

Ducklings Mathematics Overview

Maths This involves providing children with opportunities to practise and improve their skills in counting numbers, calculating simple addition and subtraction problems as well as describe shapes, spaces, and measures.

6 Key areas of Early Mathematical Learning: Cardinality and Counting, Comparison, Composition, Pattern, Shape and Space, Measures

<https://www.ncetm.org.uk/resources/52500>

ELG 11 Numbers: • Children count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number • Using quantities and objects, they add and subtract 2 single-digit numbers and count on or back to find the answer • They solve problems, including doubling, halving and sharing

ELG 12 Shape, space and measures: • Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems • They recognise, create and describe patterns • They explore characteristics of everyday objects and shapes and use mathematical language to describe them

Daily/ Weekly **non-negotiable** objectives and activities:

- Share the today's date with the children- children to take ownership over date to recognise days of the weeks and order of months and link these to the short date. **(daily)** Short date to be written on whiteboards alongside continuous provision activities.
- To use and display vocabulary related to time and to discuss times in a day e.g. playtime, lunchtime, home time **(daily)**
- A number of the week needs to be displayed. In this display, the number name and different representations for the digit needs to be included. The number of the week needs to be shared with parents and an activity linked to number of the week needs to be sent home to practice. Number display to be photographed and kept in book for children to reflect on.
- Learning the correct number formation. **(Daily practise through modelling and scaffolding)**
- Hearing/ learning a variety counting rhymes and song - **Traditional Nursery Rhymes and action and maths rhymes to be sung regularly throughout each week and varied to ensure that children hear and sing a wide range.**
- Opportunities for children to count **individually** included in daily routine.
- Ten frames & Numicon to always be accessible to children through meaningful activities
- Interactive maths game always to be planned in for continuous provision on classroom ICT.
- **Maths area to reflect current learning.**
- Number talks to take place **(3 times a week)** and evidence collected in a number talk class book which the children can access in their maths area.
- Promote enjoyment of maths through adult lead maths games
- Children to have chance to practice 1:1 with an adult counting reliably numbers from 1 to 20, with the progression to recognising numbers 1-20 and finally writing numbers 1-20 **(at least once a week - record of progress and misconceptions to be kept)** including number words.
- Build it, draw it, Say it, Write it working wall to be displayed and **changed to reflect learning of the day.** Equivalent child mats to be accessible for children to practise in maths area.
- Maths books, including counting to 100 books, to be displayed.

<https://www.ncetm.org.uk/resources/52060>

All about Me!- Autumn A- Maths		
Week	Key focuses	Mathematics coverage and key resources an activities
1	Settling in Observations PSED Independent activities set up in all areas of learning.	Children to be familiarised with calendar and encouraged to put correct day/ date/ season etc. Counting to be included as part of daily routine. Introduce number of week display and children to have resources available to match display. Children to have access to a variety of number activities. Children to all have opportunity to share number knowledge 1:1 with an adult throughout week - this will be used to inform future planning. Children to be familiarised with resources in their maths area and modelled how to access resources and put away.
2	Recognising numbers to 10 Learning to write numbers to 10.	Matching numbers 1-10, for example keys with padlocks. Exploring and finding numbers in a multisensory way. Encouraging children to arrange numbers in order. Share a counting to 10 story. Model subitising by using dice, dot cards etc- reinforce through Number Talks. Expose children to dice faces, structured manipulatives and encourage them to say the quantity represented. Children need opportunities to see small numbers within a larger collection. 'Number talks' allow children to discuss what they see. For instance, with giant ladybirds: 'There are 5 spots altogether. I can see 4 and 1, I can see 3 and 2, and I can see 1 and 1 and 1 and 1 and 1.' Play hidden object games where objects are revealed for a few seconds: for example, small toys hidden under bowl - shuffle them, lift the bowl briefly and ask how many there were. Play games such as 'All at once fingers' show me 4 etc
3	Counting up to 10 objects reliably Repeating patterns.	The Hungry Caterpillar: Counting of the items the caterpillar eats. Children to have other sets of objects which the caterpillar eats for the children to count reliably - Move items around and check children understand that the amount has not changed. Use puppets to spread out items or push together etc. Use 10 frames alongside activities which encourage children to organise objects to make them easier to count. Expose children to organised models of number representations such as the dice. Play lots of dice games and card games. Children to make repeating patterns using fruits / food from story. Children to continue a pattern first and then develop creating their own patterns. Encourage discussion about what element is creating the pattern e.g colour, fruit type, shape etc. Focus on continuing an AB pattern. Extend patterns using identical objects in different colours eg bears, vehicles, dinosaurs.

