

Reception Maths Overview – Hasland Infant School

<u>Autumn term</u>	<u>White Rose Steps</u>	<u>Possible activities/texts</u>	<u>Possible stem sentences</u>	<u>Links to curriculum</u>
Getting to know you x2 weeks				
Match, sort and compare x2 weeks	1. Match objects 2. Match pictures and objects 3. Identify a set 4. Sort objects to a type 5. Explore sorting techniques 6. Create sorting rules 7. Compare amounts	<u>Indoors</u> Selection of objects for children to find two that are the same. Play matching pairs/snap games Children to have pictures/objects e.g. a knife and a fork. Can they identify what is missing? A spoon. Sorting objects based on colour/shape of pasta Use animals – how could they be sorted? Two legs/four legs/stripes etc. Sorting into sets e.g. conkers and pine cones <u>Outdoors</u> Children to use large construction to build two towers. Are they the same? How do you know? Set the table in the home corner – can children identify when something is missing/different e.g. a blue cup instead of a red cup <u>Texts/Rhymes</u>	The ____ are the same The ____ are different The _____ does not match because _____ I have sorted the objects by _____	Birth to 5 Matters – Range 6 – Spots patterns in the environment, beginning to identify the pattern “rule”. Development Matters – Reception – Compare numbers. Birth to 5 Matters – Range 5 – Compares two small groups of up to five objects, saying when there are the same number of objects in each group.
Talk about measures and patterns x2 weeks	1. Compare size 2. Compare mass 3. Compare capacity 4. Explore simple patterns 5. Copy and continue simple patterns	<u>Indoors</u> Pieces of ribbon – find someone with a shorter/longer piece Sorting objects for the three bears	The ____ is bigger/smaller than the ____	Development Matters – 3 and 4-year-olds – Make comparisons between objects relating to size, length, weight and capacity.

	6. Create simple patterns	Balance scales and objects to explore weight. Include a large light object and a small heavy object Use musical instruments to create a pattern e.g. tap, tap, shake <u>Outdoors</u> Variety of sizes of boxes and objects to fit inside. Which will fit in which? How do you know? Coloured liquid to make potions – you need more pink than green Digging tools and different sizes of buckets in sand for children to fill. This bucket needs less than this bucket Large materials e.g. tyres/planks/crates to create patterns with Hunt around school for objects to create a pattern with e.g. sticks and leaves <u>Texts/Rhymes</u> Clap your hands and wiggle your fingers Beep Beep Vroom Vroom	The ____ is longer/shorter than the ____ The ____ is heavier/lighter than the ____ The ____ holds more/less I see a ____ pattern The ____ comes next in the pattern The pattern is _____, _____	Birth to 5 Matters – Range 4 – Explores differences in size, length, weight and capacity. Birth to 5 Matters – Range 5 – In meaningful contexts, finds the longer or shorter, heavier or lighter and more/ less full of two items. Development Matters – 3 and 4-year-olds – Talk about and identify the patterns around them. • Birth to 5 Matters – Range 5 – Explores and adds to simple linear patterns of two or three repeating items. Development Matters – Reception – Continue, copy and create repeating patterns. Explores and adds to simple linear patterns of two or three repeating items. Joins in with simple patterns in sounds, objects, games and stories, dance and movement, predicting what comes next Birth to 5 Matters – Range 5 – Creates their own spatial patterns
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				showing some organisation or regularity.
It's Me 1, 2, 3 x2 weeks	- Find 1, 2 and 3 - Subitise 1, 2 and 3 - Represent 1, 2 and 3 1 more 1 less - Composition of 1, 2 and 3	<u>Indoors</u> Different representations of 1, 2 and 3 Simple track game with a dice to 3 to subitise Have three bowls upside down covering objects 1, 2 or 3 things. Lift a bowl quickly for children to say how many there are Dots on plates for children to subitise 5 frames Play a drum 1, 2 or 3 times. Children get that many objects Drop pebbles into a container. How many would there be if there was one less? <u>Outdoors</u> What time is it Mr Wolf – It's one more than 2. Children to make a train of three people. One of the people stops at the station – there is one less. How many are there now? <u>Texts/Rhymes</u> Anno's Counting Book When I was 1.... Hickory Dickory Dock One Elephant Went Out to Play The Gingerbread Man	There are 1, 2, 3 _____ There are _____ altogether I can see _____ I can see _____ without counting _____ is one more than _____ _____ is one less than _____ One more than _____ is _____ One less than _____ is _____ If _____ is a part and _____ is a part then the whole is _____	Development Matters – Reception – Count objects, actions and sounds. Link the number symbol (numeral) with its cardinal number value. Birth to 5 Matters – Range 5 – Links numerals with amounts up to 5 and maybe beyond. Development Matters – Reception – Subitise Birth to 5 Matters – Range 5 – Subitises one, two and three objects (without counting) Development Matters – Reception – Understand the 'one more than/one less than' relationship between consecutive numbers. Birth to 5 Matters – Range 5 – Beginning to recognise that each counting number is one more than the one before. Birth to 5 Matters – Range 5 – Positive relationships –

