

Maths Progression map Reception

The rationale for developing a strong grounding in number is:

- Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built.
- In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space, and measures.
- It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

Practitioners will need to know the stages of mathematical development –

- Emergent
- Perceptual
- Figurative
- Counting on
- Facile

	Numbers words and numerals	Numerical Patterns
1 st Phase	<ul style="list-style-type: none"> ● Recognise some numbers of personal significance ● Count forwards and backwards within the number sequence 1 to 5 ● Order numbers in the range 1-5 ● Recognise, say and identify numerals 1 to 5 ● Counting: tagging each object with one number word ● Knowing the last number counted gives the total so far ● Understand the language of more than/less than comparing groups of objects with a group having a widely different number of things ● Part-whole: Identifying a smaller number within a number 	<ul style="list-style-type: none"> ● Continuing the AB pattern ● Recognise attributes of measuring, such as language of length, weight, time ● Start using the vocabulary of measurement such as long, tall, high, heavy (rather than big) ● Develop special awareness through practical activities (make constructions, patterns and pictures, and select shapes which will fit when rotated or flipped in insert boards, shape sorters and jigsaws) ● Develop special vocabulary of position and direction (position: 'in', 'on', 'under'; direction: 'up', 'down', 'across'). ● Develop opportunities to use terms which are relative to the viewpoint such as 'in front of', 'behind', 'forwards', 'backwards' ('left' and 'right' to be used later on as ideas develop.) ● Develop shape awareness through construction
Little BIG MATHS	<ol style="list-style-type: none"> 1. I can count to 10 2. 1. I can count 3 objects <ol style="list-style-type: none"> a. 1+1 2+2 b. 3+3 4+4 5+5 	<ol style="list-style-type: none"> 4. I can show interest in shapes around me 3. I can describe simple 2D shapes around me 2. I can use 3D shapes when I play 6. I can move myself in lots of specific ways 3. I can compare hot to cold 4. I understand hotter and colder 5. I can describe periods of time 1. I can make a whole turn 4. I can create two colour patterns

2nd phase	<ul style="list-style-type: none">● Count forwards and backwards within the number sequence 1 to 10● Use 0 and a numeral to represent it● Recognise, identify, say and represent numerals 1 to 9● Order numerals and quantities in the range 1 to 9● Identify groups with the same number of things● Comparing numbers and reasoning (I would like to have a bag with 5 apples because it's more than a bag with 2 apples)● Subitising up to 5● Match the number symbol to a number of things● Composition to 10: a number can be partitioned into different pairs of numbers● Conservation: Knowing the number doesn't change if things are rearranged (as long as none has been added or taken away)● Inverse operations through practical activities	<ul style="list-style-type: none">● Copying the AB pattern● Start comparing amounts of continuous quantities (length, weight and capacity) such as 'You are taller than me'● Represent spatial relationships and considering/drawing objects from different perspectives
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Little BIG MATHS

1. I can read 1D numbers

1. I can understand numbers to 10

3. I can count 5 objects

5. I can use shapes with purpose as I play

4. I can see when shapes are similar

5. I can recognise a circle

6. I can recognise a square

7. I can recognise a triangle

3. I can recognise a cube

4. I can recognise a pyramid

5. I can recognise a sphere

7. I can describe my own position

3. I can compare 2 different amounts of distance

3. I can compare 2 different amounts of distance

3. I can compare 2 different amounts of space ~ (measures)

6. I can order daily events

1. I can show awareness of half of the amount

3. I can collect data using objects

5. I can create three colour patterns

<p>3rd phase</p>	<ul style="list-style-type: none"> ● Order numbers across the 10 boundary (eg 8 to 11) ● Recognise, identify, say and represent numerals 1 to 9 and beyond ● Say number that comes after a given number within the number sequence 1 to 10 ● Begin to use the ordinal language of first, second and third in practical contexts ● Understand the language of one more than/one less than relationship between consecutive/counting numbers ● Composition: a number can be partitioned into more than two numbers ● Number bonds for numbers 0-10 <p>Have a deep understanding of numbers to 10, including the composition of each number</p>	<ul style="list-style-type: none"> ● Make their own AB pattern ● Showing awareness of comparison and estimating and prediction ● Comparing indirectly (compare one thing with two others for height, weight and capacity) ● Beginning to use units to compare things ● Beginning to use time to sequence events (retelling stories, cooking instructions) ● Verbally count beyond 20, recognising the pattern in the counting system ● Recognise and continue patterns linked to a 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.
<p>Little BIG MATHS</p>	<p>5. I can count 10 objects 1. I can double 1D number</p>	<p>6. I can create a symmetrical picture 10. I can identify 2D shapes in real life 7. I can identify 3D shapes in real life 8. I can describe a variety of different positions for me others or objects as I play 4. I can compare 3 different amounts of distance 4. I can compare 3 different amounts of mass 4. I can play shop 3 making simple calculations 4. I can compare 3 different amounts of space/measurements 8. I know about annual events 6. I can spot, copy and create different patterns</p>

Aspirational phase	<ul style="list-style-type: none"> ● Count forwards and backwards within the number sequence 1 to 20 and beyond ● Say the number that comes before and after a given number within the number sequence 1 to 20 ● Count forwards in twos, fives and tens ● Recognise, say and identify numerals up to 20 and beyond ● Say the number that comes before and after a given number within the number sequence 1 to 30 ● Use the ordinal language of ordinal numbers in a range of contexts 	<ul style="list-style-type: none"> ● Identify the error in the AB pattern ● Identifying the unit of repeat ● Identify simple patterns in the number sequence ● Recognize the relationships between the size and the practical units in practical contexts (Which bag should I use for my shopping?) ● Beginning to experience specific time durations ● Develop the awareness of relationships of shapes within other shapes
Little BIG MATHS	<p>I can count to 20</p> <p>2. I can read the numbers 11-20</p> <p>6. I can count to 20 objects</p> <p>5. I can count On and Count Back 5</p> <p>1 I can count in 10s</p> <p>5. I can add numbers of objects to 10</p> <p>5. I can take away numbers of objects to 10</p>	

Appendix

EYFS Early Adopter

Mathematics

ELG: Number

Children at the expected level of development will:

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

ELG: Numerical Patterns

Children at the expected level of development will:

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

Maths (M)

Number

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

Children estimate a number of objects and check quantities by counting up to 20. They solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups.

Shape, Space and Measure

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

Children estimate, measure, weigh, compare and order objects and talk about properties, position and time.