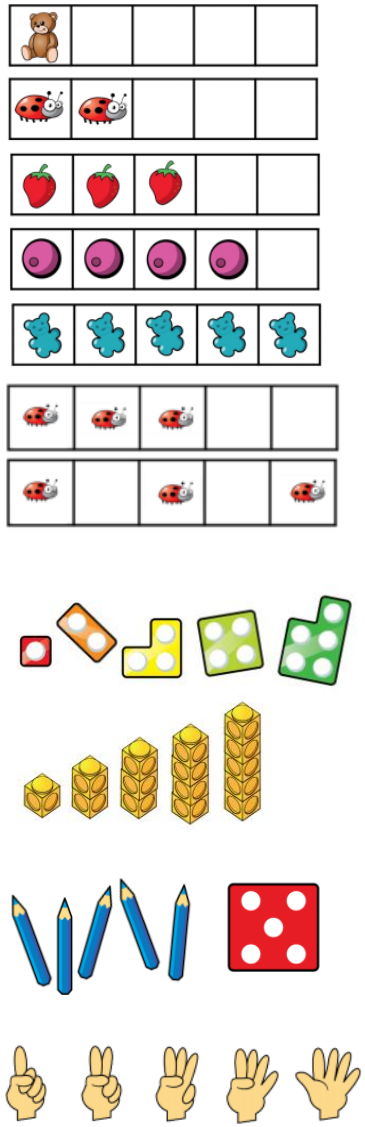
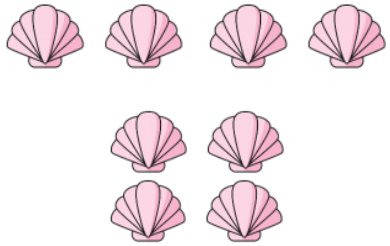
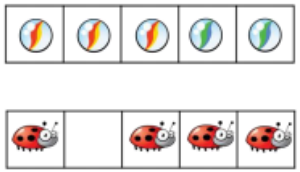
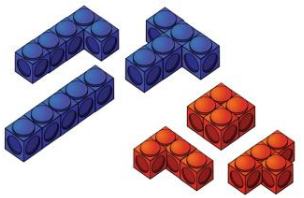
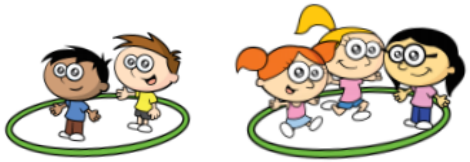
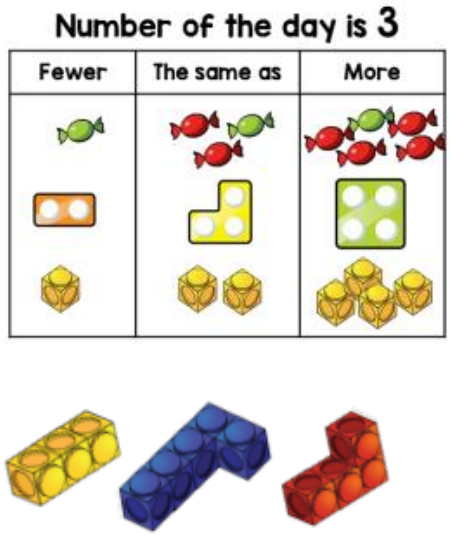
Mathematics Curriculum Progression for Year R

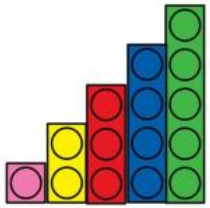
Term	Topic	Knowledge and Skills	Methods and Visual Representations	Vocabulary
1 & 2	Number and Place Value: Numbers to 5	Recite numbers in order to 5. Be able to say number names in a stable order. Be able to count forwards and backwards to 3. Be able to count forwards and backwards to 4. Be able to count forwards and backwards to 5. Know that numbers identify how many objects are in a set. Be able to say the total number in a group. Understand that the final number said is the total in the group. Estimate how many objects they can see and check by counting them. Be able to subitise numbers up to 5. Count up to three or four objects by saying one number for each item. Count an irregular arrangement of up to five objects. Be able to count up to five objects in different arrangements by touching each object as counted. Realise not only objects, but anything can be counted, including steps, claps or jumps. Count actions or objects which cannot be moved. Be able to say number names in a stable order.		numbers 1-5, zero, number, none, zero, count, ones compare, same as, different from, more, less, bigger, greater, fewer, smaller, biggest, largest, greatest, smallest, fewest, least