				Emphasise the one more, one less pattern in rhymes and traditional tales, asking children to predict the next number. Development Matters – Reception – Explore the composition of numbers to 10 Birth to 5 Matters – Range 5 – Separates a group of three or four objects in different ways, beginning to recognise that the total is the same.
Circles and triangles x1 week	1. Identify and name circles and triangles 2. Compare circles and triangles 3. Shapes in the environment 4. Describe position	<u>Indoors</u> Shapes in a feely bag – can you find the circle. Encourage the children to not look and do it by feeling each shape. How did you know it was a circle? Sorting circles and triangles of different sizes and orientations Shape pictures Show 3D shapes – which one will print a circle/triangle? 3D shapes to print/press into play-doh. What shape will you see? Small world characters to put in between, on top, next to. Make shapes using lollysticks – which shape can't you make? Why? <u>Outdoors</u>	This shape is a _____ I know it's a _____ because _____ I see a _____ This shape has _____	Development Matters – 3 and 4-year-olds – Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language. Birth to 5 Matters – Range 6 – Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes.

		Children to use sticks/ropes to make circles and triangles Shape hunt – how many circles/triangles can you see? Set up an obstacle course for children to go under/through/in between Treasure hunt and picture cards e.g. next clue is between the two cones (show this on a picture) <u>Texts/Rhymes</u> The Perfect fit Snake gets into shape		Development Matters – 3 and 4-year-olds Describe a familiar route. Discuss routes and locations, using words like ‘in front of’ and ‘behind’. Birth to 5 Matters – Range 5 – Responds to and uses language of position and direction.
1, 2, 3, 4, 5 x2 weeks	- Find 4 and 5 - Subitise 4 and 5 - Represent 4 and 5 1 more 1 less - Composition of 4 and 5 - Composition of 1 - 5	<u>Indoors</u> Number cards from 1 to 5 showing different representations. Children to order cards – turn one over, which is missing? 5 frames to show 4 and 5. How do you know this is 4/5? Plates with an arrangement of 4 or 5 dots. Hold up a plate and children show that many fingers. Counting 4 or 5 objects. Put the objects in a group – does your group look the same as mine? Construction area – children to make a tower of cubes. They make a tower with one more. Towers to replicate steps. Put 4 objects into a bag. Model putting in one more or one less. How many will there be now? Hide 4 or 5 pebbles in two buckets. How many could there be in each bucket? Children to work out all the possibilities.	There are 4/5 _____ There are _____ altogether I can see _____ I can see _____ without counting _____ is one more than _____ _____ is one less than _____ One more than _____ is _____ One less than _____ is _____	Development Matters – Reception – Link the number symbol (numeral) with its cardinal number value. Birth to 5 Matters – Range 5 – Points or touches (tags) each item, saying one number for each item, using the stable order of 1, 2, 3, 4, 5. Development Matters – Reception – Subitise. Birth to 5 Matters – Range 6 – Engages in subitising numbers to four and maybe five. Development Matters – Reception – Count objects, actions and sounds. Link the number symbol (numeral) with

		Domino template – children choose a number from 0 to 4 and record this on one side. On the other side of the domino children represent one more or one less. <u>Outdoors</u> Have numbers 1 to 5 around the outdoor area. Children to have fly swatters. Lift a bucket to reveal an arrangement of bean bags. Children to find the correct number. Create a bus route using chalk – have a bus driver and a bus stop. When the bus stops one more child gets on each time. Extend with children getting off the bus. Children to have 5 beanbags and a hoop. Throw the 5 beanbags to see how many land in and how many are out of the hoop. Children to use this to explore composition of 5. Similar activity using skittles and a ball. <u>Texts/Rhymes</u> 1, 2, 3, 4, 5 once I caught a fish alive The Hungry Caterpillar One man went to mow Five currant buns 5 little men in a flying saucer Anno's Counting Book	If ____ is a part and ____ is a part then the whole is ____	its cardinal number value. Birth to 5 Matters – Range 5 – Links numerals with amounts up to 5 and maybe beyond. Development Matters – Reception – Understand the 'one more than/one less than' relationship between consecutive numbers. Birth to 5 Matters – Range 5 – Beginning to recognise that each counting number is one more than the one before. Development Matters – Reception – Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects.
Shapes with 4 sides x1 week	1. Identify and name shapes with 4 sides 2. Combine shapes with 4 sides	<u>Indoors</u> Sorting shapes of different size and orientation	This shape is a	Development Matters – 3 and 4-year-olds – Talk about and explore 2D and 3D shapes (for example, circles,