4	<p>Understanding that numbers identify how many objects are in a set.</p> <p>Counting to 10 and beyond, in order</p>	<p>Handa's Surprise: Children associate numbers to a set of objects for example: filling labelled containers with correct numbers of items; building towers of blocks and comparing; using ten frames and Numicon. Play dice games to collect a number of things. Children to experience counting intangible items such as counting sounds or actions.</p>
5	<p>Matching numerals to quantities.</p>	<p>Look at different texts including The Enormous Turnip and Little Red Hen: Children to have opportunities to match numerals to quantities from objects in book. Children to create own art work and use numerals to describe pictures. Provide number books for reading.</p>
6	<p>Finding 1 more than, 1 less than a quantity or number.</p> <p>Tally charts. Explore immediate environment and use mathematical language (including 2D shapes) to describe it.</p>	<p>Children to go on an autumn walk to see how the school grounds are changing: Children to use vocabulary prompts to encourage discussion about what they can see. Make reference to quantity, size, position and shape. Children to collect items from walk and tally them, write totals and then add 1 more or 1 less to each group. Children to make constructions and pictures and select shapes which will fit when rotated or flipped in insert boards, shape sorters and jigsaws .Opportunities to be within continuous provision such as printing and making pictures using shapes. Children to have opportunities to construct and create things that represent objects in their environment. Encourage children to notice shape properties and think about the appropriateness of the shapes they use.</p>
<p>All about Me!- Autumn B- Maths</p>		
<p>Week</p>	<p>Key focuses</p>	<p>Maths coverage and key resources and activities</p>
<p>1 NB Diwali 27th October</p>	<p>Recognise and describe 2D shapes.</p> <p>Creating patterns with 2D shapes.</p> <p>Order numbers to 10</p>	<p>The Story of Diwali: Children to create Rangoli patterns - shapes with written names to be accessible. Children need opportunities to move both themselves and objects around, so they see things from different perspectives. This will support them in visualising how things will appear when turned around and imagining how things might fit together. Children to name & describe shapes whilst looking at 2D pictures of temples. Compare to other buildings in their own environment. Language related to shapes to be displayed. Children to have opportunities to count objects and match numerals, sequence from 0 to ten, ensure children understand 0 as nothing. Children to say number names as they sequence numerals. Have numerals in the environment eg socks on a washing line to sequence.</p>

<p>2 NB Bonfire Night 5th November</p>	<p>To recite the number names in order to 10 and back, starting from a given number</p> <p>Addition-adding numbers together to find the total in 2 sets</p>	<p>Children to do countdowns for fireworks. Children make own firework rockets and countdown their launches. Start from different numbers. Count backwards for example in number rhymes. Use number track to support counting from different numbers forwards and backwards.</p> <p>Children need opportunities to partition a number of things into two groups, and to recognise that those groups can be recombined to make the same total. Encourage children to say the whole number that the 'parts' make altogether. Link to fireworks - Use 10 frames, bar models to add two amounts. Provide lots of opportunities within continuous provision to add two groups of objects and model vocabulary for addition such as altogether, total etc.</p>
<p>3 NB Remembrance Day 11th November</p>	<p>Counting up to 20 objects.</p> <p>To compare two quantities saying who has 'more' or 'less'</p>	<p>Use counting figures to make amounts 1 - 20.</p> <p>Create a Numicon numberline. Introduce diennes to represent numbers up to 20. All visual representations need concrete manipulatives to count and support understanding. Ensure children say 'teen' not 'ty'.</p> <p>Count poppies on a screen which cannot be moved. Ask children to compare two groups and say which has more and which has less, ask how they know. Children learn to convert two unequal groups into two that have the same number eg 'There are 6 poppies in one box and 2 in another; can we make the boxes equal?</p>
<p>4</p>	<p>To count on from a given number saying the 'next' number to any given number</p> <p>To say the number 'after' a given number (up to 10)</p> <p>To say a number 'before' a given number</p>	<p>Link to maths- Counting rhymes- eg. 5 current buns, 5 little men, 5 little monkeys, 5 fat sausages. Children to retell rhymes using the number of sausages etc Practical contexts to support understanding that the next number is one more, eg seats on a bus and one more child will get on, how many? One child gets off the bus, how many? Have a numberline to find the number started with and the number that is next or before it.</p>
<p>5</p>	<p>To begin to use the vocabulary related to money.</p> <p>To begin to recognise and sort coins</p>	<p>Introduce the idea that we need money to buy things. Discuss things that their parents may buy in the lead up to Christmas. Children to have a Christmas shop roleplay area and coins up to 10p to pay for decorations and toys. Children to hold real coins and find the 1 and 2 on a copper coin and the 5 and 10 on the silver coins. Ask children which they think they will be able to buy more with and why. Children sort coins by their denominations into pots that are labelled, 1p, 2p, 5p, 10p.</p>

