

Maths in the Early Years

Maths Early Learning Goals

At the end of Reception children are expected to:

ELG: Number

Have a deep understanding of numbers 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

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.

(EYFS Statutory Framework September 2026)

Songs, rhymes, and games

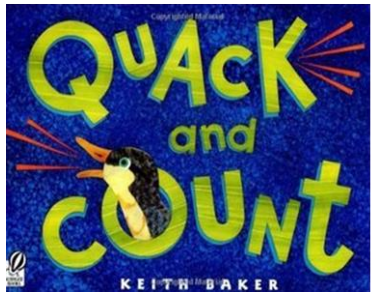
Songs, rhymes, and games help children remember the order of numbers and demonstrate early maths concepts and skills in a fun, repetitive, and engaging way.

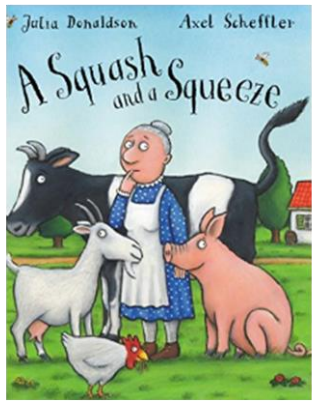


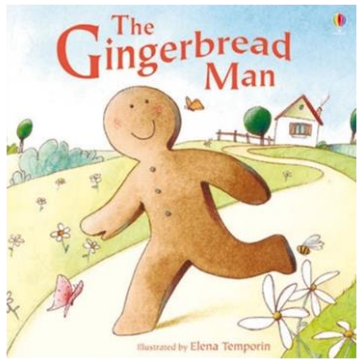


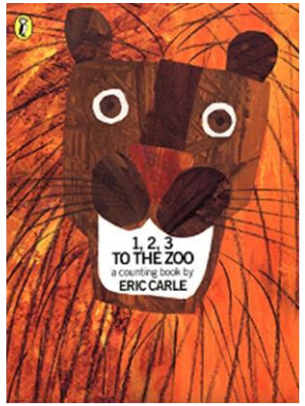


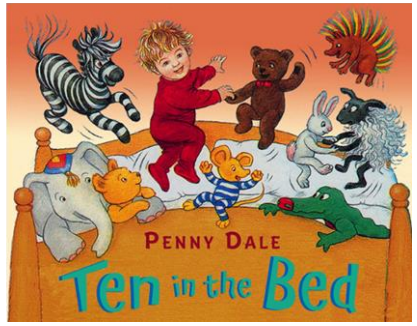
Story Books



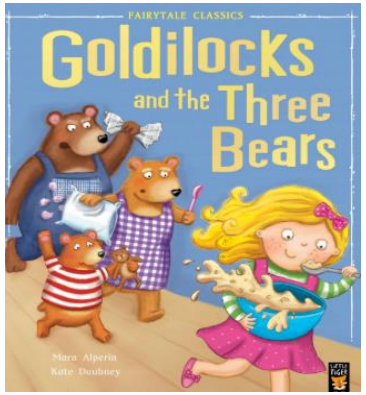


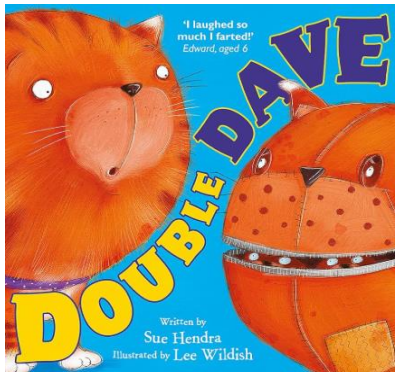


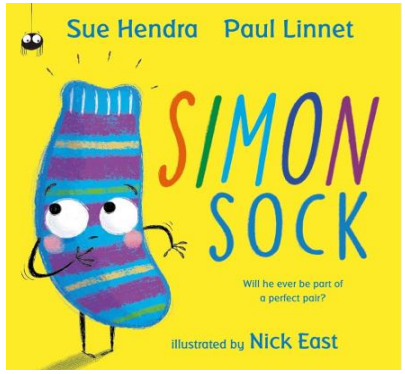


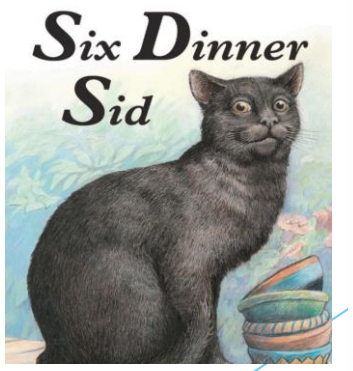


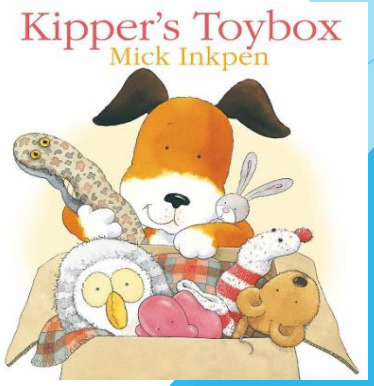
Storybooks help children understand maths in a fun and meaningful way. They place maths in familiar, real-life contexts, helping children see how it applies to everyday situations. They also build language skills by introducing maths vocabulary such as “more” and “less” and encourage problem-solving and reasoning skills through story-based challenges.

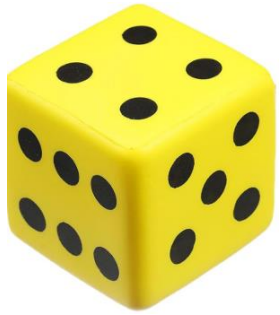












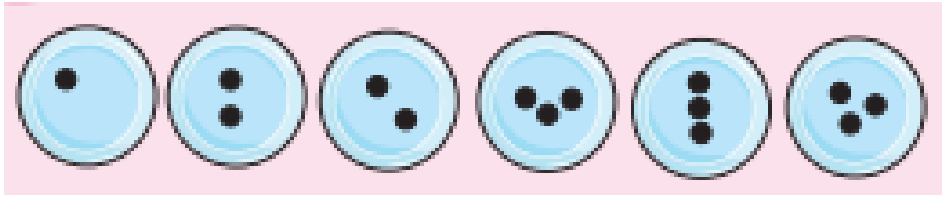
Subitising



Instantly recognising quantities without needing to count them.