	3. Shapes in the environment 4. My day and night	These shapes have four sides, these don't have four sides Children to have lolly sticks. Predict how many will you need to make a square? How many for a rectangle? Children to have a shadow outline – how many squares/rectangles fit inside? Real life picture of a street of houses – how many squares/rectangles can you see? Children to sort pictures into day and night Children to create their own visual timetable e.g. getting up, coming to school, going to bed. <u>Outdoors</u> Shape hunt Children to use sticks to make a shape with four sides. Role play in home corner – it's day time what will we be doing? Now it's night time, what will happen now? Moon and sun displayed outside. Children do an action and everyone else has to move to the correct place for day or night. <u>Texts/Rhymes</u> This is the way we brush our teeth... The Perfect Fit Snake gets into shape	This shape has _____ sides/corners I can fold this shape to make a _____ I can see a _____ I know this is/is not a _____ because _____ First we will _____ In the day time I _____ At night time I _____	rectangles, triangles and cuboids) using informal and mathematical language. Birth to 5 Matters – Range 6 – Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes. Development Matters – Reception – Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Birth to 5 Matters – Range 5 – Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes. Birth to 5 Matters – Range 5 – Shows awareness of shape similarities and differences between objects. Development Matters – 3 and 4-year-olds – Begin to describe a sequence of events, real
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				or fictional, using words such as 'first', 'then...' Birth to 5 Matters – Range 6 – Is increasingly able to order and sequence events using everyday language related to time.
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<u>Spring term</u>	<u>White Rose Steps</u>	<u>Possible activities/texts</u>	<u>Possible stem sentences</u>	<u>Links to curriculum</u>
Alive in 5 x2 weeks	1. Introduce 0 2. Find 0 to 5 3. Subitise 0 to 5 4. Represent 0 to 5 5. 1 more 6. 1 less 7. Composition 8. Conceptual subitising to 5	<u>Indoors</u> Show children pictorial representations to identify zero Children to have a full 5 frame and a dice 1 – 3. Children roll the dice and take that many objects off. The first to zero is the winner Matching pairs with numbers 0 to 5 using different representations Clap/bang a drum 3 times Children to listen and repeat by doing one more/one less Pictorial representations of 0 to 5 on a washing line.	I can see zero.... I know this is/is not zero because... There are _____ dots altogether I can see _____ One more/less than _____ is _____ _____ is one more/less than _____ If _____ is a part and _____ is a part then the whole is _____	Development Matters – Reception – Link the number symbol (numeral) with its cardinal number value. Birth to 5 Matters – Range 5 Begin to recognise numerals 0 to 10 Links numerals with amounts up to 5 and maybe beyond Development Matters – Reception – Subitise. Birth to 5 Matters – Range 6 – Engages in subitising numbers to four and maybe five Birth to 5 Matters – Range 6 Uses number names and symbols when comparing numbers, showing interest in large numbers Matches the numeral with a group of items

		Remove one number. Children to use knowledge of one more and one less to identify which is missing Use paper plates with dot patterns. Hold up a number e.g. 2. Find me the plate that shows one more/one less than 2 Use double sided counters – shake them and tip them out. Use counters to identify parts of a whole <u>Outdoors</u> Equipment for throwing and rolling games – children to identify when they have knocked down/got zero in the hoop Blank number track drawn with chalk. Children to roll a dice and move that many spaces up the track – winner is first to get to the end of the track Hold up a number from 0 to 5 – children have to act this out e.g. get two sticks or do three strides/jumps <u>Texts/rhymes</u> Alice the camel Five little snowmen Zero is the leaves on the tree		to show how many there are (up to 10) Development Matters – Reception – Understand the ‘one more than/one less than’ relationship between consecutive numbers. Birth to 5 Matters Range 5 – Beginning to recognise that each counting number is one more than the one before Range 6 – In practical activities, adds one and subtracts one with numbers to 10 Development Matters – Reception – Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 – Shows awareness that numbers are made up of (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects Birth to 5 Matters – Range 6 – 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
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		None the Number		
Mass and Capacity x1 week	1. Compare mass 2. Find a balance 3. Explore capacity 4. Compare capacity 5.	<u>Indoors</u> Children to explore weighing using balance scales Children to explore weighing with numicon – can they make the link that the bigger the number the heavier it is? Children to balance the scales by putting an object on one side and cubes on the other Use heavy small objects and light large objects to challenge misconceptions Different sizes/shapes of containers in water tray with spoons/scoops for children to fill Make the container full, nearly full, nearly empty etc <u>Outdoors</u> Children to make their own balance scales using a coat hanger and plant pots or a crate and a plank Variety of scoops/spoons/ladles in the sand area to explore capacity <u>Texts/rhymes</u> There's a hole in my bucket	The _____ is lighter than the _____ The _____ is heavier than the _____ The scale is balanced because The mass of the _____ is _____ cubes The container holds more/less than _____ The _____ has the same capacity as _____ cubes The container holds _____ spoons The _____ holds more/the most The _____ holds less/the least	Development Matters – Reception – Compare length, weight and capacity. Birth to 5 Matters – Range 6 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 Development Matters – Reception – Compare length, weight and capacity. Birth to 5 Matters – Range 6 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
Growing 6, 7 and 8 x2 weeks	1. Find 6, 7 and 8 2. Represent 6, 7 and 8	<u>Indoors</u>	There are 6/7/8 _____ There are _____ altogether	Development Matters – Reception Count objects, actions and sounds.

