EYFS Maths Long Term Plan Tugby

Number ELG

Children at the expected level of development will:

- Have a deep understanding of numbers to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns ELG

Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Development Matters

3 – 4 Year Olds	Reception
Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). Recite numbers past 5. Say one number for each item in order: 1,2,3,4,5. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Show 'finger numbers' up to 5. Link numerals and amounts: for example, showing the right number of objects to match the numeral up to 5. Experiment with their own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 5. Compare quantities using language: 'more than', 'fewer than'. Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'	Count objects, actions and sounds. Subitise. Link the number symbol (numeral) with its cardinal number value. Count beyond 10 Compare numbers Understand the 'one more than/one less than' relationship between consecutive numbers. Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–5 and some to 10. Select, rotate and manipulate shapes to develop spatial reasoning skills.

Understand position through words alone – for example, "The bag is under the table," – with no pointing. Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'. Make comparisons between objects relating to size, length, weight and capacity. Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc. Combine shapes to make new ones – an arch, a bigger triangle, etc. Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc. Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and correct an error in a repeating pattern. Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then…'	Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Continue, copy and create repeating patterns. Compare length, weight and capacity.

Birth to 5

Range 5	Range 6
Comparison • Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same! **Counting** • May enjoy counting verbally as far as they can go • Points or touches (tags) each item, saying one number for each item, using the stable order of 1,2,3,4,5. • Uses some number names and number language within play, and may show fascination with large numbers • Begin to recognise numerals 0 to 10 **Cardinality** • Subitises one, two and three objects (without counting) • Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle) • Links numerals with amounts up to 5 and maybe beyond • Explores using a range of their own marks and signs to which they ascribe mathematical meanings	**Comparison** • Uses number names and symbols when comparing numbers, showing interest in large numbers • Estimates of numbers of things, showing understanding of relative size **Counting** • Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0 • Increasingly confident at putting numerals in order 0 to 10 (ordinality) **Cardinality** • Engages in subitising numbers to four and maybe five • Counts out up to 10 objects from a larger group • Matches the numeral with a group of items to show how many there are (up to 10) **Composition** • Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects • Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three

Composition
• Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers
• Beginning to use understanding of number to solve practical problems in play and meaningful activities
• Beginning to recognise that each counting number is one more than the one before
• Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same

Spatial Awareness
• Responds to and uses language of position and direction
• Predicts, moves and rotates objects to fit the space or create the shape they would like

Shape
• Chooses items based on their shape which are appropriate for the child's purpose
• Responds to both informal language and common shape names
• Shows awareness of shape similarities and differences between objects
• Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes
• Attempts to create arches and enclosures when building, using trial and improvement to select blocks

Pattern
• Creates their own spatial patterns showing some organisation or regularity
• Explores and adds to simple linear patterns of two or three repeating items, e.g. stick, leaf (AB) or stick, leaf, stone (ABC)
• Joins in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next

Measures
• In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items
• Recalls a sequence of events in everyday life and stories
• In practical activities, adds one and subtracts one with numbers to 10
• Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and "+" or "-"

Spatial Awareness
• Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints
• Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning)
• May enjoy making simple maps of familiar and imaginative environments, with landmarks

Shape
• Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes
• Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes
• Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build

Pattern
• Spots patterns in the environment, beginning to identify the pattern "rule"
• Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat

Measures
• Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy
• Becomes familiar with measuring tools in everyday experiences and play
• Is increasingly able to order and sequence events using everyday language related to time
• Beginning to experience measuring time with timers and calendars

