



NURSERY Curriculum Progression

MATHEMATICS

Nursery MATHS experiences taken from Development Matters: Non-statutory curriculum guidance for the Early Years Foundation Stage

Birth-Three Years

- Combine objects like stacking blocks and cups. Put objects inside others and take them out again.
- Take part in finger rhymes with numbers.
- React to changes of amount in a group of up to three items.
- Compare amounts, saying 'lots', 'more' or 'same'.
- Develop counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence.
- Count in everyday contexts, sometimes skipping numbers – '1-2-3-5'.

Three-Four Years

NUMBER

- 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'.

SHAPE AND MEASURE

- 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'.
- 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'.

NUMERICAL PATTERNS

- 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...'
- 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.

NUMBER

AUTUMN

CURRICULUM LEARNING ACTIVITIES that support pupils to:

Autumn 1

- Sing counting songs counting up to 5/10. Begin to recite numbers in order to 5.
- Explore 1:1 correspondence by movement of objects.
- Moving objects while saying one number name for each object
- Stable Order Principle and Correspondence Principle.

Autumn 2

- Sing counting songs counting up to 5/10. Recite numbers to 5.
- 1:1 correspondence.
- Explore the Cardinality principle (last number spoken is the quantity in a set).

SPRING

CURRICULUM LEARNING ACTIVITIES that support pupils to:

Spring 1

- Recite numbers to 10.
- Sing counting songs going down from 5. Abstraction principle: doesn't matter what you count, size, shape, colour, sound the quantity is the same.
- Introduce numbers 1, 2 and 3. Numerals. Represent numbers 1 to 3 with fingers.
- Assign one counting word to each object 1-3. Compare quantities to 3 saying which has more/fewer.
- Use language of quantity and know quantity changes when something is added or taken away.

Spring 2

- Recite numbers to 10. Recite backwards from 5.

SUMMER

CURRICULUM LEARNING ACTIVITIES that support pupils to:

Summer 1

- Recite numbers to 10 and beyond. Recite backwards from 10.
- Order numbers to 5 and discuss their position. Represent number. Sing 5 green bottles and draw a representation crossing one out each time.
- Find one more to 5.
- Find the total in 2 groups by counting.

Summer 2

- Recite numbers to 10 and beyond. Recite backwards from 10.
- Solve simple problems by counting total in 2 groups. Record their results.
- Solve number problems within 5 explaining their thinking



NURSERY Curriculum Progression

MATHEMATICS

<p>ASSESSMENT CHECKPOINTS – look and listen for pupils to:</p> <ul style="list-style-type: none"> Recite numbers to 5. Count objects saying one number name for each object to 3. Know that the last number said aloud when counting is the number of objects in that set. 	<ul style="list-style-type: none"> Subitizing to 3. Number 4 and 5. Numerals. 1:1 correspondence to 5. Match numeral and quantity to 5. Finger numbers to 5. Separate 4/5 objects in different ways. Compare quantities to 5 saying which has more/fewer. Order Irrelevance Principle. Doesn't matter what order you count things in. <p>ASSESSMENT CHECKPOINTS – look and listen for pupils to:</p> <ul style="list-style-type: none"> Recite numbers to 10. Represent 1 to 5 with fingers. Give up to 5 objects from a larger group. Can count 1:1 to 5. Count anything to 5 including sounds, actions etc. Recognise the numerals 1 to 5 and match the correct number of objects. Know the Order Irrelevance Principle. Compare groups of up to 5 and say which has more/fewer or the same. 	<p>and recording their results. (Draw 3 ducks by the pond, 2 ducks in the pond, 5 ducks altogether).</p> <p>ASSESSMENT CHECKPOINTS – look and listen for pupils to:</p> <ul style="list-style-type: none"> Recite numbers to 10. Subitize to 3. Order numbers to 5 and discuss their position. Find one more than to 5 using objects. Can represent numbers to 5. Find the total in 2 groups by counting. Represent how they solved a problem within 5 with drawing or marks or numerals.
--	--	--

VOCABULARY:

Number one ten, how many? count, is the same as, more, less, same number as, more than, larger, bigger, biggest, largest, fewer, smaller, less, fewest, smallest, one more, one less, compare, order, before, after, next, between.

SHAPE AND MEASURE

Birth-Three Years

- Climb and squeeze themselves into different types of spaces.
- Build with a range of resources.
- Complete inset puzzles.
- Compare sizes, weights etc. using gesture and language - 'bigger/little/smaller', 'high/low', 'tall', 'heavy'.

Three- Four Years

- 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'.
- 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.