6	To begin to use vocabulary related to time and to discuss times in a day e.g. bedtime, dinnertime	Children will talk about the routines of their day. Have pictures of key events during the day and children have to unmuddle them, talking about which activity they do first, next etc. Key questions to be asked about the pictures: Tell me about this picture. Tell me about what you have done. Which of these things do you do in the morning? Which do you do first? Which of these things do you do in the afternoon? Which of these things do you do in the evening? Children to be encouraged to use the vocabulary related to time.
7	Using shapes to make models and pictures	Link to Christmas card making. Printing to make own Christmas wrapping paper. Children to make Christmas related items using shapes - language to be displayed. Draw children's attention to specific properties by using specific language in everyday situations, while children may use informal language. Properties can include: • curvedness • numbers of sides and corners (2D) or edges, faces and vertices (3D) • equal sides • parallel sides • angle size, including right angles • 2D shapes as faces of 3D shapes. Reinforce that properties of shapes are consistent despite size.

Fairy Tales Spring A- Maths		
Week	Key focuses	Maths coverage and key resources and activities
1	Comparing the height of two or three objects and use the language of height comparison Matching, naming and sorting 3D shapes Using shapes to make models and pictures	Introduce the fairy tale- 3 Little Pigs Children will compare heights of different objects and verbally begin to use more specific terms such as 'taller than', 'shorter than'. Ensure children align the starting points and compare like for like. Children will compare the height of the houses from the story and own house built from 3D shapes Build own houses out of 3D shapes and model vocabulary of shape names, faces, edges and vertices. Children make pictures of animals (pigs, wolfs) and scenery (trees, houses) out of 2D shapes. Ask children about their representations and encourage comparisons such as 'ball shaped, or house shaped. Children begin to discriminate between shapes using informal language eg fat

		triangle and a pointy triangle. With shapes such as triangles and rectangles ensure children see a range of examples and the same shape in different orientations as well as different sizes, colours and materials..
2	<p>Ordering objects according to size</p> <p>To compare two quantities saying who has 'more' or 'less'</p> <p>To say the number 'more' and 'less' than a given number</p>	<p>Fairy tale- Goldilocks</p> <p>Choose items from story such as the bowls, chairs and spoons and get children to order objects according to size.</p> <p>Make bowls of porridge by using cooking cups to measure the porridge and milk and use the language of more and less. Order the amounts.</p> <p>Count spoonfuls and ask for the number 'more' and 'less' create an engaging script with actual porridge so that the children can rehearse.</p>
3	<p>Counting to 20 objects</p> <p>To order numbers to 20</p>	<p>Fairy tale- Red Riding Hood</p> <p>List- what to take in the basket to Grandma's house Count the objects into Grandma's basket. Ask questions such as if we add one more apple how many things are in the basket now? Count how many objects are in different baskets- model how to organise items to count reliably. Children to count out from a larger group up to 20 objects. Ensure accurate 1-1 correspondence. Reinforce through number talk. Use number lines and have numbers to 20 on, turn a number around and ask the children what the number is, how do they know? Build numbers out of Diennes and Numicon alongside manipulatives. Post it note number line for children to stick numbers on to 20.</p>
4	<p>To use the vocabulary related to money</p> <p>To recognise and sort coins</p> <p>To add 1 or 2 to a number up to 10 and recognise addition as counting on (one/ two more)</p>	<p>Fairy tale- Gingerbread Man</p> <p>Set up a sweet shop. Children to match coins for amounts that involve all coins. Children will understand that 2p is the same as two 1p's etc. Using different combinations of coins to find a given total such as 10p. Children will recognise coins from 1p up to £1.</p> <p>Using the numberline to model adding on 1 or 2. Place no.s 1 to 12 on washing line. Count 8 pennies into a tin or money box. Point to 8 on the line. I'm going to put 2 more pennies into the tin. How many will there be then? What is 8 and 2 more? He the one more/one less Children will have opportunities to see and begin to generalise the more than/less than relationship between sequential numbers and use this knowledge to recognise when a quantity does not match the number eg a box of crayons is labelled 5 but contains only 4i crayons, the children will be able to identify this is not right.</p>
5	<p>To recite the number names in order to 20 and back, starting from a given number</p> <p>To sequence familiar events</p>	<p>Fairy tale- Cinderella/ Snow White/Rapunzel</p> <p>Daily count forwards and backwards from any number between 0 to 20. When counting begin to extend counting to larger numbers including crossing boundaries 19/20 29/30. Children will have opportunities to practise counting both inside and outside. Count non-moveable objects such as actions.</p>