	3. 1 more 4. 1 less 5. Composition of 6, 7 and 8 6. Make pairs – odd and even 7. Double to 8 (find a double) 8. Double to 8 (make a double) 9. Combine 2 groups 10. Conceptual subitising	Sorting different representations of 6, 7 and 8 Identifying missing number on a washing line including different representations Plate with dots on – hold up a numeral 0 – 8. Children match this to the correct plate Have a spinner with numbers from 0 – 8. Spin the spinner and children represent that number using objects e.g. cubes/a ten frame. Challenge children to make one more/one less Have 6 cubes under a blanket. Explain to the children you are going to take one away, how many are there? Dominoes to find different possibilities that total 6, 7 and 8 Beanbags and a bucket for children to aim. How many are in? How many missed. Similar activity with skittles Duck ponds/fish ponds and linking fish to split 6, 7 and 8 into two parts Pom poms and egg boxes – children to put 6, 7 and 8 pom poms. Which can go in in pairs? Why?	One more/less than ____ is ____ ____ is one more/less than ____ If ____ is a part and ____ is a part then the whole is ____ I know this is a pair because ____ ____ is an odd/even number Double ____ is ____ ____ and ____ make ____	Link the number symbol (numeral) with its cardinal number value. Birth to 5 Matters – Range 6 Uses number names and symbols when comparing numbers, showing interest in large numbers Estimates of numbers of things, showing understanding of relative size Counts out up to 10 objects from a larger group Development Matters – Reception – Understand the ‘one more than/one less than’ relationship between consecutive numbers. Birth to 5 Matters – Range 6 – In practical activities, adds one and subtracts one with numbers to 10 Development Matters – Reception – Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects Development Matters – Reception – Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects
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		Children to have two dice. Children to roll the dice – when they get a double they can get a counter. First child to get three counters is the winner Magic doubling pot e.g. cauldron. When I put something in, double come out. Model putting in one cow and then pulling out two Domino patterns on cars. Park the cars in the correct numbered space in the car park Children to have fish and nets. One catches some fish, partner repeats. How many do we have in total? Variety of objects for children to put into pairs e.g. animals/socks Animals and a mirror to support doubles using the reflection <u>Outdoors</u> Children set up the home corner ready for 6, 7 or 8 people e.g. 6 chairs/places set around the table Shout out a number and ask children to make one more/one less than that		Development Matters – Reception – Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects Development Matters – Reception – Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects Development Matters – Reception – Subitise. Birth to 5 Matters – Range 6 – 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
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		number using large objects e.g. loose parts Chalk a large ten frame/use masking tape. Ask children to fill the 10 frame in pairs. What do they notice? Hide numicon in the outdoor area. Hold up a piece of numicon and children have to find the double same piece to show doubles <u>Texts/rhymes</u> One man went to mow There were 5 in the bed Two of everything.		
Length, height and time x2 weeks	1. Explore length 2. Compare length 3. Explore height 4. Compare height 5. Talk about time 6. Order and sequence time	<u>Indoors</u> Children to make worms out of play-doh – which is the longest/shortest Sorting objects into short and long – always compare each object back to a constant object Lengths of ribbon for children to order Children to use cubes to measure how long objects are Children to use construction to build different towers – which is the tallest/shortest? Can you make two towers that are the same length?	The _____ is long/short The _____ is the longest/shortest The _____ is tall/short Tomorrow we will _____ Yesterday we _____	Development Matters – Reception – Compare length, weight and capacity. Birth to 5 Matters – Range 6 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 Development Matters – 3 and 4-year-olds – Begin to describe a sequence of events, real or fictional, using words such as ‘first’, ‘then...’ Birth to 5 Matters – Range 6 – Is increasingly able to order and

