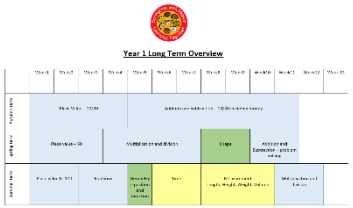
Reception Long Term Overview

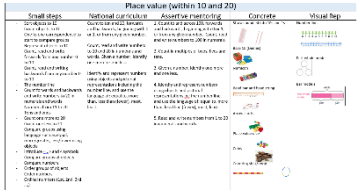
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Getting to Know You! Baseline assessment			Just Like Me! Match and Sort shapes / patterns/ jigsaws Compare Amounts Compare Size, Mass and Capacity (1) Exploring Pattern (1)			It's me, 1,2,3! Representing 1,2,3 incl zero Comparing 1,2,3 Composition of 1,2,3 Circles and Triangles Positional Language – over / under etc			Light and Dark! Representing numbers 1-5 One More One Less Shapes with 4 sides Time – morning / afternoon / routine		
Spring term	Alive in 5! Consolidating zero Comparing numbers to 5 Composition of 4 and 5 Compare Mass (2) Compare Capacity (2)			Growing 6,7 and 8 6,7,8 Making pairs Combining 2 groups Length and Height Time			Building 9 and 10 9 and 10 Comparing numbers to 10 Number bonds to 10 3D Shape Pattern (2)					
Summer term	To 20 and beyond! Building numbers beyond 10 Counting Patterns beyond 10 Spatial Reasoning; Match, rotate, manipulate			First the now Adding more Taking away Spatial Reasoning; Compose and decompose			Find my Pattern Doubling Sharing and Grouping Even and Odd Spatial Reasoning; Visualise and Build			On the Move Deepening understanding patterns and relationships Spatial Reasoning; Mapping		

Daily Maths lessons at Hamer in Early Years

Structure of a lesson – 30 minute session in ability groups

- Counting forwards and backwards (2 minutes)
- Re-cap previously days learning (5 minutes)
- Main body of the lesson – modelling / group work
- Independent work





When planning for learning:

- Start with the new long term overview
- Use the same document that breaks this down into a medium term plan
- Use the small steps on the medium term plan to support planning
- Go to the White Rose documents on the O drive under – Updated Maths – 00 Maths – Deeping Materials – White Rose Hub – New White Rose – find your year group
- When designing the lesson, consider the following: What is the start point? What existing skills and knowledge may they have or need to revisit? What Concrete resources may you need? What Visual representations may you want use? What is the key learning in the lesson? What language do you need to model? Are there any sentence stems? Are there any key words the children need to know the definitions of? What is the end point?
- For support with designing questions for appropriate activities for independent learning please use the following
    - White Rose (On the O Drive follow above)
    - I See reasoning and problem solving (On the O Drive follow above)
    - Maths Hub – teaching for mastery (On the O Drive follow above)
    - NCTEM (On the O Drive follow above)
    - Classroom secrets
    - Nrich
- Remember the three key elements of Maths – Fluency, Reasoning and Problem Solving (There needs to be a balance between all three of them for children to develop a deep secure understanding and mastery of the curriculum)