Term	Block	Week	White Rose Teacher session	NCETM Teacher session	Provision and activity ideas	Numberblocks
Autumn (14 weeks)	Getting to Know You	1	Settling in	Settling in Getting used to routines	Subitising Counting Recognising numerals Representing 1, 2 and 3	
		16.09	Key times of day	1 1. Subitising 1 and 2 2. Subitise within 3 3. Represent qualities on their fingers in different ways 4. Identify sub-groups of 1, 2 and 3 within larger arrangements 5. consolidate key times of day	Use paper plates or large hoops outside to make bigger arrangements of 1, 2 or 3. Leave out the square cards from Session 2 and some simple items of a similar size (e.g. pebbles, shells, etc.). Display a pattern of 3 using 3 dots and encourage the children to use the objects to match the pattern or to create their own different patterns of 3 on the cards. Match pairs of subitising images that show the same number, or roll a 1–3 die and find the matching image.	Numberblocks episode – one Numberblocks episode – two
		23.09	Positional language (introducing vocabulary)	2 1. The last number in the count tells us how many there are (cardinality) 2. Counting each object, action or sound only once 3. experience counting sounds 4. record the results of their count 5. positional language (find Elmer around the room)	Play skittles in the outdoor environment so the children can count how many skittles they have knocked down. Invite the children to make collections of a given number by labelling hoops or chalk rings with representations of quantities (e.g. fingers, number plates, etc.). Provide a range of interesting objects, and containers for the children to make collections in. Provide a selection of 'counting wands' for the children to use to help them keep track of their tagging. Provide a selection of containers that allow for the development of 1:1 correspondence, e.g. ice cube trays so the children can put 1 object in 1 space. Provide laminated pictures of interesting collections of objects that the children can tag with dry-wipe markers. Provide a range of musical instruments that can be used to make clear, defined sounds (e.g. a drum or xylophone); ask the children to use the instruments to count sounds. Finding Elmer in pairs using positional language	Numberblocks episode – how to count
	Just Like Me	30.09	Matching and sorting (introducing vocabulary)	3 1. composition of 2 (1 and another 1) 2. Identify when a collection is 3 objects 3. Make own collection of 3 4. Identify when a collection is 3 or not 3	Opportunities to count and represent 3. How many ways can we make 3 (e.g. 3 ones or 2 + 1)? Investigating number 4 Provide paper cake cases and small objects [e.g. acorns, pom-poms, dried beans, etc.] for the children to make repeated collections of 3 or 4. (If	Numberblocks episode – another one Numberblocks episode - three

				5. composition of 4 (4 ones)	tweezers are included, this activity could also help to develop fine motor skills.) Provide small pieces of card for the children to create their own subitising cards to use with their friends. They could decorate the cards by sticking on shiny shapes (craft shapes) or using stampers. The children can then sort and match the cards created into 'all the 3s/all the 4s'. Matching and sorting activities with bears/elephants/natural objects and sorting hoops	Numberblocks episode – one, two, three! Numberblocks episode – The Whole of Me
		07.10	Comparing amounts (introducing vocabulary)	4 1. subitise arrangements of 2 and 3. Practise making 2s and 3s with their fingers. 2. Subitise auditory patterns up to 3. Identify when a small collection is rearranged or the quantity changed. 3. Show small quantities on their fingers. Use positional language to describe patterns of 4. 4. make patterns showing 4 5. Matching and sorting	How many ways can be make 4 (e.g. 4 ones, 2 + 2 or 3 + 1)? Instruments to subitise sounds in pairs and record how many Opportunities to write the numeral Use square tiles or pieces of card to make different arrangements of Numberblock Four. How many different arrangements can be made? How are they the same and how are they different? Some children might want to record what they have made. Allow the children to explore how to make patterns of sound with different instruments. They could ask other children and/or adults to subitise their own sound patterns. Matching and sorting activities with bears/elephants/natural objects and sorting hoops	Numberblocks episode – four Numberblocks episode – stampolines Numberblocks episode – Three Little Pigs
		14.10	Compare size, shape, mass and capacity, explore pattern (introducing vocabulary)	5 1. represent a given number on fingers without looking. Compare 2 sets of objects say say which is 'more than' 2. represent a given number on fingers without looking. Compare 2 sets of objects say say which is 'more than' 3. compare 2 sets of objects and say which is 'more than' or 'fewer than' 4. compare 2 sets of objects and say which is 'more than' or 'fewer than' 5. exploring pattern	Set up a game of skittles, using empty plastic bottles or similar items, and allow the children to try knocking them down by rolling a large, soft ball. Ask the children: *Who has knocked over more than […]? How do we know? Who has knocked over fewer than […]?* More than, fewer than opportunities Comparing length in construction Comparing weight (using scales) Comparing volume in water area Comparing shape	Numberblocks episode – holes Numberblocks episode – hide and seek
	It's me 1, 2, 3	28.10	Introduce 0 and 1 Representing 1, 2 and 3 Comparing 1, 2 and 3	6 1. practise counting each object, action or sound once. Tag each object with 1 number word (1:1 correspondence). See that they have 5 fingers on one hand.	Provide different collections of objects (e.g. buttons, cones, counters, sticks, etc.) for the children to count in pairs. Some children may want to record their count. Play 'How many 5s?' Place dried peas or beans in a play tray. Ask the children to match the peas to the holes in number plates representing 5. This activity can be varied across the week by providing pegs or counters to represent the peas and/or	Numberblocks episode – how to count Numberblocks episode – five