Allows children to develop an understanding of what each number looks like, and what it is made up of. Playing dice games, spotting small groups of objects, showing a few toys for a moment and asking how many were seen help to develop this skill.

It is important children see dots or other objects in different arrangements so they understand a number can be represented in different ways.





Counting Principles

Counting might look simple, but children learn it step by step.
They need to understand a few basic ideas before they can truly count objects with meaning.

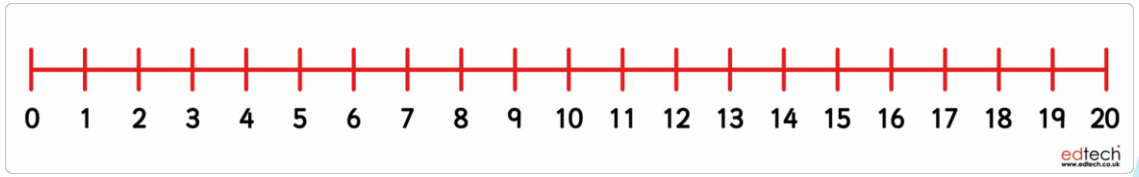
1. The one-to-one principle.
2. The stable-order principle.
3. The cardinal principle.
4. The abstraction principle.
5. The order-irrelevance principle.

1. The stable-order principle

When counting, the numbers have to be said in a certain order.



one, two, three, four, five, six, seven, eight, nine ...



Children need to know all the number names for the amount in the group they are counting. Children should be encouraged to count aloud to larger numbers even though they may not be able to count that number of objects immediately.

2. The one-to-one principle

One number name is assigned to each object that is counted.



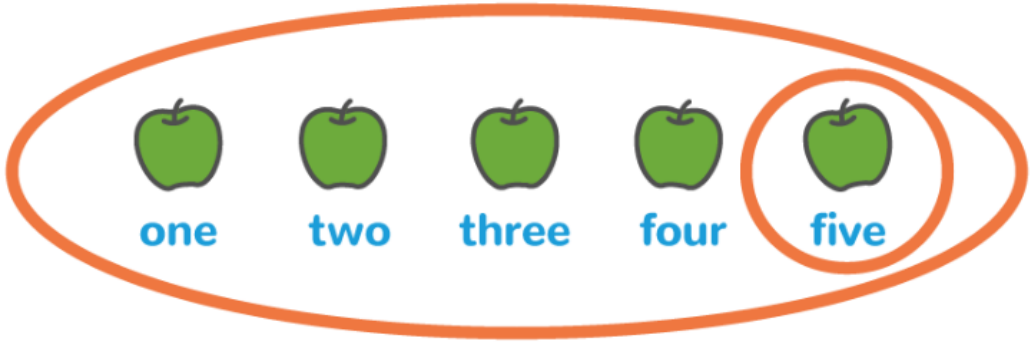


Encourage children to line up objects and touch each one as they count, saying one number name per object. This will help to avoid children counting more quickly when they touch the objects or miss an object out that needs to be counted.