	Counting (Forwards and Backwards)	Times tables (Forwards and Backwards)	Resources to support
Nursery	Number rhymes Movement counting Environmental counting Touch counting Counting up to 10		Counting sticks Counting hoops Number lines Hundred squares Multiplication squares Numicon Meter ruler Bead strings Straws Competitions/races/games around tables etc Count me in Clap and count Sensory equipment (eg, use of a bouncing ball, dropping marbles in a jar) Killer 15 21 Fizz Buzz Around the world Clapping and chanting BBC super movers (Goes forwards and backwards) Number fun songs
Reception	Counting to 10 and 20 Counting in 1's from different starting points up to 20 Counting in 2's from different starting points up to 20 Counting in 10s from different starting points up to 100 How many? Subitising – looking at patterns and pictures up to 10 Counting rhymes eg, five little speckled frogs Counting in odd and even numbers	Counting in 2s, 5s and 10s	
Year 1	Counting to 10 and 20 Counting in 1's from different starting points crossing over 50 Counting in 2's from different starting points crossing over 50 Counting in odd and even numbers Counting in coins (1p, 2p, 5p, 10p, £1, £2, £5, £10) Counting in units of measures (cm)	2, 5 and 10	
Year 2	Revision from Year 1 Counting in 10s from different starting points up to 100 Counting in 2's from different starting points up to 100 Counting in odd and even numbers Counting in coins (1p, 2p, 5p, 10p, 20p, £1, £2, £5, £10) Counting in fractions (halves, quarters and thirds from any number to 10) – using pictures/resources to support Counting in different unit of measures (mm, cm, m) Counting in different times intervals	2, 3, 4, 5 and 10	
Year 3	Revision from Year 2 Counting in 50s/100s from different starting points Counting in 1000s from different starting points Counting in fractions (halves, thirds, quarters, fifths, eighths and tens) – using pictures/resources to support Counting in coins (1p, 2p, 5p, 10p, 20p. 50p, £1, £2, £5, £10) Counting in different unit of measures (mm, cm, m) Counting in different time intervals	2, 3, 4, 5, 6, 8 and 10	
Year 4	Revision from Year 3 Counting in 10's, 25s, 50's, 100s, 1000s from different starting points to 10,000 Counting in 10,000's from any start point Counting in square numbers Counting in coins in any amount (eg, 20p, 30p, 50p) Counting in unit fractions simplifying along the way (Eg ¼. ½. 3/4 , 1) Counting in decimals (tenths and hundredths) Counting in degrees (90, 180, 270 etc) Counting in different unit of measures (mm, cm, m, km) Counting in different time intervals	2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12	
Year 5	Revision from Year 4 Count in 10s, 25s, 50s, 100s, 1000s, 10000s, 100000s from different starting points to a million Counting in different units of measures Counting in prime numbers and cube numbers Counting below zero Counting in non-unit fractions (eg, 3/4)	2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12	
Year 6	Revision from Year 5 Counting in 10s, 25s, 50s, 100s, 1000s, 10000s, 100000s, 1000000s, from different starting points to ten million Counting in squared numbers to 20 Counting in decimals to 2 decimal places (including going below zero)	Times tables up to 15	

Just like me!

Small steps (lessons) Teach these objectives in a variety of ways	Ideas for Continuous provision	Development Matters / Birth to 5	Visual Rep / Concrete
- Match items by colour, appearance or shape - Sort items by colour, appearance or shape - Separate groups of 3 or 4 objects in different ways - Say one number for each item in order - Cardinal principle - Represent number 1 to 5 with fingers - Compare quantities (more than or fewer than) - Link numerals and amounts - Length vocabulary before provision – shorter / longer - Mass vocabulary before provision - Capacity vocabulary before provision - Copy. Continue and create simple patterns	**Loose Parts** Provide a selection of different sized lids. Have a large sheet of paper with outlines of the lids drawn on. Ask the children to match each lid to the correct outline on the paper. **Maths Area** Put out a selection of number shapes in matching pairs. Choose a shape and ask the children to find the shape that matches yours. Alternatively hide one of the shapes and ask the children to match the rest to find which shape is missing. **Construction** Join the children in their block play. Can we build towers that match? Challenge them to build towers of a matching height. Do they look the same? Do the towers always need exactly the same blocks? **Finger Gym** Provide a large collection of beads in different colours, shapes, sizes etc and several small pots. Encourage the children to sort the beads into the pots and explain how they have sorted them. **Sand and Water** Provide equipment in 2 distinct sizes. For example, a big bucket and a little bucket, a tall jug and a short jug. Encourage the children to compare the objects and to explore how many scoops each will hold. They could also count how many large scoops and how many small scoops a container will hold. **Loose Parts** Provide a collection of loose parts – buttons are ideal and encourage the children to sort these in different ways. For example they could sort by material, shape, colour, texture. The Button Box by Margarette S Reid is an excellent starting point. **Outside** Give each child a different compare bear. Have matching compare bears placed around the outside area. Ask the children to find a bear that matches theirs. How do they know it matches? Are their bears big or small? **Blocks** Children can use a number of characteristics and attributes to sort blocks in the construction area. Using words such as: stack, roll, shape, large, small etc will prepare them for their future learning on 3D shapes too. **Outside** Build a tower using large outdoor blocks, cushions or crates. Challenge the children to make a shorter tower, a taller tower. How many crates or blocks did they use? What is the tallest/shortest tower they can build? **Snack** Provide a selection of fruit cut into small pieces. Encourage the children to make an edible repeating pattern before they eat their snack. They might even like to build a fruit kebab.	Show 'finger numbers' up to 5. 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'). Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. Make comparisons between objects relating to size, length, weight and capacity. Talk about and identifies 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. Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity	Numicon   

It's me 1, 2, 3!