		Compare heights of children – who is the tallest/shortest? Sequence days of the week to make a class timetable – can children name things that happen on certain days e.g. PE day Have photos of a familiar activity e.g. getting dressed/the school day. Can children sequence these by pegging them on a washing line? Variety of timers and simple activities e.g. how many cubes can you stack before the timer runs out? <u>Outdoors</u> Hunt for sticks – sort them into long and short when compared to a chosen object Children to stand on a line. All children to throw a bean bag – who has thrown the longest distance? Use large objects to measure height e.g. crates What time is it Mr Wolf <u>Texts/rhymes</u> Days of the Week Mr Wolf's week		sequence events using everyday language related to time Beginning to experience measuring time with timers and calendars
Building 9 and 10 x3 weeks	1. Find 9 and 10 2. Compare 9 and 10	<u>Indoors</u>	There are more/less ____ than ____	Development Matters – Reception Count objects, actions and sounds.

	3. Represent 9 and 10 4. Conceptual subitising to 10 5. 1 more 6. 1 less 7. Composition to 10 8. Bonds to 10 (2 parts) 9. Make arrangements of 10 10. Bonds to 10 (3 parts) 11. Doubles to 10 (find a double) 12. Doubles to 10 (make a double) 13. Explore odd and even	Picture cards showing 9/not 9 to sort Dominoes to sort into ones with 9, more than 9 and less than 9 Have a handful of counters – children to estimate how many there are. Children repeat with a partner – who has the most? Challenge children to represent 9 and 10 using different objects e.g. animals. Children could use two cows and a duck to show 10 legs Dot plates for children to talk about what they see within numbers 9 and 10 e.g. 4 and 5 Children to have a bingo style card with 6 numbers. Teacher to hold up a number e.g. 8. If they have one more than that number on that card they cover it with a counter Dot plates – use a spinner to generate a number between 5 and 10. Children to choose two plates that make up that number Have a magic number between 0 and 10. Children to turn two cards over like	There are the same number of ____ If ____ is a part and ____ is a part then the whole is ____ 1 more than ____ is ____ ____ is one more than ____ 1 less than ____ is ____ ____ is one less than ____ The whole is ____ I see a ____ and a ____ I can see that ____ is made up of ____, ____ and ____ Double ____ is ____ I know this is an equal/unequal group because.... ____ is odd/even because...	Link the number symbol (numeral) with its cardinal number value. Birth to 5 Matters – Range 6 Uses number names and symbols when comparing numbers, showing interest in large numbers Estimates (of) numbers of things, showing understanding of relative size Counts out up to 10 objects from a larger group Birth to 5 Matters – Range 6 Matches the numeral with a group of items to show how many there are (up to 10) Development Matters – Reception – Subitise. Birth to 5 Matters – Range 6 – 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 Development Matters – Reception – Understand the ‘one more than/one less than’ relationship between consecutive numbers. Birth to 5 Matters – Range 6 In practical activities, adds one and subtracts one with numbers to 10 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)
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		matching pairs – if they total the ‘magic number’ they win Use numicon to find pairs of numbers/three numbers that total 10 Train with dots on the carriages. Can children make a train with 10 dots? Give out pieces of numicon – can children find their double? Sorting representations that show doubles e.g. two representations of 5 Children to use 10 frame and two different coloured counters to show a double e.g. 3 red counters and 3 yellow counters Use numicon in a feely bag for children to sort into odd and even Dominoes to explore doubles <u>Outdoors</u> Hold up a number card and children to do that many actions Hide some objects under a bucket – what do you see? Children to use a fly swatter to swat the corresponding number Draw a large ten frame using chalk. Have 10 beanbags for		Development Matters – Reception – Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects Development Matters – Reception – Automatically recall number bonds for numbers 0–5 and some to 10. Birth to 5 Matters – Range 6 Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and “+” or “-”
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		children to throw. How many land in. Use this to work out bonds to 10. Similar activity with skittles. Set up a bus using chairs (two rows of 5 – similar to a 10 frame) Children get on the bus. Talk about how many passengers and how much space there is left to explore bonds to 10 <u>Texts/Rhymes</u> 10 currant buns One potato, two potato Ten green bottles 5 little men in a flying saucer 10 black dots Double the Ducks		
Explore 3-D shape x2 weeks	1. Recognise and name 3D shapes 2. Find 2-D shapes within 3-D shapes 3. Use 3-D shapes for tasks 4. 3-D shapes in the environment 5. Identify more complex patterns 6. Copy and continue patterns 7. Patterns in the environment	<u>Indoors</u> Matching 3D shapes to real life objects e.g. cylinder to pringles tube Sorting shapes into different hoops e.g. all the shapes with flat faces and curved faces Feely bag for children to describe and identify shapes Children to use play-doh/construction to make different 3D shapes. Which shapes are easiest to make? Why?	This shape is a _____ The shape is the same/different because..... This shape has a flat/curved face I can see a _____ on the _____	Development Matters – Reception – Select, rotate and manipulate shapes to develop spatial reasoning skills. Birth to 5 Matters – Range 6 – Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) Development Matters – Reception – Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.