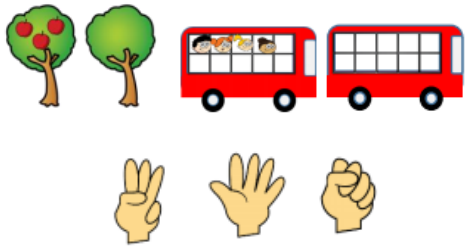
		Count out up to five objects from a larger group. Be able to count out up to five objects from a larger set. Be able to represent up to five objects on a five frame. Understand that when a five frame is full there are five.	 The Three Bears The Three Billy Goats Gruff The Three Little Pigs Three Blind Mice  Five little speckled frogs Five little ducks Five currant buns  	

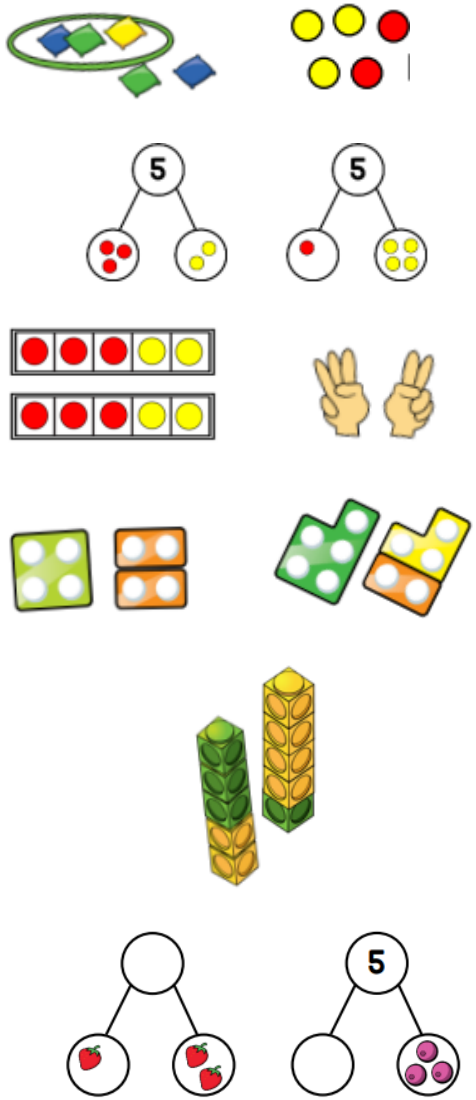
1 & 2	Addition and Subtraction: Sorting	Separate a group of three or four objects in different ways, beginning to recognise that the total is still the same. Understand that collections of objects can be sorted into sets based on a variety of attributes (colour, size, shape etc.). Be able to identify "same" and "different". Use the language of "more" and "fewer" to compare two sets of objects.	  	compare, same as, different from, more, less, bigger, greater, fewer, smaller, biggest, largest, greatest, smallest, fewest, least