Small steps (lessons)
Teach these objectives in a variety of ways

- Representing 1
- Representing 2
- Representing 3
- Comparing 1
- Comparing 2
- Comparing 3
- Composition of 1 – numicon
- Composition of 1 – fives frame
- Composition of 1 – Part part whole
- Composition of 2 – numicon
- Composition of 2 – fives frame
- Composition of 2 – part part whole
- Composition of 3 – numicon
- Composition of 3 – fives frame
- Composition of 3 – Part part whole
- Match numeral to quantity
- Actions that represent the number eg, claps or jumps
- Subitise
- 1 – 1 correspondence
- Cardinality
- Circles and triangles plus exploring in provision
- Go on a shape hunt
- Spatial awareness plus exploring in provision
- Positional language

Ideas for Continuous provision

Dough
Making playdough - work with a small group of children to make the playdough. Use a recipe that involves measuring 1, 2 or 3 cups. Ask children to measure out the ingredients and count the cups.

Loose Parts
Provide a collection of various loose parts or natural objects and some small pots labelled 1, 2 and 3 for the children to fill. Include some unlabelled pots and encourage the children to make their own labels to show how many they put inside.

Outside
Provide a selection of equipment such as beanbags, hoops, quoits, sponges and buckets. Encourage the children to devise their own games. Provide an easel or clipboards so that they can record their scores.

Maths Area
Game for 2 players:
Provide picture cards showing different representations of 1, 2 and 3. Place the picture cards face down. Ask each player to pick a card and then compare to see which card has more. The player with more keeps both cards.

Maths Area
Teach the children simple number track games and encourage them to create their own. Roll a dice and collect 1, 2 or 3 counters to fill their track. Compare – who has the most counters? How many more counters do they need to fill their track?

Outside
Draw a large chalk circle on the ground. Ask the children to collect 3 quoits and to take turns to throw them into the circle.
How many land inside the circle?
How many land outside?
How could they record their scores?

Game
Play The 3 Billy Goats Gruff game. Set up a bridge and 2 fields. Each player builds a 1, 2 and 3 tower to represent the 3 goats. Roll a 1-3 dice and move the corresponding tower over the bridge. The winner is the first player to move all 3 'goats' over the bridge. Encourage the children to notice how many goats are on each side of the bridge as they play.

Show the children a picture which has been made of different shapes. E.g. a boat, a rocket, a house.
What shapes can you see in the picture?
How many triangles can you count?
Can you make your own picture using the shapes?

Go on a shape hunt. Where can you see circles and triangles on the surface of everyday objects?

Look at shapes in art such as Kadinsky's Concentric Circles or Stained in Triangle. Ask the children to discuss the images. How many shapes can they see?

Development Matters / Birth to 5

1.Fast recognition of up to 3 objects, without having to count them individually ('subitising').
3. Say one number for each item in order: 1,2,3,4,5
4. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').
5. Show 'finger numbers' up to 5.
6. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
7. Experiment with their own symbols and marks as well as numerals.
8. Solve real world mathematical problems with numbers up to 5.
9. Compare quantities using language: 'more than', 'fewer than'.
10. 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'.
12. Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'.