		Children will sequence days of the week and months of the year. Children will describe sequences by re-telling stories. O'clock times will be discussed at registration, lunchtime, tidy-up time etc. Children will learn months of the year and identify which month their birthday is, and children's birthdays will be sequenced from January to December.
6	<p>Sorting objects into different groups.</p> <p>Developing vocabulary to describe shapes</p>	<p>Ensuring that when providing groups to compare, there are some that have an equal amount. Ask children to convert two unequal groups into two that have the same number. Eg there are 6 mice in one sack and 2 in another. Can we make the sacks have an equal amount? Sort objects/shapes into two groups by criteria such as triangles/rectangles or by number of sides etc.</p> <p>Use a feely bag to show part of a shape and get children to say which shape they think it is and why. Children to be supported to use correct vocabulary eg sides, corners. Shapes will be covered in foil and children to be invited to justify their guesses about what is inside. Children to be prompted to use vocabulary for the properties of the shapes.</p>

Fairy tales- Spring B- Maths		
Week	Key focuses	Maths coverage and resources
1	<p>To recognise numbers to 20 and beyond.</p> <p>To count reliably to 20 and beyond.</p> <p>Count in patterns of 2's, 5's, and 10's</p>	<p>Fairy tale- Jack and the beanstalk</p> <p>Count beans to 20 into a seed packet then and count as they 'plant' them in soil. Plant 2 in a pot, 5 in a pot etc. Count beyond 20 beginning from a given number ensure counting bridges boundaries. Identify pattern of the numerals.</p> <p>Use of number lines to support counting in multiples of 2's/5's/10's. Children to use socks on a line to count in twos, and Noah's Ark to count animals.</p> <p>Use 100 square to support counting in patterns of 2's, 5's, and 10's. Daily number songs to be sung that involve counting in 2's, 5's and 10's.</p>
2	<p>Count on and back holding the biggest number in our head.</p>	<p>Jasper's Beanstalk</p> <p>Number lines to help support counting on and back by holding the biggest number in their head. Children to correct the puppet when he makes a mistake with his counting and say what he did wrong.</p> <p>Construct beanstalks with toilet tubes add numbered leaves, have some beanstalks that can only have leaves that are numbered in increments of 2's, 5's, 10's as well as 1's.</p>