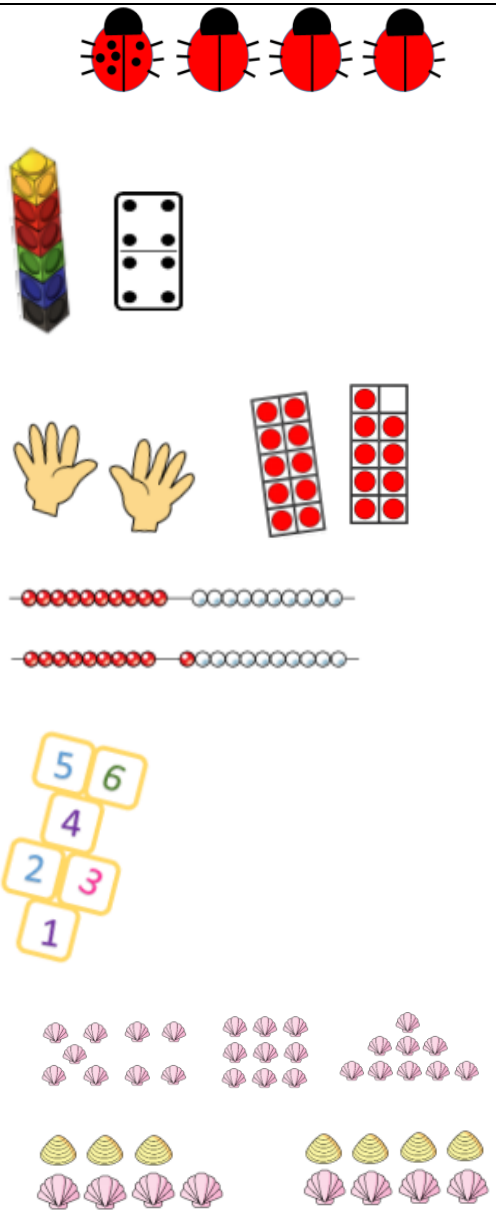
1 & 2	Number and Place Value: Comparing Groups	Recognise numerals 1 to 5. Be able to link names of numbers, their value and their position in the counting order. Be able to count sets carefully. Know that numbers identify how many objects are in a set. Compare two groups of objects, saying when they have the same number. Count an irregular arrangement of up to 5 objects. Be able to compare identical objects. Be able to compare non-identical objects. Be able to link names of numbers, their value and their position in the counting order. Be able to count sets carefully. Use the language of "more" and "fewer" to compare two sets of objects. Be able to compare identical objects. Be able to compare non-identical objects. Be able to line items/objects up to make direct comparisons. Be able to use five frames to support direct comparisons. Understand that when making comparisons a set can have more, fewer or the same number of items as another set.		compare, same as, different from, more, less, bigger, greater, fewer, smaller, biggest, largest, greatest, smallest, fewest, least numbers 1-5

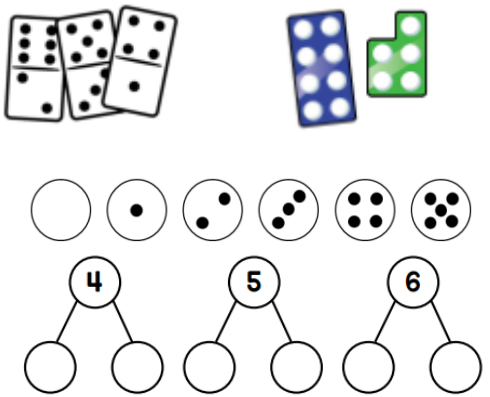
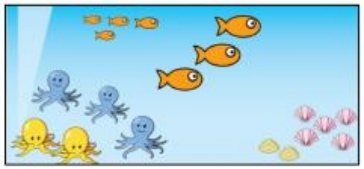
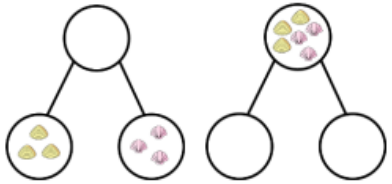
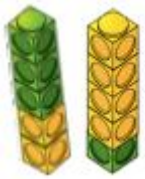
			 Number of the day is 3 Fewer The same as More	