Reception

Count objects, actions and sounds.
Subitise.
Link the number symbol (numeral) with its cardinal number value

Visual Rep / Concrete

Numicon







Part part whole



Light and dark

Small steps (lessons) Teach these objectives in a variety of ways	Ideas for Continuous provision	Development Matters / Birth to 5	Visual Rep / Concrete
- Representing four - Counting forwards and back to four - Comparing four - Subitise up to 4 objects - Number names / numerals and quantities to four - More and fewer up to four - Representing five - Counting forwards and back to five - Comparing five - Subitise up to 5 objects - Number names / numerals and quantities to five - More and fewer up to five - One more - One less - Shapes with four sides - Shapes with four sides – different sizes and orientations - Night and day language around a routine - Night and day – counting to important events eg advent	Arrange 4 items on a 5 frame – what do you notice? Prompt the children to notice that 4 is one less than 5 so there will always be one empty space.  Circle game. Everybody stand up. Count round the circle 1, 2, 3, 4 1, 2, 3, 4 1, 2, 3, 4, etc. The person who says 4 sits down each time. Continue to count round the circle until there is only one person remaining. You can also count back 4, 3, 2, 1 and sit down on 1. **Washing Line** Hanging clothes - linking to the book suggested, provide children with items to hang on the washing line. Can they count as they hang the items? How many items do they have altogether? Can we count them back into the basket? **Mark Making** Provide birthday cards with an assortment of ages for the children to match, sort, order and compare. This could start with cards from 1-5 and easily be extended to larger numbers. Blank cards can also be available in case the children would like to make their own cards. **Maths Area**  Set up a number rhyme table to encourage the children to re-enact the songs and rhymes you sing. Provide characters, numerals, books and resources to enhance the area. The rhymes can be changed regularly. **Construction** Show the children one more staircase patterns built with different materials e.g. lego, building blocks, bricks. Encourage them to build their own staircases looking at how many items they use for each step. Can they match them to the number track?  **Loose Parts** Provide square and rectangular frames of different sizes and a selection of loose parts. Ask the children to fill each frame with different loose parts. Which frames hold the most? Compare how many different sized loose parts can fit inside a frame E.g. fir cones, pebbles and shells.	. Say one number for each item in order: 1,2,3,4,5 4. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). 5. Show 'finger numbers' up to 5. 6. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. 7. Experiment with their own symbols and marks as well as numerals. 8. Solve real world mathematical problems with numbers up to 5. 9. Compare quantities using language: 'more than', 'fewer than'. 10. 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'. 19. Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' **Reception** Subitise. Link the number symbol (numeral) with its cardinal number value Understand the 'one more than/one less than' relationship between consecutive numbers. Select, rotate and manipulate shapes in order to develop spatial reasoning skills.	Numicon   

Alive in five

Small steps (lessons) Teach these objectives in a variety of ways	Ideas for Continuous provision	Development Matters / Birth to 5	Visual Rep / Concrete
- Nursery rhymes include zero - Introducing zero - One less (going to zero) - Comparing numbers to 5 – more than or less than - Comparing numbers to 5 – more than, fewer and same - Composition to 5 – numicon - Composition to 5 – five frame - Composition to 5 – Part part whole - Composition to 5 – games - Composition to 5 – hiding games - Composition to 5 – 3 groups - Comparing mass – language - Comparing mass – practical - Capacity – Language - Capacity – practical	**Outdoors** Provide equipment for throwing and rolling games such as skittles, beanbags and buckets. Encourage the children to notice when they knock over 0 skittles or when 0 beanbags land inside the bucket. How could they record their score? **Carpet** Provide a set of dot plates with different arrangements of 0-5 dots. Can you find a plate with 4 dots? With more/fewer than 4 dots? Can you put the plates in order? One of the plates is missing. Can you work out which one? **Number Shapes** Use the number shapes to investigate which smaller numbers combine to make exactly 4 or 5. Check by sitting them on top of the whole number. Is there more than one combination? Which number has the most combinations? **Outside** Provide buckets with strong elastic bands attached to the handle. Ask the children to hold the elastic band and watch how far it stretches when they add an item to their bucket. What do they notice when they add a heavy item? A light item? **Small World** As the children play, prompt them to notice where they see 0 E.g. Could we park 0 cars in this car park? If there are 5 horses and 2 fields, how many horses could be in each field? If all 5 monkeys have fallen off the bed, how many are left on the bed? **Small World** Provide children with the numbers 1 – 5 on cards and various small, similar items such as people, toy cars, plastic animals, etc. Ask them to show you fewer, the same or more than the number they choose. **Construction** Provide cubes in 2 different colours. Ask the children to build a tower of 5. Compare the towers. What is the same? What is different? How many different towers can you build? What if you make towers of 4 cubes? **Mud Kitchen** Provide a variety of pans, bowls, spoons and ladles for the children to use. Add daily recipes on a chalkboard to encourage the children to measure out ingredients. They could also design and create their own recipes.	. Say one number for each item in order: 1,2,3,4,5 4. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). 5. Show 'finger numbers' up to 5. 6. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. 7. Experiment with their own symbols and marks as well as numerals. 8. Solve real world mathematical problems with numbers up to 5. 9. Compare quantities using language: 'more than', 'fewer than'. **Reception** Count objects, actions and sounds. Subitise Compare numbers Explore the composition of numbers to 10.. Link the number symbol (numeral) with its cardinal number value Understand the 'one more than/one less than' relationship between consecutive numbers. Select, rotate and manipulate shapes in order to develop spatial reasoning skills.	Numicon   