				2. say and make numbers to 5 on their fingers. Make collections of 5 in different ways 3. use counters to represent 5 objects. Use a die frame to represent 5 4. count 5 and 5 to make 10. 5. exploring pattern	asking the children to match their filled number plates to pictures of 5 fingers or die frames. Label hoops, chalk rings or containers with representations of quantities to 5 (e.g. fingers, number plates, etc.) and encourage the children to make matching collections of objects. Draw chalk tracks outside, roll a large die and ask the children to jump that many spaces along the track. Play skittles outside. *How many skittles have you knocked down?* Provide a selection of 'counting wands' for the children to use to help them keep track of their tagging. Provide labelled spaces for vehicles and trikes. *Have we got 5 cars?* Repeating patterns ABABAB, AABAABAAB, AABBAABB	Numberblocks episode – stampolines Numberblocks episode – ten
		04.11	Introducing 2 Composition of 1, 2 and 3 Introduce 3	7 1. practise subitising amounts to 4. Revisit 'more than' or 'fewer than' by looking 2. compare groups of up to 3 objects my matching 1:1. Say when we have an equal number 3. say when there is an equal number, too many or not enough 4. build towers with an equal number of squares. Match the squares in the towers 1:1. 5. exploring pattern	Set up a picnic area with plates, cups, food, etc. *Do we have the right amount?* Investigate with the children how many items they can hold in 1 hand – the items could be varied each day, e.g. large cubes, small cubes, pegs, buttons, etc. Some children may want to record their results. *Yesterday you could hold 3. What do you think will happen today? Can you hold an equal number in each hand?* Provide different containers in the sand/water areas, and ask the children to investigate how many cups it takes to fill them. Provide balance scales and a range of different objects to balance. *Which side of the scales has more? Can you tell by looking? Do you need to match them to check?* Repeating patterns ABABAB, AABAABAAB, AABBAABB	Numberblocks episode – how to count Numberblocks episode – Three Little Pigs Numberblocks episode – Blockzilla
		11.11	Circles and triangles Positional language	8 1. identify the 'whole' when shown 1 part of a familiar object. Identify that the parts are still visible when they are assembled to make the whole. Hear the language of 'whole' and 'parts' 2. identify parts of their own body. Recognise that some whole objects have parts that cannot be removed. 3. identify parts of animals' bodies. Recognise that some whole objects have parts that cannot be removed.	Ensure the children have access to a wide range of activities that involve constructing and deconstructing things with parts, including toys that need to be constructed, e.g. building blocks, jigsaw puzzles and pattern blocks. Provide craft activities that require the children to select different parts to make a whole, e.g. making a whole face from different craft shapes or stickers. Talk to the children about the parts they have selected to make the whole. In the outdoor environment, help the children to spot things with moving parts, such as bikes and scooters. Talk about how these things need all the parts to make them work properly as a whole.	Numberblocks episode – holes Numberblocks episode – the whole of me Numberblocks episode – fruit salad Numberblocks episode – three