		Dip a 3D shape in paint and print with it, what 2D shape will it make? 3D shapes and a ramp – which shapes will roll down the ramp? Why? Use 3D shapes to build a tower, which will make the best tower? Wrap 3D shapes in foil – can children guess which shape it will be? How do they know? Demonstrate a pattern using actions e.g. clap, clap, jump. What do they notice? Show children more complex patterns e.g. AAB, ABB, ABBA, ABCD with a deliberate mistake for them to identify Give children a grid with a space in the middle. Ask them to see which patterns will fit inside the grid e.g. AAB, ABB, ABBA or ABCD Show children patterned wrapping paper – can they describe the pattern? Children to create their patterns in a circular form as well as linear <u>Outdoors</u> Build an obstacle course – what shapes have you used?		Birth to 5 Matters – Range 6 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 Development Matters – 3 and 4-year-olds – 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’. Development Matters 3 and 4-year-olds – Notice and correct an error in a repeating pattern. Reception – Continue, copy and create repeating patterns. Birth to 5 Matters – Range 6 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
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		E.g. crates – cuboids, tyres – cylinder 3D shape hunt Use large construction to build a 3D shape Use large equipment to make a more complex pattern e.g. crates/planks/tyres/sticks <u>Texts/Rhymes</u> Pattern Fish		
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<u>Summer term</u>	<u>White Rose Steps</u>	<u>Possible activities/texts</u>	<u>Possible stem sentences</u>	<u>Links to curriculum</u>
To 20 and beyond x2 weeks	1. Build numbers beyond 10 (10 – 13) 2. Continue patterns beyond 10 (10 – 13) 3. Build numbers beyond 10 (14 – 20) 4. Continue patterns beyond 10 (14 – 20) 5. Verbal counting beyond 20 6. Verbal counting patterns	<u>Indoors</u> Egg boxes with 10 eggs – children to have two boxes, fill one and put some more in the other box. Can their partner identify which number they are representing? Children to stand in a circle and count in turns to 13. Child who says 13 has to sit down. Number tracks to 13 and numbered dice to 3. Children to roll the dice and move up the number track. Question e.g. how many more do you need to get to 13? Outline of numicon ‘cityscape’ children to explore how to fill the ‘buildings’ that total 14 – 20 Pictorial representations of numbers up to 20 and numerals for children to match/fly swat	I can see... I can build... 10/11/12/13 has ten and ___ and ___ makes 11/12/13	Development Matters – Reception – Count beyond ten. Birth to 5 Matters – Range 6 Uses number names and symbols when comparing numbers, showing interest in large numbers 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)

		Children to have towers to 20 but muddled up. One tower is missing. How will we work out which is missing? Discuss ordering the towers and working out which one is missing. Numbers up to 30 in the middle of the circle – children to fish for a number. Count round the circle starting with this number. Children to sit in a circle with legs out straight – choose a target number e.g. 15. Count round the circle, if you say the target number you have to put one of your legs away. Ping pong counting – bat a number to each other as you count to 30. <u>Outdoors</u> Children to play ‘What time is it Mr Wolf.’ Encourage children to choose 10/11/12 o’clock and count accurately. Crates outside labelled 1 – 5. Children to throw balls/bean bags into the crate. When they total 13 they are the winner. Draw large number track outside – cover some numbers with buckets/bean bags. Children to work out which number is hidden.		
How many now? x1 week	1. Add more 2. How many did I add? 3. Take away 4. How many did I take away?	<u>Indoors</u> Show children 5 cubes. Hide them with a cloth. Add some more cubes to the hidden amount and reveal. Encourage children to identify how many more were added. Hold up a numeral and ask children to represent this on a 10 frame using one colour of counters. Add three more counters in a different colour. How many altogether?	First there were ____ Then ____ more were added Now there are ____ There are ____ altogether First there were ____	Development Matters – Reception – Automatically recall number bonds for numbers 0–5 and some to 10. Birth to 5 Matters – Range 6 – In practical activities, adds one and