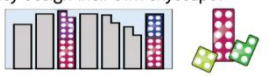
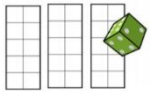
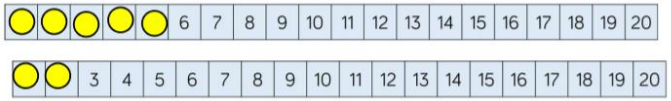
Growing 6, 7, 8

Small steps (lessons) Teach these objectives in a variety of ways	Ideas for Continuous provision	Development Matters / Birth to 5	Visual Rep / Concrete
- 6, 7, 8 - Making pairs - Combining two groups - Comparing numbers to 6 – more than or less than - Comparing numbers to 6 – more than, fewer and same - Composition to 6 – numicon - Composition to 6 – tens frame - Composition to 6 – Part part whole - Composition to 6 – games - Composition to 6 – hiding games - Composition to 6 – 3 groups - Comparing numbers to 7 – more than or less than - Comparing numbers to 7 – more than, fewer and same - Composition to 7 – numicon - Composition to 7 – tens frame - Composition to 7 – Part part whole - Composition to 7 – games - Composition to 7– hiding games - Composition to 7 – 3 groups - Comparing numbers to 8 – more than or less than - Comparing numbers to 8 – more than, fewer and same - Composition to 8 – numicon - Composition to 8 – tens frame - Composition to 8 – Part part whole - Composition to 8 – games - Composition to 8 – hiding games - Composition to 8 – 3 groups - Length and height - Language - Time – Language	**Maths Area** Encourage the children to think about where we see 6, 7, and 8 in everyday life and to make collections of 6, 7 and 8 objects in the classroom. Sort these items into 6, 7 and 8 How else could you show 6, 7, and 8? **Outdoors** Go on a mini-beast hunt. Use magnifying pots to observe the creatures carefully. How many legs can they see? Provide pictures to help them identify what they find. Ask the children to make careful drawings of the creatures they find. **Small World** Encourage the children to match pairs of animals to create their own Noah's Ark procession. Can they build their own arks? Can they fit all the pairs of animals inside? **Outdoors** Provide collections of items that can be arranged into pairs. Encourage the children to notice which quantities make even pairs and which have an odd one left over. Do they notice a pattern? **Maths Area** Provide simple board games and pairs of dice. The children roll 2 dice and move the required number of spaces on the board. Ask: What numbers did you roll? How many altogether? How many do you need to win the game? (1-3 dice could be used first before moving onto 1-6) **Finger Gym** Provide a coat hanger and a basket of pegs. Ask the children to put the pegs onto the hanger and to explore how their numbers can be partitioned in different ways and recombined to see how many altogether. **Small World** Provide materials for the children to construct bridges for the cars. They will need to consider how long, how wide and how high they want their bridges to be and select which blocks to use. They could also investigate who can push their car the furthest? How will they measure this? **Workshop** Provide a variety of ribbon, lace, string. Ask the children to cut pieces and make direct comparisons with a given length (E.g. a piece of ribbon taped to the table) Can they sort the lengths into the same as, longer than and shorter than the given length? They could also line the lengths up in order from longest to shortest.	Say one number for each item in order: 1,2,3,4,5,6,7,8 Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 8. Experiment with their own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 8. 9. Compare quantities using language: 'more than', 'fewer than'. **Reception** Subitise Compare numbers Explore the composition of numbers to 10.. Link the number symbol (numeral) with its cardinal number value Understand the 'one more than/one less than' relationship between consecutive numbers. Explore the composition of numbers to 10. Compare length	Numicon   