3. The cardinal principle

The number name assigned to the final object in a group is the total number of objects in that group.





From a larger group, children select a given number and count them out.

When asked ‘how many?’, children should be able to recall the final number they said.

4. The abstraction principle

Understanding that anything can be counted, including things that cannot be touched, such as sounds and movements.



1, 2 beats
of the drum

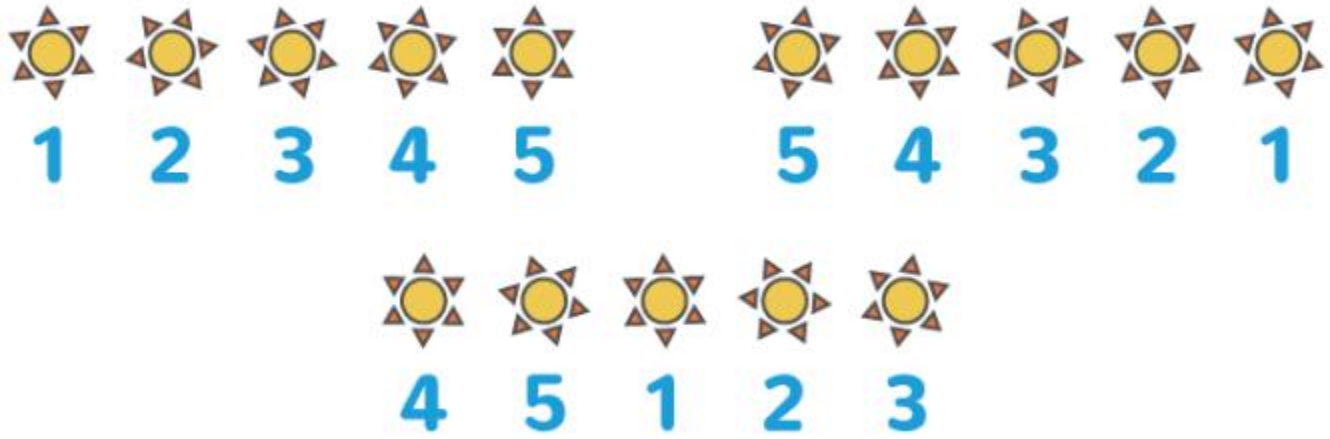


1, 2 bounces
of the ball

When starting to count, many children rely on touching the objects in order to count accurately. Encourage abstraction on a daily basis by counting claps, clicks. Children also learn to visual objects in their head to encourage counting on.

5. The order irrelevance principle

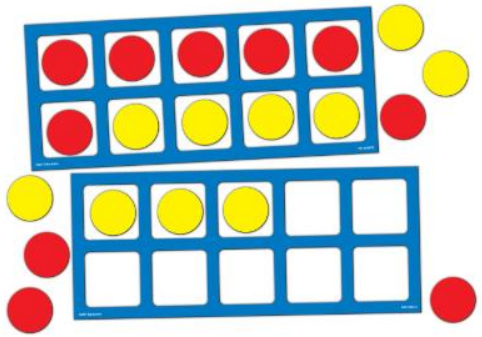
The order in which we count a group of objects is irrelevant. There will still be the same number.



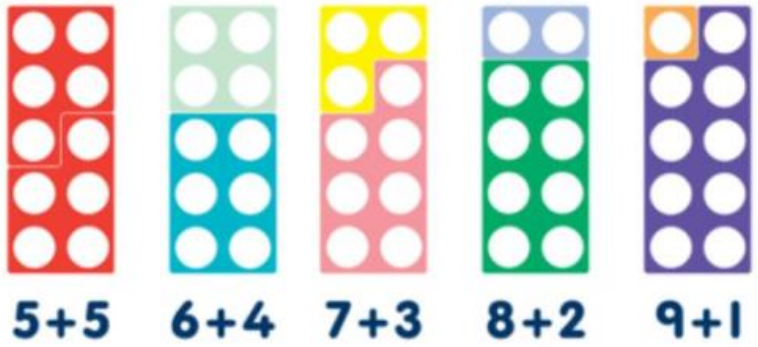
Encourage children to count groups of objects from different starting places - left to right, right to left, top to bottom and bottom to top. Once children have counted a group, move the objects. Do they realise the quantity is still the same?