				4. Investigate ways to compose and de-compose sets of 2 and 3. Know that 1 and 2 are parts of 3. 5. circles and triangles	Provide the children with musical instruments and encourage them to talk about the various parts that make up each instrument. Display a range of 'lost' parts that can be matched to familiar objects and reconstructed to make a whole. Circles and triangles in the provision to explore, sort and describe	
	Light and Dark	18.11	Introduce 4 Introduce 5	9 1. investigate ways to compose and de-compose sets of 3. Explore how 1 and 2 are parts of 3. 2. investigate ways to compose and de-compose 4. 3. use spatial language to describe e the shapes. Explain that different parts can make the same whole 4. investigate ways to compose and de-compose 5. 5. circles and triangles	Provide squares of card and up to 5 different coloured buttons, jewels, pom poms or similar small objects for the children to use to make collections of different amounts. Provide opportunities for the children to make their own 'Stampoline' prints, using both smaller craft equipment indoors and larger equipment in the outdoor area (see Session 2). Circles and triangles in the provision to explore, sort and describe	Numberblocks episode – the numberblocks express Numberblocks episode – once upon a time Numberblocks episode – the terrible twos
		25.11	One more, one less	10 1. Counting sequences to 10, inc songs and rhymes. Begin to represent quantities to 10 using fingers 2. recognise numerals to 5. Develop understanding of equal amounts 3. represent quantities in more abstract ways, such as by clapping or jumping 4. begin to understand that when a set of objects is rearranged, the quantity remains the same. 5. One more, one less	Play a sorting game. Place dot pattern and numeral cards next to containers, and provide small objects (e.g. acorns, buttons, counters, etc) for the children to sort. You could also provide labels for the children to make their own representations. Play a game of bean bag toss. *How many times can you throw and catch the bean bag? Can you beat your score?* Play a game of skittles. *How many skittles can you knock down?* Play a track game. Ask the children to roll a die and move a counter or jump that number of spaces along a track.	Numberblocks episode – stampolines Numberblocks episode – ten Numberblocks episode – Just add one
		02.12	Shapes with 4 sides	11 1. use their fingers to quickly show quantities on 1 hand. Recognise the numerals 1–5. begin to develop their conceptual subitising skills with linear and paired arrangements of up to 5 dots. 2. subitise linear and paired arrangements of 2, 3 and 4 dots. visualise and recreate arrangements of 3, 4 and 5 dots. match	Provide opportunities for playing simple track games. Use standard dice and this week's session resources or large dice and chalked tracks for jumping/hopping games outside. Reinforce the recognition of numerals by saying the number reached. *Stand on your starting place… and take 2 jumps. Oh look! You're on number 5 now!* Provide opportunities for the children to match dot cards with numerals and with small objects such as pebbles, pine cones and buttons.	Numberblocks episode – stampolines Numberblocks episode – hide and seek Numberblocks - six

				arrangements of 3, 4 and 5 dots to the correct numerals. 3. match numerals to quantities for 1–5. recognise die arrangements. visualise and describe arrangements of dots on a die. use dice to link subitised amounts with 1-to-1 counting actions. 4. recognise die patterns to 6. link die patterns to numbers shown on their fingers use die patterns to play track games. 5. Shapes with 4 sides	Give the children access to triangles, squares, rectangles and pentagons/5-pointed stars (you could chalk these onto the base of a play tray). Then provide objects such as buttons or pom-poms for matching and placing activities. Encourage the children to talk about what they notice. They may choose to match the objects to the angles on the shapes, or to the sides. Offer opportunities to make arrangements of 5 by printing with paint using fingers, corks or other distinct shapes. *How many ways can you find to arrange 5 dots?* You may want to start with 1 colour and enhance the activity with 2 colours later in the week. *Wow! Amazing arrangements of 5 everyone! Shall we use them as class flashcards?* Ask the children to make their own pages for class 1–5 story books. *Who would like to make a page about 5? What will you put on it?* Encourage them to draw their own representations of each number.	
	Consolidation	09.12	Night and day/time	12 1. recognise numerals 1–5 order numbers from 1–5. 2. match numerals to quantities in order help to build towers in order from 1–5 squares see the staircase pattern and recognise that each number is 1 more. 3. order towers of 1–5 interlocking cubes notice when we have '1 more' and when we do NOT have '1 more'. 4. match numerals to representations represent staircase patterns in different ways, knowing that each new 'step' is 1 more than the last. 5. shapes with 4 sides	Provide opportunities for building towers out of various blocks in both indoor and outdoor play areas. Display pictures of the Numberblocks without their numerals (from Session 2) as inspiration. Provide individual pictures of the Numberblocks without their numerals and/or squares of card made into towers (both from Session 2) for the children to put in order. Create a staircase pattern using the resources detailed in Session 2 and place it in a play tray, with objects such as pom-poms, square counters, stickers or buttons for the children to use to make their own staircase patterns. Some children may want to record what they have made with their own graphical representations. *Talk to me about the pictures that you've drawn.*	Numberblocks episode – off we go Numberblocks episode – holes Numberblocks episode – just add one
		16.12	Consolidation	13 1. show numbers to 5 using their fingers. see that 5 can be partitioned into 4 and 1. 2. show ways of making 5 on their fingers. see that 5 can be partitioned into 3 and 2. 3. find ways to partition a set of 5. 4. understand that 5 can be partitioned (split) into different parts. be able to explain what the parts	Provide 5 toy frogs or 5 pictures of frogs (see Session 3), and items to represent a log and a pool in a play tray. Allow the children to act out the nursery rhyme used in the main sessions and to play similar hiding games to those played in the session activities. Supply number plates that represent 5, and a collection of number pegs, counters or beads in 2 different colours for the children to play matching activities. *What do you notice? How many [red]*	Numberblocks episode – the numberblocks express Numberblocks – peekaboo