Building 9 and 10

Small steps (lessons) Teach these objectives in a variety of ways	Ideas for Continuous provision	Development Matters / Birth to 5	Visual Rep / Concrete
- 9 and 10 - Comparing numbers to 9 – more than or less than - Comparing numbers to 9 – more than, fewer and same - Composition to 9 – numicon - Composition to 9 – tens frame - Composition to 9 – Part part whole - Composition to 9 – games - Composition to 9 – hiding games - Composition to 9 – 3 groups - Comparing numbers to 10 – more than or less than - Comparing numbers to 10 – more than, fewer and same - Composition to 10 – numicon - Composition to 10– tens frame - Composition to 10 – Part part whole - Composition to 10 – games - Composition to 10– hiding games - Composition to 10 – 3 groups - Bonds to 10 – investigation - Bonds to 10 – matching - Bonds to 10—recall (using song/rhyme) - 3d shape – name - 3d shape - sort - Pattern(2)- AB pattern - Pattern (2) – ABB pattern	- **Outdoors** Ask the children to build a wall and set up 10 green bottles. Each time a bottle 'accidently falls' ask the children how many have fallen and how many are standing. Do they always have 10 in total? **Finger Gym** Make a caterpillar by threading some beads onto a pipe cleaner. Ask the children to make caterpillars with more beads and fewer beads than you. Which caterpillar is the longest? Which is the shortest? Can we arrange the caterpillars in order? **10 Hunt** Hide 10 items (rubber ducks, beanbags etc) around the outside area and chalk a large 10 frame onto the ground. As the children find the items, they put them into the 10 frame. Prompt the children to use the 10 frame to help them see how many they have found and how many are still hiding. **Art** Show examples of objects, wallpaper or fabric showing patterns from different cultures or traditions. Encourage the children to discuss and recreate the patterns and then to design their own patterns in a similar style. **Outdoors** Provide a starting line. Ask the children to take 9 giant steps, 9 tiny steps, 9 jumps, 9 tiptoes etc. How far do they travel each time? Who can travel the furthest in 9 giant steps? Who can travel the shortest distance with 9 tiny steps? **Maths Area** Provide a set of dominoes. Can the children sort them into sets of dominoes with 7 spots, more than 7 spots and fewer than 7 spots? In pairs, play Who Has More With the dominoes face down, choose one domino each and compare the spots. The player with the most spots can keep the pair. **Dough** Ask the children to make 3-D shapes using the dough. Ask: Which shapes are the easiest to make? Why? Which are harder to make? Why? How did you make the flat sides?	Say one number for each item in order: 1,2,3,4,5,6,7,8, 9, 10 Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 10. Experiment with their own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 10. Compare quantities using language: 'more than', 'fewer than'. Talk about and explore 3D shapes using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round' Extend and create ABAB patterns – stick, leaf, stick, leaf **Reception** Subitise Compare numbers Explore the composition of numbers to 10.. Link the number symbol (numeral) with its cardinal number value Understand the 'one more than/one less than' relationship between consecutive numbers. Explore the composition of numbers to 10. Continue, copy and create repeating patternsda Automatically recall number bonds for numbers 0 - 10	Numicon   