		Children to act out rhyme of 5 currant buns. Use words/pictures for first/then/now Show children a numeral and ask them to represent on a 10 frame. Ask children to take one away – can they link this to their understanding of one less? Children to play being pirates. One pirate to have some treasure and close their eyes – the other pirate steals some treasure. Can they spot how much treasure has been stolen? Encourage children to tell their own stories using first/then/now. Children to collect 10 objects. Take it in turns to choose whether to take away 1, 2 or 3 objects. The winner is the person who does not take the last object. <u>Outdoors</u> Make a boat in outdoor learning – start with some children on the boat. Children shut their eyes. Tap some more children to quietly join the boat. Open eyes – can children say how many joined? <u>Texts/Rhymes</u> Ten green bottles 5 currant buns	Then ____ were taken away Now there are ____ There are ____ left	subtracts one with numbers to 10 Birth to 5 Matters – Range 6 – Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and “+” or “-”
Manipulate, compose and decompose x2 weeks	1. Select shapes for a purpose 2. Rotate shapes 3. Manipulate shapes 4. Explain shape arrangements 5. Compose shapes 6. Decompose shapes	<u>Indoors</u> Selection of shapes on carpet for children to explain which is the odd one out. Outlines of shapes for children to fill with triangles/squares/rectangles. Children to create shape pictures	I have chose a _____ because.... This one doesn't belong because _____	Development Matters – Reception – Select, rotate and manipulate shapes to develop spatial reasoning skills. Birth to 5 Matters – Range 5 Chooses items based on their shape

	7. Copy 2-D shape pictures 8. Find 2-D shapes within 3-D shapes	Adult holds up a shape – children have to hold up the matching shape (adults shapes to be held at different rotations). Have 6 unifix cubes – how many shapes could you make? Tangrams Selection of shapes and a star outline – which shapes can be used to make a star? Arrange a selection of shapes on the floor. Ask children if they can find a certain shape e.g. triangle. Can they describe where it is e.g. it is next to the square. Children to sit opposite each other with a barrier in the middle. One child to have an arrangement of shapes – describe this to the other child for them to copy. Selection of squares/triangles/rectangles for children to experiment with to make a different shape. Have a photocopy of a familiar picture of book front cover made into a jigsaw for children to put the pieces back together. Shape pictures for children to copy Show children to shape pictures – what is the same/different e.g. they both have rectangles for doors Shape hunt – finding 2D shapes within 3D shapes Put 2D shapes into a bag and ‘blow them up’ to create 3D shapes Feely bag with 3D shapes inside – children to feel for the 2D shapes on the 3D shapes Two hoops and a range of real life objects – sort the objects into the two hoops e.g. objects with rectangles on such as a tissue	I need a _____ to complete my picture The ____ is next to the ____ The _____ is in front of/behind the ____ Move _____ around/under/over the ____ I used _____ to make _____ I can see a _____ in a _____	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 Birth to 5 Matters - Range 6 – Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look Birth to 5 Matters – Range 6 – Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes Development Matters – Reception – Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Birth to 5 Matters – Range 6 – Enjoys composing and decomposing shapes, learning which shapes
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		box and objects with circles such as a toilet roll tube. <u>Outdoors</u> Children to use large objects e.g. tyres/crates to make a car/bus/van etc. Create an obstacle course – partner to guide a child over the obstacle course explaining to them what they need to do at each point. Shape hunt – 2D shapes on 3D objects <u>Texts/Rhymes</u> Which One Doesn't Belong Mr Grumpy's Motor Car Perfect Square		combine to make other shapes
Sharing and grouping x2 weeks	1. Explore sharing 2. Sharing 3. Explore grouping 4. Grouping 5. Even and odd sharing 6. Play with and build doubles	<u>Indoors</u> Share out pieces of fruit during snack Set up a teddy bears picnic and share food out to each bear Ask children to make groups in provision e.g. if there are 6 butterflies and 3 leaves – how many butterflies will be on each leaf? Children to have 12 cubes. I want you to make towers with 2 cubes. How many towers can you make? Are there are numbers where you couldn't make these kind of towers? Children to sit with a partner – choose a number card. Count out that many objects and share between you. Is it an odd or even number? Play bingo game with number grids Number track of 2, 4, 6, 8 and 10 muddled up. Children to roll a dice and cover the double of the number they have rolled	It is fair/not fair because..... The groups are equal/not equal because..... There are ____ groups of ____ Double ____ is ____ I can see ____ and ____	Development Matters – Reception Compare numbers. Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 Estimates of numbers of things, showing understanding of relative size Counts out up to 10 objects from a larger group Development Matters – Reception Compare numbers. Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 Estimates of