				are. use what they know about 5 to work out a hidden number. 5. night and day time	*beads and how many [blue] beads can you match to your 5-plate?* Place a large hoop and 5 small beanbags outside for throwing practice. *How many beanbags landed in the hoop? How many did not? How many beanbags are there altogether?* Prepare a selection of fruit cut into bite-sized chunks and wooden skewers for the children to make fruit kebabs. *Only 5 pieces of fruit allowed on each kebab! How is your kebab different to mine? How is it the same?* Ask the children to create their own drawings to represent the frogs in the rhyme used in the main sessions. *How have you drawn the frogs? What do your pictures show? Are there still 5 frogs altogether?*	

Term	Block	Week	White Rose Teacher session	NCETM Teacher session	Provision Ideas	Numberblocks
Spring (12 weeks)	Alive in 5	06.01	Introducing zero Comparing numbers to 5, composition of 4 and 5	14 1. see that there are 5 dots on a die pattern. represent 4 in different ways on a die frame. 2. use their fingers to represent 6 as '5 and a bit' use double dice frames to represent 6 as 5 and 1 more. 3. match die representations of numbers 1–6 to representations on their fingers see that 5 and '2 more' make 7. 4. count out 6 blocks from a collection. replace 1 block and know that there are still 6. add another block to make 7. 5. Night and day time	Opportunities to subitise the numbers 4 and 5 – what is 4 and 5 and what's not 4 and 5. Comparing different groups of 4 and 5 using cubes, numicon, bundles of sticks. Shapes with 4 sides – comparing and sorting. Concentrating on features. Offer opportunities for the children to reinforce their subitising to 6 skills by playing track games both indoors and outdoors (drawn with chalk) using a die. Provide the double dice frame and pictures of Numberblocks aliens (from Session 2) for the children to re-enact their own alien stories. Some children may want to record their thoughts with their own maths graphics. *Tell me about the pictures that you have drawn.* Place 5 or 6 small world toys in a play tray with areas marked to represent a pond, tent, cave or grass, etc. e.g. *How many [farm animals] are in the cave? How many are on the grass? Are there still 5/6 altogether?* Ensure that all the toys are visible somewhere in the play tray.	Numberblocks – zero Numberblocks – four Numberblocks - five

		13.01	Comparing Mass Compare capacity	15 1. use 'more than' and 'fewer than' to describe quantities. say when they can see that someone has more or fewer of the same kind of object. know that it is quantity – not colour – that determines if 1 set has more or fewer of the same type of object than another. 2. use 'more than' and 'fewer than' to describe quantities. say when they can see that someone has more or fewer of the same kind of object. know that it is quantity – not colour or size – that determines if 1 set has more or fewer of the same type of object than another. 3. use 'more than' and 'fewer than' to describe quantities. say when they can see that someone has more or fewer of the same kind of object know that it is quantity – not colour, size or type of object – that determines if 1 set has more or fewer items than another. 4. use the words 'an equal number' to say when there is the same number of items in 2 sets say when they can see an equal number. 5. Comparing mass and capacity	Scales with a range of objects. Write which is the heaviest when comparing. Water play with measuring jugs and cylinders of different sizes – short, tall, thin, wide. Discuss that a tall thin cylinder might hold less than a shorter wider cylinder even though it is taller. Provide opportunities for the children to explore and match by placing printouts of comparison slides from the presentation (slides 4–6, 8–10, 12–14) and small, countable objects (e.g. buttons, counters, pebbles, pine cones, etc.) in play trays. Provide clipboards, paper and pencils for the children to use to collect data from their classmates. *Let's see which fruit the children in our class like best! / Let's find out which pets our classmates have!* Offer opportunities for the children to build towers both inside and outside. *I wonder – do the tallest towers always have the most blocks?*	
	Growing 6, 7, 8	20.01	Composition of 6, 7, 8 Sorting 6, 7 8	16 1. practise counting aloud revisit the principles of counting. 2. explore '5 and a bit' ways to make numbers between 6 and 10. use generalised statements to describe the '5 and a bit' composition of the numbers 6–8. 3. investigate the '1 more/1 less' pattern of the base-10 counting system. begin to order numbers between 1 and 10, noticing the '5 and a bit' structure. 4. describe the '1 more/1 less' relationship of numbers to 10. work together to order numbers between 1 and 10, noticing the '5 and a bit' structure. 5. Sorting 6, 7 and 8	Make museums of 6, 7 or 8. use hoops/play trays and the finger representation cards from the session resources to support the children's contributions. Use a washing line to display representations of quantity to 8, such as the finger representation cards ·Use 'spotting' books – e.g. 'Where's Wally' by Martin Handford, the Usbourne 'Great Searches' books, or 'Where's the Pair?' by Britta Teckentrup – to count how many of a certain item can be seen on a double-page spread. Ask the children to throw objects (e.g. bean bags) into a bucket or hoop. How many can you get on target? Count as you go Use construction blocks to see who can build the tallest tower or longest track. Great teamwork! How many blocks have you used?	