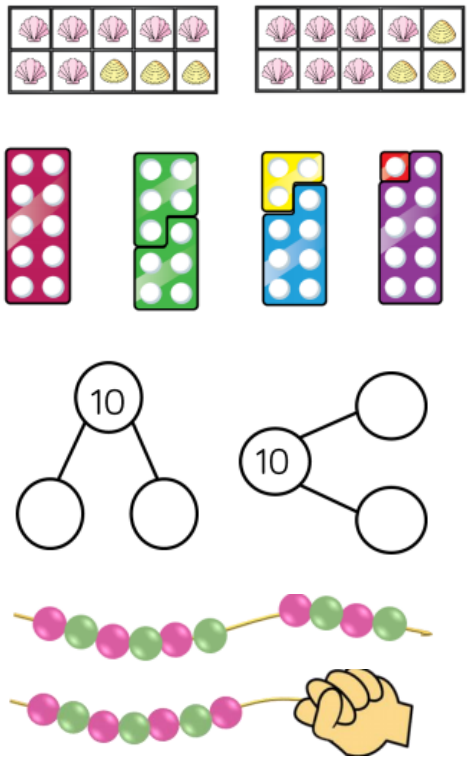
1 & 2	Addition and Subtraction: Change Within 5	Says the number that is one more than a given number. Finds one more from a group of up to five objects. Be able to find out one more than a number up to 5. Be able to use a five frame to represent numbers and then make one more. Understand that one more than a number is the next number they say when counting. Finds one less from a group of up to five objects. Be able to find out one less than a number up to 5. Be able to use a five frame to represent numbers and then make one less. Understand that one less than a number is the next number they say when counting backwards.	 The Gingerbread Man- Traditional Tale The Enormous Turnip- Traditional Tale The Very Hungry Caterpillar- Eric Carle  One less | My number | One more	add, more, and, make, sum, total, altogether, take away, left, left over, less, fewer numbers 1-5

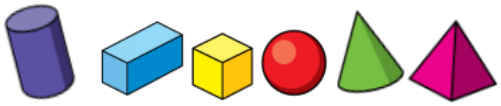
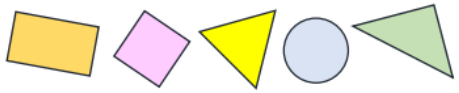
1 & 2	Measurement: Time	Uses everyday language related to time. Be able to use positional language to describe when events happen. Be able to use the vocabulary appropriate to describe when relative events happen. Orders and sequences familiar events. Be able to order important times within a day. Be able to use positional language to describe when events happen. Be able to develop a sense of time. Measures short periods of time in simple ways. Be able to begin to measure time in simple ways.	 The Bad-Tempered Ladybird- Eric Carle The Very Hungry Caterpillar- Eric Carle A second is a hiccup- Hazel Hutchins Peace at last- Jill Murphy Alfie at Nursery School- Shirley Hughes 	time, day, week, days of the week, birthday, holiday, morning, afternoon, evening, night, bedtime, dinner time, lunch time, playtime, today, yesterday, tomorrow, before, after, next, last, now, soon, early, late, quick, quicker, quickest, quickly, slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, longer, less, hour, o'clock, clock, watch, hands
3 & 4	Addition and Subtraction: Numbers to 5	Recognise numerals 0 to 5. Select the correct numeral to represent 0 to 5. Understand that the name "zero" and the symbol "0" represent "nothing there". Understand that "0" is one less than one. Find the total number of items in two groups by counting all of them. In practical activities and discussions, begin to use the vocabulary involved in addition and subtraction. Understand that numbers can be made by combining smaller numbers, including zero. Be able to explore the composition of numbers to 5.	  5 Little Men in a Flying Saucer  5 Little Ducks 10 in the Bed	add, more, and, make, sum, total, altogether, take away, subtract, left, left over, less, fewer numbers 1-5, zero

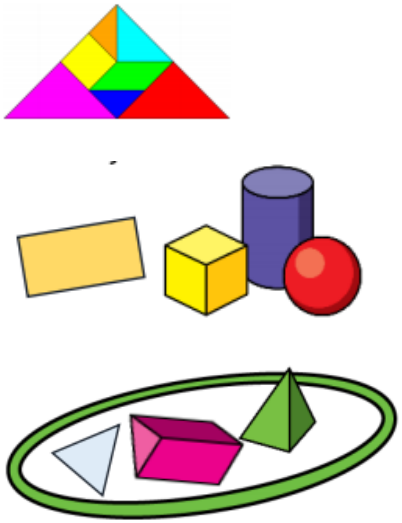
		Understand that the 5 frame is useful to represent the different parts which combine to make the whole. Understand that the part-whole model is useful to represent the different parts which combine to make the whole. Record, using marks they can be interpreted and explained. Be able to record using mathematical jottings.		