AUTUMN	SPRING	SUMMER
<p>CURRICULUM LEARNING ACTIVITIES that support pupils to:</p> <p>Autumn 1</p> <ul style="list-style-type: none"> Introduction to water and sand play, filling and pouring containers. <p>Autumn 2</p> <ul style="list-style-type: none"> Explore 2D shapes in provision. Positional language. Describe positions and play games 	<p>CURRICULUM LEARNING ACTIVITIES that support pupils to:</p> <p>Spring 1</p> <ul style="list-style-type: none"> Circle, square, triangle. Describe with formal and informal language. Discuss route to school and what is seen on the way. Comparing capacity in the water area. <p>Spring 2</p>	<p>CURRICULUM LEARNING ACTIVITIES that support pupils to:</p> <p>Summer 1</p> <ul style="list-style-type: none"> Sphere and cube. Describe with formal and informal language. Investigate their properties in provision. Comparison of heights of flowers. <p>Summer 2</p> <ul style="list-style-type: none"> Practically combine 2 triangles to make a square



NURSERY Curriculum Progression

MATHEMATICS

<ul style="list-style-type: none"> putting toys in position. Comparing weights of presents. <p>ASSESSMENT CHECKPOINTS – look and listen for pupils to:</p> <ul style="list-style-type: none"> Say when a container is full. Describe a position using positional language on, under, on top of, next to, beside. Use some language of weight. Compare 2 objects and identify the heavier and lighter object. 	<ul style="list-style-type: none"> Explore 3D shapes in provision through construction sets and junk modelling. Build a model town and draw a map. Describe position of buildings. <p>ASSESSMENT CHECKPOINTS – look and listen for pupils to:</p> <ul style="list-style-type: none"> Identify a circle, square and triangle and describe with some mathematical language. Describe a position using positional language on, under, on top of, next to, besides, in front of, behind. Use some language of capacity. Compare 2 objects and identify which is fuller. 	<p>ASSESSMENT CHECKPOINTS – look and listen for pupils to:</p> <ul style="list-style-type: none"> Can talk about a circle, triangle, square, cube and sphere using informal and some mathematical language. Can use some language of height. Can compare 2 objects and identify the tallest and shortest.
---	--	---

VOCABULARY:
 Weigh, heavy, light, heaviest, lightest. Size, compare, too much, too little. Length, height, long, short, tall, taller, longer, shorter, measure. Sides, corners, straight, flat, round.

NUMERICAL PATTERNS

<p>Birth-Three Years</p> <ul style="list-style-type: none"> Notice patterns and arrange things in patterns. 	<p>Three – Four Years</p> <ul style="list-style-type: none"> 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. 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...'
---	--

AUTUMN	SPRING	SUMMER
<p>CURRICULUM LEARNING ACTIVITIES that support pupils to:</p> <p>Autumn 1</p> <ul style="list-style-type: none"> Look at different fabrics and wall papers. Go on a pattern hunt around Nursery. Describe the patterns. <p>Autumn 2</p> <ul style="list-style-type: none"> Recognising ABAB repeating patterns. Look at animal skin patterns and describe. Make patterns with objects in provision. <p>ASSESSMENT CHECKPOINTS – look and listen for pupils to:</p> <ul style="list-style-type: none"> Describe a pattern using informal language. Recognise an ABAB repeating pattern. 	<p>CURRICULUM LEARNING ACTIVITIES that support pupils to:</p> <p>Spring 1</p> <ul style="list-style-type: none"> Discuss daily routines. Sequence 2 familiar events from a story. <p>Spring 2</p> <ul style="list-style-type: none"> Extend ABAB repeating patterns in provision both inside and outside. <p>ASSESSMENT CHECKPOINTS – look and listen for pupils to:</p> <ul style="list-style-type: none"> Can sequence 2 events saying which came first. Can carry on an ABAB pattern. 	<p>CURRICULUM LEARNING ACTIVITIES that support pupils to:</p> <p>Summer 1</p> <ul style="list-style-type: none"> Ongoing opportunities to build and create using shapes in provision and describe what shapes they have used. Spot errors in repeating patterns using shapes, numbers, pictures and colours. <p>Summer 2</p> <ul style="list-style-type: none"> Sequence 4 familiar events from daily routine. <p>ASSESSMENT CHECKPOINTS – look and listen for pupils to:</p> <ul style="list-style-type: none"> Can spot and correct an error in a repeating pattern. Can sequence 4 events saying which came first, then, next.

Vocabulary:
 Pointy, spotty, blobs, dots, stripes, first, next, then.