		27.01	Making pairs Combining 2 groups	17 1. subitise arrangements of 6 and NOT 6. order Numberblock images to 8. 2. represent 8 as '5 and 3 more'. describe how to place the numbers 1 to 8 in order. 3. explain how to order quantities to 10. reason about which numbers are 'more than' others. 4. consolidate their understanding of 8 as '5 and 3 more'. notice when numbers are increased or decreased and explain their thinking. 5. Making pairs (socks, objects, making numbers)	Provide number plates and encourage the children to look for opportunities to 'hide' some numbers underneath others. *Which numbers can be hidden underneath 3? Why? Can 4 be hidden under 3? Why not?* Place interlocking cubes in a play tray with images of the Numberblocks from the session resources, and ask the children to make their own Numberblock towers. Then initiate a discussion. *How have you built your towers? Can you place them in order? Does the colour matter?* Provide opportunities to roll large dice and play track games outside. Use pre-painted tracks or draw your own with chalk, and encourage the children to step/jump/hop along the tracks the number of times shown on the die. *Who has rolled more? Who has moved the most?*	
		03.02	Length and Height Time	18 1. use skills of conceptual subitising to describe parts of a whole set. visualise arrangements and use gestures to describe the numbers within a whole set. 2. investigate ways of making 7 with two parts. use their fingers to make and describe 7 as '5 and 2 more'. 3. notice when towers are made of 7 or NOT 7 interlocking cubes. work out the missing part of 7 using the '5 and a bit' structure. 4. see that 7 can be composed in different ways. explain their understanding of the composition of 7. 5. Length and height	Place 7 different toys in a play tray with a piece of blue cloth or paper to represent a pond. Move some of the toys onto the pond. *How many [toys] are on the pond? How many are on the side? Are there still 7 altogether?* Ensure that all the toys remain visible. Provide number plates that represent 7 and some number pegs, counters or beads in 2 different colours for the children to use for matching activities that expose the composition of 7. *How many ways can you fill the holes in the number plates with the 2 colours? What do you notice?* Place a hoop and 7 beanbags outside for throwing practice. *How many beanbags landed in the hoop? How many did not? How many beanbags are there altogether?* Provide a selection of small/chopped up fruits and some wooden skewers for the children to make fruit kebabs. *Only 7 pieces of fruit are allowed on each kebab! How is your kebab different to mine? How is it the same?*	
	Building 9 and 10	10.02	Comparing numbers to 9 Bonds to 9	19 1. use conceptual subitising strategies to derive dice patterns to 8 use their fingers to show 2 and 4 as doubles.	Provide butterfly outlines for decorating (see NCETM_MasteringNumber_R_T2_W19_Butterfly.pdf in the session resources). *Can you use gems/counters/foam shapes to decorate your butterfly using the same number on each side? How many have you got altogether? How do you know?* Some children may want to draw or construct their own animals to show patterns of doubles.	