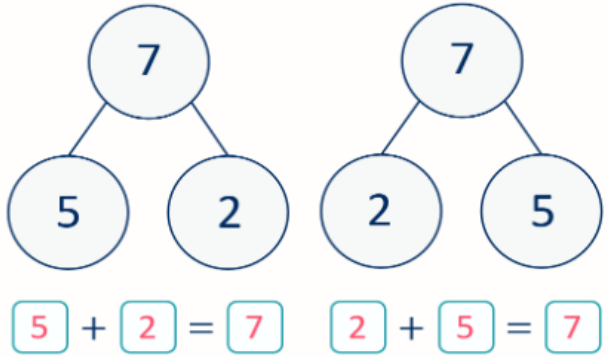
Addition and Subtraction

As children begin to visualise and interpret numbers, they start to recognise the connection with addition and subtraction. This helps build their early number sense, allowing them to see how whole numbers are made up of smaller parts.



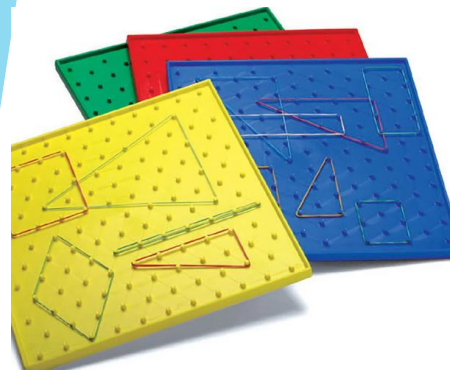




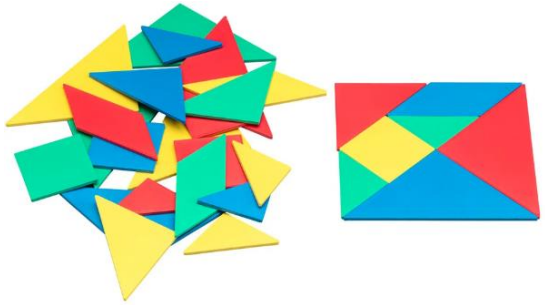


Shape, Space and Measure

Children explore and investigate a variety of 2D and 3D shapes and identify their features. They develop spatial reasoning skills by rotating, manipulating and combining shapes to explore how they fit together and make other shapes. They also learn to continue, copy and create repeating patterns through play based activities and noticing patterns and shapes in their environment.

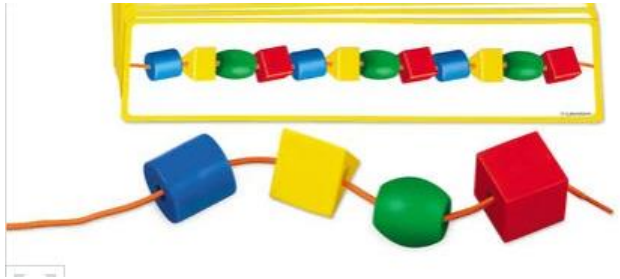












Shape, Space and Measure

Children explore measure by comparing and talking about the length, height, weight, and capacity of different objects using words like longer, shorter, heavier, lighter, full, and empty. They also begin to understand time by talking about daily routines and the order of events.









More things you can do at home

Try incorporating maths into your daily routines and when you're out and about.

- Talk about what day of the month it is. Talk about what day it was yesterday (1 less) and what day it will be tomorrow (1 more).
- Count how many steps it takes to walk somewhere, how many steps up a stair-case or steps up to the playground.
- Share some sweets (or other healthy alternatives!) fairly between your child and yourself 1 at time so that each of you gets the same. Talk about the remainder if you can't share them fairly.
- Count down to going out or doing an activity "We're leaving to go to the park in 20,19,18...5,4,3,2,1,0!"
- During tidy up time count how many toys need to be put away, count out an amount to put away. How many are left?
- Play role play games with cars / other toys e.g. "5 cars are parked in the garage, 2 drive off, how many are there now?" "4 Dolls are having a tea party and 3 teddies join them, how many toys are there now?"
- Play with foam numerals, bath crayons or counting resources in the bath.
- Act out episodes of numberblocks using unifix blocks.
- Make pictures / models with different 2-D and 3-D shapes and talk about their properties (sides, corners, edges, vertices, faces, straight, curved)
- Talk about the different shapes you can see whilst out, e.g. rectangular windows, spherical footballs, cylindrical postboxes.

And finally…

Numberblocks systematically builds up children's understanding of each of the numbers to 20 (and beyond). The fun characters and adventures they have are a great way of encouraging children to have fun with numbers, their order, and how to make different numbers by combining and partitioning different amounts.

- We recommend you watch this at home and interact with your child to discuss the concepts taught!



(available on BBC iplayer)



topmarks.co.uk and busythings.co.uk also have some great EYFS Maths games to practise and consolidate concepts.

Our Workshop Resources









Have fun!