	To use non-standard and introduce standard measurement	<p>Measure water needed to water beanstalk using cups as a non-standard measure. Provide a range of jugs and measuring cylinders for children. Children to compare tall thin containers and short fat containers that hold same capacity to address misconception that taller containers hold more.</p> <p>Measure height of beanstalks using standard (rulers/tape measures) and non-standard measures (Giant's feet and children's feet) .</p> <p>Encouraging children to compare different attributes in everyday situations: 'I wonder who has the longest snake?' 'I wonder whose pot will hold the most water.' 'I wonder which ball is the heaviest?', Cutting a piece of ribbon as long as a child's arm and encouraging them to find things in the environment that are longer, shorter or the same length.</p>
3	<p>Recite numbers to 20 and beyond and back to 0.</p> <p>Order numbers according to their value.</p> <p>To tell the time to the o'clock</p> <p>.</p>	<p>The Jolly Postman</p> <p>Use a road with house numbers for children to count to 20 and beyond in 1's, 2's, 5's, 10's. Children to look at a number line with numbered washing on, turn four numbers over, which numbers are missing? How do you know? Children will count things of different sizes to help them focus on the numerosity of the count. Children will count things that cannot be moved such as pictured on a screen, also they will count things that cannot be seen such as sounds. Children will order numbers forwards from 0-20 and also backwards from 20-0. Numicon, bead strings and objects to be provided as well as visual representations.</p> <p>Discuss different times from the story. Children to match a time to an event in the book. Use the clocks to practice making o'clock times linked to activities such as arriving at school. Children create times for the rest of the postman's day.</p>
4	Make pictograms and block graphs.	<p>What is your favourite fairy tale? Make a block graph and pictogram to represent results. Use tallying to gather information and names on a post it. Children shown how to do a tally. Children to add their choice to create a class pictogram. Children to answer questions such as which was the favourite fairy tale? How do you know? Link to number.</p>
5	Reinforce addition and subtraction	<p>Easter Story</p> <p>Children will have opportunities to say how many are hidden in a known number of things. For example, 'Five hot cross buns are in the bakery, two get bought. How many are left in the bakery?' Children to respond to questions. Children will explore different ways to partition a whole number. Children will identify pairs of numbers that make a total. Children will be shown the addition calculation to accompany the concrete resources. A range of manipulatives and visual representations will be available in the learning environment such as: Chicks and eggs and add how many eggs/chicks altogether.</p>

	Use correct vocabulary to describe 3D shapes.	Ten frames and east egg pictures to support addition and subtraction. Junk modelling to use different 3D shapes to create a model. Develop math vocabulary for 3D shapes- edges/faces/vertices. Discuss names. Children will revisit 3D shapes recalling their names and properties. Children will be encouraged to spot shapes within shapes by identifying 2D faces of 3D shapes. Children will choose 2D shapes to construct a 3D model eg using triangles and rectangles to make a tent.
6	To solve problems by doubling, halving and sharing. Pattern work	Use a mirror to introduce the idea of doubling. Explore what doubling means. Model numbers sentences. Make Easter egg related problems. Ladybird doubling/halving using spots. Tell a story about someone having two eggs and Miss double has twice as many. How many does she have? Children to use fingers for doubles to 5. Children will understand what a double number is. Develop children's skills with patterns. Explore patterns in Easter egg wrapping. Children to continue patterns that are ABC patterns and copy patterns. Children to identify and fix errors in AB patterns. Create a pattern out of the smarties given. Challenge the child to change one element of the pattern they have created, e.g. 'Can you change the red X to a blue X? What is the pattern now?'

Wild at Heart Summer A- Maths		
Week	Key focuses	Maths coverage and resources
1	To recognise and order numbers to 20 and beyond. To count reliably to 20 and beyond. Practise counting in patterns of 2's, 5's, and 10's	Children will count to 100 using a 100 square to support recognition of numbers. Children will be supported to ensure correct pronunciation of teen and 'ty' numbers. Children to pass a teddy around a circle and count in 1's up to 100. Children will count dinosaurs of different size to focus on numerosity. Dinosaur treasure hunt have to find hidden pictures of dinosaurs around classroom and outdoor area, how many? Count and record. Dinosaur numbers to sequence in 2's, 5's, 10's alongside SW dinosaurs. Daily count in 2s/5s/10s. Children will estimate the number of objects and count to check and record the total. Number talks to develop accurate estimation skills.