				2. use the language of doubles to describe die/dice patterns. see when a pattern is and when it is NOT a double. 3. make doubles patterns using their fingers. use objects to make doubles patterns and describe where they can see the pattern of doubles. 4. use positional language to describe spatial arrangements of objects. visualise doubles patterns to 5 and 5. 5. Length and height	Provide the resources to play the butterfly matching game from Session 4 again, as an opportunity for independent practice and exploration. Draw large chalk outlines in the playground (e.g. circles, squares, rectangles) and divide them with a line down the centre. Ask the children to make a pattern on 1 side of the shape and then to copy or repeat it on the other side. *How many objects/ chalk pictures do we have? How many do we need?* Use mirrors to explore making arrangements of objects and seeing their double.	
		24.02	Representing 9 and 10 Sorting 9 and 10	20 1. recognise ways in which objects are similar to or different from each other. talk about some of the different attributes they notice (colour, size, function, shape, etc.). sort objects according to attributes described by an adult. 2. use their fingers to represent doubles and NOT doubles. describe attributes that they notice for a group of objects. sort and re-sort objects according to their own attributes. 3. use their fingers to show numbers to 8. describe attributes of the Numberblocks. sort the Numberblocks using the criteria 'odd blocks' or 'even tops'. 4. use their fingers to show doubles patterns. describe attributes of the Numberblocks. investigate patterns of doubles in interlocking cube models of the Numberblocks. 5. Time	Place some empty containers and a collection of small items in a play tray for the children to sort however they like. *Tell me why you have sorted them like that.* Some children may want to record what they have sorted. Provide further opportunities for the children to play games such as 'How am I sorting?' (see Session 1) and 'Spot the funny one' (see Small group work) for independent practice and exploration. Set the children challenges for sorting: ○ *Which of these (3D) shapes are great for building towers? Which are not? Why?* ○ *Which of these shapes roll well down this ramp? Which don't? Why?* When working with malleable materials or in the mud kitchen, ask: *Can you sort the cakes that you've made? Where will you put them so we can see which is which?*	
		03.03	Ordering numerals to 10 Composition of 9 and 10	21 1. count things that cannot be seen – sounds. revisit rules for how to count discuss and practise strategies for counting larger sets. 2. count things that cannot be seen – actions. discuss and practise strategies for counting larger sets by moving objects. 3. count things that cannot be seen – periods of time. discuss and practise strategies for counting larger sets by moving images make or	Provide a selection of 'counting wands' for the children to use to help them keep track of their tagging. Invite the children to make collections of a target number of specified objects by labelling hoops or chalk rings with representations of quantities (e.g. worksheet images of fingers, number plates, etc.). *How can you make it easier to show how many […] you have collected?* Supply a range of appealing objects and various containers for the children to make collections. Lay out laminated pictures of interesting collections of objects that the children can tag with dry-wipe markers. Provide a range of musical instruments that can be used to make	

				represent their own collections of larger amounts. 4. practise counting on from a given number. discuss and practise strategies for counting larger amounts that cannot be moved. 5. Time	clear, defined sounds (e.g. drums or xylophones). Ask the children to use the instruments to make and count sounds.	
		10.03	Numbers to 10 bingo 10 comparing numbers to 10	22 1. visualise, make and describe spatial arrangements of 6. 2. practise subitising to 6. make and describe arrangements of 6. 3. listen to rhythmic patterns of up to 5 sounds and determine the quantity. recognise Numberblocks and related doubles patterns on their fingers without counting. 4. subitise doubles amounts shown on 10-frames. 5. numbers to 10 bingo	Supply paint and printing materials for the children to use to make their own patterns of 6. *Are there any patterns where it's easier to see 6?* Ask the children to use objects or printing materials to make patterns they can subitise and patterns they need to count. *How do you know the number without counting? Why do you need to count this set?* Some children may want to make graphical representations or make marks of sets that can/cannot be subitised. Provide 10-frames from the session resources (see NCETM_MasteringNumber_R_T3_W22_ Large-10-frame.pdf) and sets of at least 6 small objects (e.g. counters, gems, shells, buttons, etc.) for the children to use to make their own collections. You could place numeral, finger pattern or Numberblock cards next to the 10-frames as target numbers for the children's collections. *How many ways can we make 6 on these 10-frames? Which ways make it easier to see 6?* Place a container of marbles and cardboard tubes in a play tray layered with e.g. sand/fabric/cotton wool. Ask the children to take a handful of marbles and roll them down the tubes and into the tray. *How many can you see in this group? Can you spot any groups of 6? When do you need to count?*	
		17.03	Bonds to 10 Counting back from 10 – ten in a bed	23 1. use their fingers to make doubles patterns. consolidate their use of finger patterns to represent numbers within 5. 2. use their fingers to represent numbers within 5, understanding that the 'whole' has not changed. use their own models and/or drawings to explore and represent the numbers within 5. 3. use their fingers to represent numbers within 5. use die frames as a different structure with which to represent the same numbers within 5. use spatial language to describe their arrangements.	Supply pictures of monkeys (provided; see NCETM_Mastering Number_R_T3_W23_Monkeys.pdf) and 'beds' (e.g. strips of card or wooden blocks) for the children to use to re-enact the rhyme. *How many monkeys are on the bed? How many have bumped their heads? Can you draw a picture?* Provide opportunities for the children to play independent games with 5 double-sided objects (e.g. counters, beanbags, etc.), as described in the Small group work section. *How do you know that you still have 5? Can you show me on your fingers?* Provide 10-frames, die patterns and finger representations from the session resources (see NCETM_MasteringNumber_ R_T3_W23_Number-rep-cards-1-to-8.pdf and NCETM_ MasteringNumber_R_T3_W23_2-colour-die-	

