



EYFS - Mathematics

Current EYFS Expectations (September 2020)

Early Learning Goals

ELG 11 Numbers: Children count reliably with numbers from 1 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.

ELG 12 Shape, space and measures: 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.

Development Matters

Reception

Numbers

42 Children count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number.

43 Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.

44 They solve problems, including doubling, halving and sharing.

E 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. (This descriptor has been amended to reflect the increased level of challenge applied to the expected descriptor following the Tickell review.)

Shape, Space & Measure

30 Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.

31 They recognise, create and describe patterns.

32 They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

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



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40 - 60 months

Numbers

- 26 Recognise some numerals of personal significance.
- 27 Recognises numerals 1 to 5.
- 28 Counts up to three or four objects by saying one number name for each item.
- 29 Counts actions or objects which cannot be moved.
- 30 Counts objects to 10, and beginning to count beyond 10.
- 31 Counts out up to six objects from a larger group. 32 Selects the correct numeral to represent 1 to 5, then 1 to 10 objects.
- 33 Counts an irregular arrangement of up to ten objects.
- 34 Estimates how many objects they can see and checks by counting them.
- 35 Uses the language of 'more' and 'fewer' to compare two sets of objects.
- 36 Finds the total number of items in two groups by counting all of them.
- 37 Says the number that is one more than a given number.
- 38 Finds one more or one less from a group of up to five objects, then ten objects.
- 39 In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.
- 40 Records, using marks that they can interpret and explain.
- 41 Begins to identify own mathematical problems based on own interests and fascinations.

Shape, Space & Measure

- 20 Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes.
- 21 Selects a particular named shape.
- 22 Can describe their relative position, such as 'behind' or 'next to'.
- 23 Orders two or three items by length or height.
- 24 Orders two items by weight or capacity.
- 25 Uses familiar objects and common shapes to create and recreate patterns and build models. 26 Uses everyday language related to time.
- 27 Beginning to use everyday language related to money.
- 28 Orders and sequences familiar events.
- 29 Measures short periods of time in simple ways.



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New Framework from September 2021

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.

Development Matters

Reception

- Count objects, actions and sounds.
- Subitise.
- Link the number symbol (numeral) with its cardinal number value.
- Count beyond ten.
- Compare numbers.
- Understand the 'one more than/one less than' relationship between consecutive numbers.
- Explore the composition of numbers to 10.
- Automatically recall number bonds for numbers 0–10.
- Select, rotate and manipulate shapes in order to develop spatial reasoning skills.
- Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
- Continue, copy and create repeating patterns.
- Compare length, weight and capacity

3 - 4 year olds

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').



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- Show 'finger numbers' up to 5.
- Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
- Experiment with their own symbols and marks as well as numerals.
- Solve real world mathematical problems with numbers up to 5.
- Compare quantities using language: 'more than', 'fewer than'.
- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.
- Understand position through words alone – for example, "The bag is under the table," – with no pointing.
- Describe a familiar route.
- Discuss routes and locations, using words like 'in front of' and 'behind'.
- Make comparisons between objects relating to size, length, weight and capacity.
- Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc.
- Combine shapes to make new ones – an arch, a bigger triangle etc.
- Talk about and 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...'



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Key Changes - September 2021

- The 'Shape, Space and Measure' strand has been removed, though it is still expected that children will have rich learning opportunities in this area.
- Number focus is now to 10, rather than 20.
- Focus on depth of understanding.
- Focus on subitising.
- Greater emphasis on automatic recall and retention of number bonds and facts, rather than a focus on strategies for addition and subtraction.
- Counting focus is now beyond 20.
- New 'Numerical Patterns' strand.
- Greater focus on comparison and the vocabulary for comparison – using quantities rather than numbers.
- Greater focus on numerical patterns, with emphasis on odd and even numbers, sharing and double facts.
- These changes fit with the maths mastery principles the government recommends.

Curriculum Development to support transition - September 2020

- Embed Maths Mastery small step approach using White Rose Hub guidance to work deeply within 10.
- Introduction of Maths Meetings to develop fluency and number recall skills
- Develop language through stem sentences and collaboration.