<p>2</p>	<p>Comparing two lengths using direct comparison, using the language of longer and shorter</p> <p>Comparing two heights using direct comparison, using language of taller and shorter</p> <p>To compare the capacity of two containers.</p>	<p>My dinosaur...</p> <p>Children may use gestures or words to start to compare amounts of continuous quantities (length, capacity, and weight), pointing to items that are big, tall, full or heavy. Children learn this vocabulary from the adults around them. Adults can seek opportunities to extend and refine conversations about things that are long, tall, high, heavy, full, etc. rather than just 'big'. At this point children may not be using comparative language such as, 'You are taller than me.'</p> <p>Children will measure and compare heights using the vocabulary 'taller' and 'shorter'. Children will have opportunities to measure with non-standard and standard units. Children will explain how they know 'A' is taller/shorter than 'B' by using the units for comparison. Children will be given opportunities to find the odd one out eg all containers but one have the same capacity. A filling station will be set up with lots of different sized containers to fill with beads and compare the capacities.</p>
<p>3</p>	<p>To count on and back from a given number holding the biggest number in our head.</p> <p>Reinforce addition and subtraction skills.</p>	<p>Farm animals</p> <p>Children will count two groups of objects and put the number of the largest group in their head and count on to find the total. Children will have numberlines/Numicon/Ten frames to check. Children will begin to record by using pictorial jottings. Children will be shown the written calculation. Children will understand subtraction as take away and will know that subtraction is less. Numberlines to be provided to show calculation. Children will record by using jotting eg crossing out number of objects taken away from the beginning amount.</p>
<p>4</p>	<p>Use the correct vocabulary to describe 3D shapes used in village models.</p> <p>Make pictograms and block graphs to find out favourite animals.</p> <p>Sorting farm animals by own criteria</p> <p>Understand and use the language 'more' or 'less'</p>	<p>Children to talk about the properties of 3D shapes and understand that properties are the same for all cylinders etc irrespective of size. Children will be given opportunities to talk about the shapes of the 2D faces when engaged in construction etc. Children will make 3D shapes using interlocking shapes.</p> <p>Children will choose their favourite animal from the selection provided. Children will record class results as a tally in groups. A class pictogram to record results. Children will answer questions that include finding the difference between two results. Children will be shown a block graph with a scale in ones and also twos and compare and answer questions.</p> <p>Children will consolidate sorting animals by a given criteria and then sort by their own criteria. Opportunities to identify animals that have both criteria and put in a Venn diagram. Children will understand the NOT set.</p> <p>Children will understand the value of each digit in a two digit number. Numicon, ten frames and bar models to be used alongside manipulatives to support understanding of tens and ones. Opportunities will be provided to identify which is more/less by using manipulatives to</p>

		make the number. To develop the language of 'more' and 'less' collections for children to sort and compare which include objects which are identical and include objects of different kinds or sizes. Collections with a large number of things, and collections with a small number of things. Children to describe groups using more, less and equal. Children to be encouraged to estimate total in a group. Children will be given opportunity to count how many in a group by counting in 1's, 2's, 5's, 10's depending on amount in a group.
5	<p>To sort odd and even numbers.</p> <p>To share, divide and halve a group of objects</p>	<p>What the Ladybird Heard Children will learn which numbers are odd and even and understand that an odd amount cannot be shared equally unless the odd one is halved. Count in 2s from 0 or 1 and reinforce odd/even numbers.</p> <p>Children to understand halving as sharing between two. Practical opportunities to halve a group of objects eg share food between the ladybird and a friend. Opportunities to use a halving mat and group SW ladybirds, half go home, half go on the flowers. What is half of ...? Using concrete manipulatives to give context. Two animals from the story want to share food eg carrots, want to be fair so want half each? How can we find half? Children will understand half as dividing.</p>

Wild at Heart Summer B- Maths		
Week	Key focuses	Maths coverage and resources
1	Using positional vocabulary e.g. opposite and behind	<p>Look at a zoo map- where can we find different animals at the zoo? Children to consider objects from different perspectives and draw representations eg 'Can you draw your construction from above, looking down on it?'</p> <p>Children need opportunities to be exposed to and to use the language of position and direction: position: 'in', 'on', 'under' direction: 'up', 'down', 'across'.</p> <p>Children also need opportunities to use terms which are relative to the viewpoint: 'in front of', 'behind', 'forwards', 'backwards' ('left' and 'right' to be used later on as ideas develop). Children to use bee-bots to give instructions to a partner by using positional vocabulary in their instructions.</p>