		<u>Outdoors</u> Set up two tyres with squirrels outside and natural resources to share between them Have two bowls of sweets with different amounts in each. Is this fair? Why? Set up a teddy bears picnic and share food out to each bear Set up a throwing game with quoits and buckets. Invite children to come and play and share quoits out between them. Now invite less children to play – how will they be shared this time? Set a 30 second timer – children collect loose parts from the environment. Have they got an odd number or even? Share objects between two hoops to find out. <u>Text/Rhymes</u> The Squirrels who Squabbled Bean Thirteen Odd and Even Song		numbers of things, showing understanding of relative size Counts out up to 10 objects from a larger group Development Matters – Reception Compare numbers. Explore the composition of numbers to 10. Birth to 5 Matters – Range 6 Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects Counts out up to 10 objects from a larger group Development Matters – Reception – Automatically recall number bonds for numbers 0–5 and some to 10. Birth to 5 Matters – Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different
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				ways with a wide range of objects
Visualise, build and map x3 weeks	1. Identify units of repeating pattern 2. Create own pattern rules 3. Explore own pattern rules 4. Replicate and build scenes and constructions 5. Visualise from different positions 6. Describe positions 7. Give instructions to build 8. Explore mapping 9. Represent maps with models 10. Create own maps from familiar places 11. Create own maps and plans from story situations	<u>Indoors</u> Loose parts for children to make/copy a pattern With a partner – one child makes a pattern and the other has to explain their pattern Children to make bracelets/necklaces with complex repeating patterns Children to make circular patterns around paper plates. Challenge – one child makes a pattern on the outside of the plate and one on the inside. What is the same/different about these patterns? <u>Outdoors</u> Show children a pattern using large movements - can children complete the sequence with the next movement? Children to use large scale equipment to make and describe patterns Children to recreate scenes from stories using large scale equipment Have photos taken from different viewpoints of outdoors – can children work out where the photos were taken from? <u>Texts/Rhymes</u> Pattern Fish Pattern Bugs	This is a ____ pattern The ____ comes next My pattern is a ____ pattern	Development Matters – Reception – Continue, copy and create repeating patterns. Birth to 5 Matters – Range 6 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 Development Matters – 3 and 4-year-olds Discuss routes and locations, using words like ‘in front of’ and ‘behind’. Birth to 5 Matters – Range 6 – Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build
Make connections	1. Deepen understanding 2. Patterns and relationships	<u>Indoors</u> Set up a small world e.g. rainforest encourage children to tell number stories.	There are ____ altogether	Development Matters – 3 and 4-year-olds Describe a familiar

		Have a selection of animals in a basket. Children to each have a 10 frame. Children to close their eyes and choose an animal. How many legs does the animal have? Fill that many squares on the 10 frame. First to fill frame is the winner. Ask children – how many legs scenarios e.g. how many legs if I had a dog and a spider. Use loose parts for children to make a repeating pattern – can they make a pattern that goes round in a circle? Photos of everyday scenes e.g. a kitchen. Children to describe where objects are in relation to other objects Give children instructions of a picture to draw e.g. draw a square. Put a triangle on top of the square. Next to the square draw a circle. Children to work in groups with small world equipment – one child to be the leader and tell the others in the group where to put each figure. Pictures of models for children to copy using construction Large maps for children to explore – what can they see? Show aerial views of rooms in a house – everyone's room looks different. Describe the rooms and children to draw their own maps of different rooms in their house. Can they describe the location of different objects? Encourage children to draw their way home from school – what do they pass first and last?	I can see ____ here and ____ there The ____ worked because.... The ____ is above/next to/under the ____ I have put the ____ next to the ____ I can see ____ I have put a ____ on my map	route. Discuss routes and locations, using words like 'in front of' and 'behind'. Birth to 5 Matters – Range 6 Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints Development Matters – 3 and 4-year-olds 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'. Birth to 5 Matters – Range 6 – Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints
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Outdoors

Large piece of blue material represents a lake – class mascot is stuck in the lake. How could we save the class mascot? Work together to solve the problem. How many crates will be need to make a bridge? How could we place them? Do we want to leave a gap between them? If we leave a gap will we need more or less?

Materials to build a bridge – what is the longest/shortest bridge you could make? How could you make the bridge stronger? Encourage children to make a ‘messy map’ of their journey to school – can they use positional language to describe their journey and the order of each step?