				4. match die frames to ways of making 5. explore ways of representing numbers within 5 using 10-frames. make links between different representations of numbers within 5. 5. Counting back from 10 – ten in a bed	patterns.pdf), along with a selection of different coloured counters, so that the children can play their own matching games.	
		24.03	Comparing numbers within 10 Making 10	24 1. visualise and use spatial language to describe numbers of dots. represent the same quantities to 10 using 10-frames and double dice frames. 2. match 10-frames with finger patterns and numerals. use structured arrangements to show 10 and 9. 3. begin to explore ways to make 10. represent ways to make 10 using structured arrangements. 4. decide when to subitise and when to count quantities. represent ways to make 10 using structured arrangements say the different ways that 10 can be made. 5. Making 10	Provide toy frying pans/saucepans and objects to represent sausages. Ask the children to take a handful of the objects and drop them into the pan. *How many 'sausages' have you got? Can you subitise? Do you need to count?* Some children may wish to record what they see. Play games using 10 double-sided objects, such as counters, beanbags or different-coloured foam shapes stuck together, by throwing or dropping the objects onto a play tray or into a hoop. *How many of one colour can you see? How many of the other colour are there? Do you need to count?* Ask the children to make number 'sandwiches' for 10 using a selection of number plates. *You can have two 'fillings'. Which fillings will you choose? Does it make 10 altogether?* Leave 10-frames in both indoor and outdoor spaces, and encourage the children to fill them with objects.	
		31.03	3D shape Pattern	25 1. identify missing numbers in the counting sequence to 5. order towers of cubes or number plates from 1–10 on a class number track. 2. identify missing numbers in the counting sequence to 10. match different representations of number to towers (or number plates) on a number track. use language to describe positions on a number track. 3. use the language of 'more than' and 'less than' when describing positions on a number track. begin to understand the rules for simple linear track games. 4. use the language of 'more than' and 'less than' when describing positions on a number track. describe and follow the rules for simple, linear track games. 5. 3D shape	Provide resources from the session materials for the children to play their own simple track games using soft toys/small world toys as the game players. *Don't forget to count on as you move the toys!* Provide copies of the number representation cards (see NCETM_MasteringNumber_R_T3_W25_Number-rep-cards-1-to-10.pdf) for the children to order and match with their own choice of objects. *Can you make your own number track?* Draw chalked outlines outdoors for the children to play their own track games by jumping from space to space. You may wish to cover the dots on a large die with stickers so ALL the faces represent the numbers 1 and 2 (as in Session 3). *Remember – don't count your starting position!* Supply chalk or craft materials for the children to use to construct their own track games.	

Term	Block	Week	White Rose Teacher session	NCETM Teacher session	Provision Ideas	Numberblocks
Summer (12 weeks)	Consolidation	1	Consolidation	26 Rekenreks		
		2	Consolidation	27 Rekenreks		
	To 20 and beyond	3	Building numbers beyond 10 Counting patterns beyond 10	28 Rekenreks Counting beyond 10 and spotting patterns		
		4	Spatial reasoning, match rotate and manipulate	29 Rekenreks Addition		
	First, then and now	5	Adding more Taking away	30 Rekenreks Addition		
		6	Spatial reasoning Compose and decompose	Consolidation (Use assessments to support teacher judgement)		
	Find my pattern	7	Doubling Sharing and grouping	Consolidation (Use assessments to support teacher judgement)		
		8	Even and odd Spatial reasoning – visualise and build	Consolidation (Use assessments to support teacher judgement)		
	On the move	9	Deepening understanding in patterns and relationships Spatial reasoning - mapping	Consolidation (Use assessments to support teacher judgement)		
	Consolidation	10	Consolidation- Use assessments to fill in learning gaps	Consolidation (Use assessments to support teacher judgement)		
		11	Consolidation- Use assessments to fill in learning gaps	Consolidation (Use assessments to support teacher judgement)		
		12	Consolidation- Use assessments to fill in learning gaps	Consolidation (Use assessments to support teacher judgement)		