	<p>Knowing ordinal numbers e.g. first, second, third</p> <p>Describing properties of common 2D and 3D shapes</p>	<p>Children to understand ordinal numbers tells the position of something. Opportunities for children to use ordinal numbers by providing opportunities such as an animal race and talking about who came first etc. Children to line up and model writing ordinal numbers on a whiteboard for children to see ie 1st and also the word first.</p> <p>Children can name and talk about the properties of 2D and 3D shapes and recognise the shapes in different orientations. Children will recognise a range of triangles and be able to talk about how they know what they are. Opportunities to use 2D and 3D shapes to create representations in pictures and in construction talk about 3D shapes.</p>
2	<p>Number recognition to 20 and beyond</p> <p>Counting accurately to 20 and beyond</p>	<p>Range of different objects to count and sequence numbers alongside them. Number track and 100 square with numbers covered and children have to say what the missing number is and how they know. Using a 100 square or Splat Square on the IWB children count in fives and tens up to 100.</p> <p>Use children in a line and have a number and have to order themselves in sequence. Choose a random number on the 100 square and children begin counting from there. Using IWB Splat Square point to numbers as children count and pause to make sure children are looking and stop their count.</p>
3	<p>Number bonds to 10</p> <p>Recalling and using days of the week and time vocabulary.</p> <p>To tell the time to the o'clock and half past the hour.</p>	<p>Children to use manipulatives to find ways of partitioning ten objects into two groups. Children will begin to record number bonds with jottings and adult will write the corresponding number sentence. Children use Numicon and ten frames to derive number bonds to ten. Children will learn bonds for any number up to ten not just ten.</p> <p>Children will sing days of the week song and sequence the day using time vocabulary. Children will experience specific time spans in order to start to develop an overall sense of time. This will be based on familiar activities eg 'Number of sleeps until...' Class calendar will support this by highlighting certain events. Discuss the number of sleeps getting smaller and what this means. Children will use timers in play to explore what they can do in a certain period of time eg 'How long will it take you to run around the track?' 'How would we know if you were getting quicker' Identify that, in this case the smaller the number of seconds, the quicker you are getting.</p> <p>Children to identify o'clock and half past times linked to their activities throughout the day. Children to understand the long hand is the minute hand and the short hand is the hour hand. Identify half past and o'clock. Children make o'clock times on a clock.</p>

<p>4</p>	<p>Counting in patterns, using 100 square</p> <p>Recognising and creating repeating patterns</p> <p>Recording amounts/scores</p>	<p>What the ladybird heard on holiday</p> <p>Children will have opportunities to:</p> <ul style="list-style-type: none"> • repeat the unit at least three times (big bear, small bear; big bear, small bear; big bear, small bear). This is to ensure the child can sustain the pattern • make a specified pattern, e.g. 'Can you do a green, yellow pattern?' This is to ensure the child can apply their pattern understanding. • choose their own rule, e.g. 'I am going to make a big, small pattern.' This is to ensure the child can identify pattern features/rules/criteria. • choose their own actions or sounds, e.g. clap, stamp... This is to help children generalise the idea of pattern. <p>Children that are confident with patterns will investigate whether a pattern can continue indefinitely in a circle. They will make necklaces and make patterns around a paper plate. Children will be prompted to discuss whether the pattern works or not and why. Children to be given opportunities to adjust circle sizes so items can be added or taken out.</p> <p>Children to record scores in practical contexts such as skittles, or timing how many actions in one minute.</p>
<p>5</p>	<p>Double numbers</p> <p>Writing numbers with good formation</p>	<p>Tiger who came to tea</p> <p>Use role play to set plates and say we need double the food for the tiger, Sophie needs one piece of chicken the tiger needs double, how much does he need etc?</p> <p>Children to find double for numbers up to ten by using objects. Children will understand double as multiplying by two. Children to be shown written double calculations.</p> <p>Daily number formation from 0-20, formation guide to be provided for children that require it.</p>
<p>6</p>	<p>Adding and subtracting to solve problems</p> <p>Using size vocabulary to support projects and solve problems</p>	<p>Monkey Puzzle</p> <p>Children use addition and subtraction to solve calculations with missing numbers, manipulatives and visual resources to be used to support learning. Children given challenge cards with word problems and solve using calculation skills.</p> <p>Monkey puzzle game how many ways to make ten by balancing bananas on each arm.</p> <p>Range different size containers/objects and set challenges eg which jug will hold ten cups of water. Children to collect sticks and order from shortest to longest and use vocabulary to talk about the length. Opportunities to be provided to solve problems involving length (including height) , capacity and mass/weight.</p>