To 20 and beyond

Small steps (lessons) Teach these objectives in a variety of ways	Ideas for Continuous provision	Development Matters / Birth to 5	Visual Rep / Concrete
- Numbers to 20 – 10 frames - Numbers to 20 – Numicon - Numbers to 20 – Number blocks - Number to 20 – bead strings - Numbers to 20 – Tower cubes - Recognise 10 and 1 ones – 1 full ten and 1, 1 full ten and 2 - Count in ones and twos 20 - Odd and even to 20 - Count on in 1s from any number - Count on in 2s from any number - Count back in 1s from any number - Count back in 2s from any number - Finding one more Finding one less - Looking at larger numbers with 100 squares - Recap shapes and properties – triangle, circle, rectangle, square - Rotating shapes – same shape - Geoboards - Why don't shapes fit? - Matching shapes - Positional language to describe where they are in relation to other shapes	**Maths Area** Provide black outlines of a cityscape for the children to fill using the number shapes. Can they see which number has filled each tower? Is there more than one way to do this? Can they design their own cityscape?  **10 Frame Fill** Each player starts with 3 empty 10 frames. They take turns to roll a dice and collect the corresponding number of counters or cubes. They must roll the exact number to reach 30 The first player to reach 30 wins the game.  **Race to 20 (and Beyond)** Provide a number track for each child. Children take turns to roll a dice. If they roll 1-5, they collect the corresponding counters to fill their track. If they roll a 6 they miss a turn.  **Funky Fingers** Use the geoboards and elastic bands. Challenge the children to make as many different triangles as they can. How do they know they are all triangles? How many 4-sided shapes can they make? Does the geoboard work for making circles? **Construction** Provide simple models or pictures of models. Ask the children to select the shapes they need and position them to replicate the model. Can they design a model for their friend to replicate? This can be done on a larger scale outside.	10. 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'. 11. Understand position through words alone – for example, "The bag is under the table," – with no pointing. 14. Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc **Reception** Count beyond ten. Compare numbers Understand the 'one more than/one less than' relationship between consecutive numbers. Select, rotate and manipulate shapes in order to develop spatial reasoning skills. **Early learning** Verbally count beyond 20, recognising the pattern of the counting system Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	Numicon   

First, then and now

Small steps (lessons) Teach these objectives in a variety of ways	Ideas for Continuous provision	Development Matters / Birth to 5	Visual Rep / Concrete
- Add - First, then and now language with re-counting - Add - First, then and now language counting on from the 1st number given - Add - Number stories – worded using first, then and now – number line - Add - Number stories – worded using first, then and now – tens frame - Subtraction - First, then and now language with re-counting - Subtraction - First, then and now language counting on from the 1st number given - Subtraction - Number stories – worded using first, then and now – number line - Subtraction - Number stories – worded using first, then and now – tens frame - Spatial reasoning two - Combining shapes to make new shapes – squares - Combining shapes to make new shapes – triangles - Separate shapes to make new shapes – squares - Separate shapes to make new shapes – triangles - Tangrams - Pattern blocks	**Outdoors** Share the story Mr Gumpy's Outing by John Burningham. Ask the children to build a boat and to create their own first, then, now stories as different groups of characters climb aboard. Encourage children to count how many altogether as more children join them. **Maths Area** Encourage the children to adapt and re-enact favourite rhymes such as 10 Green Bottles by making 1, 2, or 3 fall each time. Similarly, they could have 10 Currant Buns and choose to buy 1, 2, or 3 buns. Prompt the children to say how many are left after each verse. **Maths Area** Provide some paper rectangles, squares and triangles. Encourage the children to predict which new shapes will be made if the shapes are folded or cut in different ways and then investigate to see. **Triangles** Provide a set of pattern blocks or similar and challenge the children to build as many different triangles as they can. Who can build the largest triangle? The smallest? How many different ways can they find to build the same sized triangle? (Cardboard templates with a cut out triangle for the children to fill will provide support) **Construction** The children take turns to roll a 1-3 dice and collect 1, 2 or 3 cubes to add to their tower. If they are ready, encourage them to count on as they add their cubes. How high can they build their towers before they topple? **Outdoors** A game for 2 children. Ask the children to line up 10 pebbles or shells. The children take turns to choose whether they take 1, 2 or 3 pebbles. The winner is the player who avoids taking the last pebble.	Fast recognition of up to 3 objects, without having to count them individually ('subitising'). Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Solve real world mathematical problems with numbers up to 5. Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' Combine shapes to make new ones – an arch, a bigger triangle etc. **Reception** Subitise. Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can Select, rotate and manipulate shapes in order to develop spatial reasoning skills. **Early leaning goals** Have a deep understanding of number to 10, including the composition of each number. Subitise (recognise quantities without counting) up to 5	Numicon   