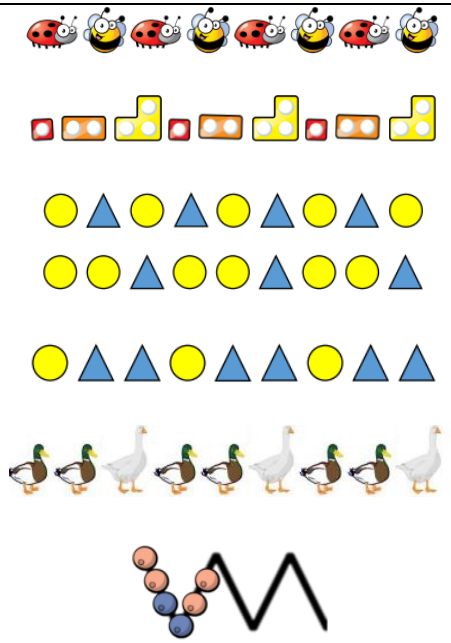
3 & 4	Number and Place Value: Numbers to 10	Recite numbers in order to 10. Be able to say number names in a stable order. Be able to count forwards and backwards to 6, 7 and 8. Be able to count forwards and backwards to 9 and 10. Count objects to 10. Count an irregular arrangement of up to ten objects. Be able to count up to ten objects in different arrangements by touching each object as counted. Know that numbers identify how many objects are in a set. Be able to say the total number in a group. Understand that the final number said is the total in the group. Estimate how many objects they can see and check by counting them. Be able to subitise numbers up to 8. Be able to subitise numbers up to 10. Understand that placing objects onto a ten frame can support when subitising. Understand that the ten frame is full when there is ten. Count out up to six objects from a larger group. Be able to count out up the required number of objects from a larger set.		numbers 1-10, zero, number, none, zero, count, ones compare, same as, different from, more, less, bigger, greater, fewer, smaller, biggest, largest, greatest, smallest, fewest, least

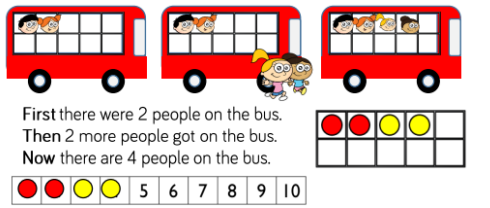
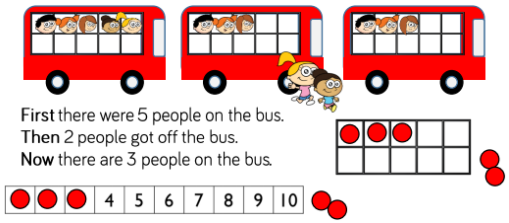
		Use the language of "more" and "fewer" to compare two sets of objects. Be able to make comparisons by lining items up to compare directly or by counting carefully and comparing their position in the counting order. Understand that when making comparisons a set can have more, fewer or the same number of items as another set.		
3 & 4	Addition and Subtraction: Addition to 10	Find the total number of items in two groups by counting all of them. Say the number that is one more than a given number. In practical activities and discussion, begin to use the vocabulary involved in adding and subtracting. Be able to combine two groups to find how many altogether. Understand that a part-whole model can be used to show the relationship between the parts and the whole. Be able to explore number bonds to 10 using a ten frame. Understand that ten frames can be filled in different ways (5-and-a-bit structure, pair structure). Be able to use the part-whole model to explore number bonds to 10. Be able to work with the part-whole model in different orientations.	   	add, more, and, make, sum, total, altogether numbers 1-10, zero

