



What do we teach in Reception?

Maths

Statutory Framework for the Early Years Foundation Stage

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. 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. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - 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.

Early Learning Goals – Assessed at the end of the Reception year.

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.

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.

What to look for

- Subitising – fast eyes, “Don’t count, say the amount”
- Counting - including from a larger set
- Composition- How number are made, numbers within numbers
- Visualising – How do you see it? Take a photo in your mind.
- Spatial awareness/ reasoning
- Gesturing
- Mathematical talk - Stem sentences, precise vocabulary
- Questioning

Counting Principles

- One to one principle (One number for each item)
- Stable order principle (Knowing number names in order)
- Cardinal principle (Stopping number – the last number you say tells you how many you have)
- Order irrelevance principle (It doesn't matter which order we count the objects in)
- Abstraction principle (You can count anything, including non-physical (eg sounds) and imaginary things, and the same rules apply)

+ Hierarchical Inclusion + Conservation principle

Good questions

- What do you notice?
- What do wonder?
- What do you know?
- What do think?
- How do you see it?
- Can you imagine?



How can you help at home?

- Involve your child in everyday maths; talk about numbers/ maths around you.
- Play lots of games, including ordinary board games.
- Watch Numberblocks!



Counting Activities and Games



Maximise opportunities for counting...
in a fun way and with a purpose

- Counting steps/ stairs / jumps– forwards and backwards
- Tidying up - How many things can you pick up?
- Laying the table – Fetch 4 spoons etc.
- Count things around us - How many blue cars are in the car park? How many shoes are lined up in the hallway?
- Aural counting – Count as you hear a noise
- Counting games – 'Ten Nice Things'



Counting and Cardinality Activities and Games



Track games

- Board games - e.g. Snakes and Ladders & Frustration
- Home-made track games – inside and outdoors!

Orchard Toys – e.g. Insey Winsey Spider, Spotty Dogs



Counting, Cardinality and Composition Activities and Games

- Bunny Ears
- Box lid games, target games (skittles, bean bags)
- Apps – eg Number Flash (free)
White Rose Minute Maths (free)
Little Digits (£2.99)
- Online games – eg Top Marks
- Subitising videos - YouTube



Comparison

Sorting activities - the child's ability to reason and explain how he/she has sorted objects is the important skill.

Sort anything!

How have you organised your objects? Can you explain how they are different? How are they the same? Who has more? Who has least/ fewest?

- Can you sort the buttons in the sewing basket?
- Can you help sort out the washing in the washing basket?
- Can you organise your toys?



Comparison

Activities and Games

Who has the most? Who has the fewest?
How do you know?

- Sharing sweets/chocolates
- Building with blocks. Can you make a taller tower?
How many bricks do you have?
- Building snakes with play dough and using blocks to measure how long they are.
Which is the longest snake and how do we know?

Use numeral dice, as well as dot dice.



Comparison

Activities and Games

Estimating activities

- How many sweets are in the jar?
- How many apples are in the fruit bowl, or how many do you think will fit in the bowl?
- How many slices of cake are there? etc.



- Build a den using blocks or boxes. How many teddies do you think will fit in the den?