Find my pattern

Small steps (lessons) Teach these objectives in a variety of ways	Ideas for Continuous provision	Development Matters / Birth to 5	Visual Rep / Concrete
- Real life doubles – eg socks - Real life including games – including symbol language - Doubles – numicon - Doubles – cubes / dominoes / mirror play - Doubles – ten frames - Doubles and non-doubles - Sharing equally – language - Sharing not equal – language - Introduce half - Sharing not equal - Sharing and grouping - Real life odd and even (pairs) - Numicon odd and even (groups) - Cubes odd and even (groups) - Ten frames odd and even (sorting) - Hundred square odd and even - Construction (blocks and bricks) - Models and 3d shapes - Make a scene from a story - Covering games (barriers) - Covering games (models behind back)	**Art Area** Provide large paper with a fold down the middle. Encourage the children to make doubles by adding blobs of paint to one side of the paper only. Then fold the paper over to make the double. Can they predict how many blobs of paint there will be altogether if they start with 3 blobs? **Snack** Encourage the children to sit with their friends in small groups for snack or have a picnic outside. Provide quantities of food that can be shared onto their plates. For example a box of raisins, a handful of crackers, some sticks of carrot or slices of banana. **Feely Bag** Place the number shapes into a bag. Ask the children to feel inside the bag and find an odd number. How did they know it was odd? Can they find an even number? Can they sort the number shapes into odd and even? Can we line them up to see the odd, even, odd, even pattern as we count? **Outdoors** Have number shapes hidden around the outdoor area. Give each child a number shape and ask them to find another one the same to make a double. Encourage them to say the double they have found, e.g. Double 5 is 10__ **Teddy Bear Picnic** Provide teddy bears, plates and small quantities of loose parts for representing different food items. Ask the children to share out the loose parts fairly so that each teddy gets the same. Are there any items left over? What will happen if another teddy joins the picnic? **Art Area** After reading One Odd Day, encourage the children to create their own odd and even pictures. Look at the pictures together. Is this an odd or an even picture? How do you know? Encourage the children to talk about the pictures. How many odd or even features can they spot?	**Reception** Continue, copy and create repeating patterns **Early learning goals** Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	Numicon   

On the move

Small steps (lessons) Teach these objectives in a variety of ways	Ideas for Continuous provision	Development Matters / Birth to 5	Visual Rep / Concrete
- Real life problems – numbers to 10 - Real life problems – Number bonds to 10 - Real life problems – doubling - Real life problems – grouping - Real life problem sharing equally including how to share remainders - Real life problems – numbers to 20 - Patterns and relationships – Cuisenaire rods - Patterns and relationships – blocks - Patterns and relationships – pairs eg, ears - Patterns and relationships – continue patterns - Patterns and relationships – ABBC - Spatial reasoning – understanding maps - Spatial reasoning – putting things on maps - Spatial reasoning – map school to home - Spatial reasoning – Orienteering - Spatial reasoning – stories	**Water Area** Provide a range of different sized and shaped containers and some pebbles. Ask the children to half-fill their containers with water. What happens to the water if they add pebbles to their container? How many pebbles will they need to add to make the container overflow like Mr Archimedes' bath? **Outdoors** Challenge the children to solve problems on a large scale: The playground is a crocodile-infested swamp! How could we rescue teddy without putting our feet on the ground? Can you build a shelter to keep everyone dry? How could we fill the bucket with water when all of our containers have holes? Which team can fill their bucket first? **Outdoors** Provide quoits or beanbags to throw and hoops or buckets. Encourage the children to devise their own scoring systems where the harder targets score more points. Encourage them to keep a tally of their points as they play. How many different ways are there to score 6 points? **Outdoors** Use the natural materials and loose parts to create repeating patterns. Encourage the children to make different patterns which have the same structure? Can they build a circular repeating pattern which continues around the circle? Is there more than one way to describe this pattern? What starting point would you use? **Outdoors** Provide a simple map of an obstacle course. Encourage the children to use the map to build the obstacle course, checking where things need to be in relation to others. They might also like to design their own obstacle course and draw a map to help them remember their design.	**Reception** Continue, copy and create repeating patterns **Early learning goals** Have a deep understanding of number to 10, including the composition of each number. 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. Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	Numicon   