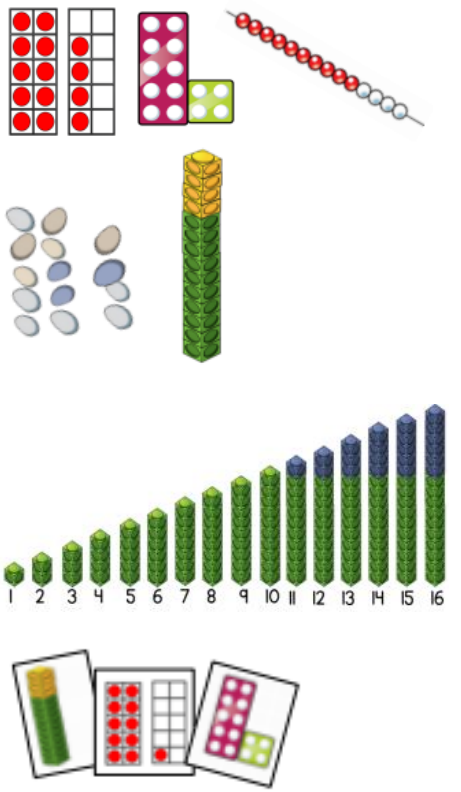
			 10 10	

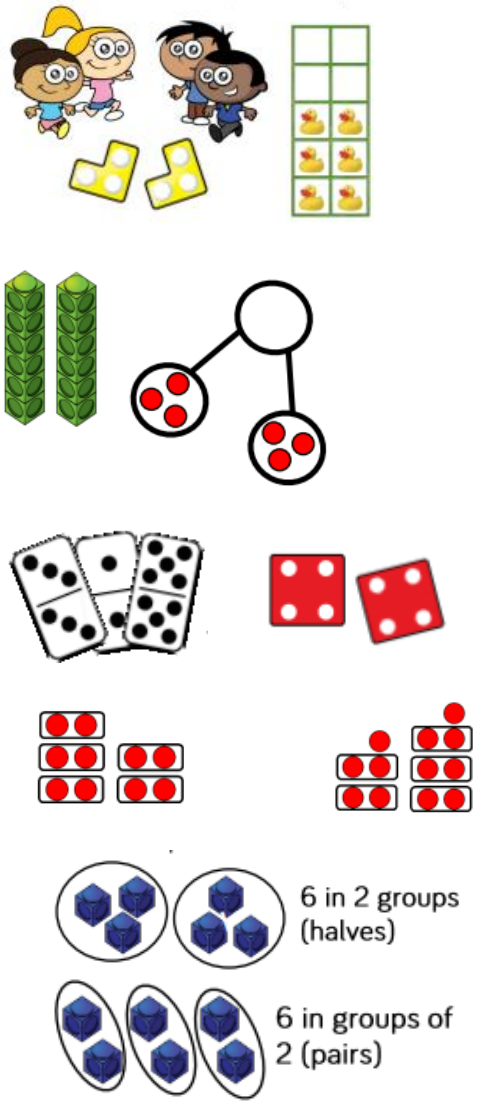
3 & 4	Geometry: Shape and Space	Use positional language. Show an interest in space by making arrangements with objects. Describe a relative position such as "behind" or "next to". Be able to begin using positional language to describe how items are positioned in relation to other items. Show an interest in shape by playing with shapes and taking part in sustained construction activity. Show an interest in shapes in the environment. Use shapes appropriately for tasks. Begin to discuss the shapes of everyday objects. Begin to use mathematical names for "solid" 3D shapes and "flat" 2D shapes. Begin to use mathematical terms to describe shapes. Select particular named shapes. Use familiar common shapes to create and recreate patterns and build models. Know the names of common 3D shapes. Be able to explore similarities and differences between 3D shapes. Be able to sort 3D shapes according to observable features. Know the names of common 2D shapes. Be able to recognise common 2D shapes in different orientations.	 We're Going on a Bear Hunt - Michael Rosen Rosie's Walk - Pat Hutchins Little Red Riding Hood - Traditional Tale Mrs Wishy-Washy - Joy Cowling Me on a Map - Joan Sweeney     	position, over, under, above, below, top, bottom, side, on, in, outside, inside, around, in front, behind, back, front, beside, next to, opposite, apart, between, middle, edge, corner, direction, left, right, up, down, forwards, backwards, sideways, across, close, near, far, along, through, to, from, towards, away from, movement, slide, roll, turn, stretch, bend, whole turn, half turn shape, pattern, flat, curved, straight, round, hollow, solid, sort, make, build, draw, size, bigger, larger, smaller corner, side, rectangle, square, circle, triangle face, edge, vertex, vertices, cube, pyramid, sphere, cone

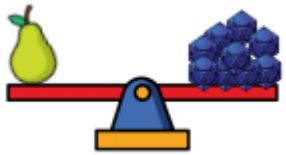
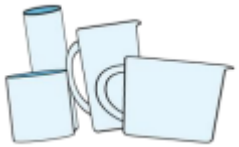
		Be able to compare 2D shapes. Be able to explore how shapes can be combined or partitioned to make new shapes.		

5 & 6	Geometry: Exploring Patterns	Use familiar objects and common shapes to create and recreate patterns. Be able to copy, continue and create simple repeating patterns (focus on AB and ABC). Be able to explore patterns using shapes, colours, sizes, actions, sounds. Be able to build patterns both vertically and horizontally. Be able to copy, continue and create more complex repeating patterns (e.g. ABB, AAB, AABB, AABBB).		draw, size, bigger, larger, smaller, pattern, repeating, match

5 & 6	Addition and Subtraction: Count On and Back	Say the number that is one more than a given number. Find one more or one less from a group of up to ten objects. Be able to recognise that the quantity of a group can be changed by adding more. Be able to recognise that the quantity of a group can be changed by taking items away. In practical activities and discussion, begin to use the vocabulary involved in adding and subtracting. Be able to use the "first, then, now" structure.	   	add, more, and, make, sum, total, altogether, take away, subtract, left, left over, less, fewer numbers 1-10, zero first, now, then

5 & 6	Number and Place Value: Numbers to 20	Recite numbers in order to 20. Be able to say number names in a stable order. Know the number names in order. Count objects beyond 10. Be able to count beyond 10. Know that numbers identify how many objects are in a set. Select the correct numeral to represent 1 to 20 objects. Be able to match number names to quantities and symbols. Say the number that is one more than a given number. Be able to recognise that as we count, each number is one more than the number before.		numbers 1-10, zero, number, none, zero, count, ones compare, same as, different from, more, less, bigger, greater, fewer, smaller, biggest, largest, greatest, smallest, fewest, least

5 & 6	Multiplication and Division: Numerical Patterns	Be able to solve problems including doubling, halving and sharing. Understand that double means "twice as many". Be able to double quantities. Understand that half means "sharing into two equal groups". Be able to halve quantities. Understand that quantities which can be shared into two equal groups with no items left over are even. Understand that quantities which can be shared into two equal groups with one item left over are odd. Be able to group quantities in pairs.		sharing, halving, doubling, equal, groups

5 & 6	Measurement: Measure	Orders two or three items by length or height. Be able to use language to describe length and height. Be able to make direct comparisons. Be able to use the language of comparison. Be able to make indirect comparisons using identical objects (e.g. blocks or cubes). Orders two items by weight or capacity. Be able to use language to describe weight. Be able to make direct comparisons. Be able to use the language of comparison. Be able to use balance scales to make indirect comparisons using identical objects (e.g. cubes or beads). Be able to use language to describe capacity. Be able to make direct comparisons. Be able to use the language of comparison. Be able to make indirect comparisons using identical objects/tools (e.g. pots or ladles).	   	measure, size, compare, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the same as, just over, just under length, height, width, depth, metre, long, short, tall, high, low, wide, narrow, thick, thin, longer, shorter, taller, higher, longest, shortest, tallest, highest, far, near, close weigh, balances, heavy, light, heavier than, lighter than, heaviest, lightest, scales full, empty, half full, holds, container