



Nursery Maths Stay and Play

Wednesday 1st March 2023



Aims

To give you an understanding of the Nursery maths curriculum and next steps

To give you an insight into activities that your children take part in at Nursery

To allow you opportunities to explore mathematical activities with your child

To provide you with ideas of how you can incorporate maths at home



Counting

When counting, children need to understand these key principles ...

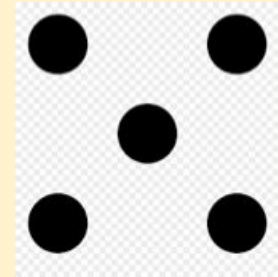
- That we need to say one number for each object counted (touch counting / One-to-one correspondence - match one number name to each item to be counted
- Stable order- say the number names in the correct order
- Cardinality - the last number in the count is the total size of the group. The final number we say is how many altogether. Some children continue to count after they have reached the final object as they don't connect the numbers they are saying to the objects in front of them.
- That we can count objects in any order and the total stays the same.



Recognising amounts – subitising

Another skill is to develop other mental strategies to identify the number of items in a group without counting them individually e.g. 6 dots on a dice: seeing this as two groups of three which we combine to make 6

Initially this should be by using concrete objects such as those shown above but as children progress, allowing them to see groups of dots in different arrangements helps them to mentally 'see' how many objects are there without needing to count. This is a very important skill when children begin to add and subtract. Using dice is a good way to practise this skill before moving onto objects in different arrangements.





Reception Early Learning Goals - Mathematics

Mathematics Number ELG

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 ELG

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.



- Making Maths 'real' for children - giving it familiar contexts with meaningful purposes.
- Putting 'Maths' opportunities in all of the 7 learning areas (cross-curricular links) - inside and outside the classroom!
- Problem Solving Activities & Open-Ended Child Led Investigations.
- Implementing the Maths Mastery Scheme: Depth vs. Breadth in Maths Lessons, e.g. mastery of smaller numbers vs. bigger numbers.
- Using the CPA model to teach key concepts
(C = Concrete P = Pictorial A = Abstract)

Maths in the Nursery...



Maths in the Nursery...



Maths in the Nursery...





How can I help at home?

Count - steps up the stairs, money into a money box etc

- Ask children to say how many without counting (5 or fewer)
- Play games using dice/dominoes and encourage child to say how many spots without counting.
- Ask children to set the table with enough knives, forks and plates for everyone.
- Spot numbers in the environment - on phones, microwaves, clocks, registration plates, doors.
- Ask children to think of their own representations for numbers eg one of them, two hands, three bears, four wheels on a car, five toes, six sides on a dice, seven dwarves, eight legs on an octopus etc
- Deliberately make mistakes. Children need to understand mistakes are normal and everyone makes them eg get mixed up when counting, muddle two numbers when ordering them.
- Watch Numberblocks on Cbeebies. This programme is written by maths specialists to model maths concepts and represents number brilliantly. Also, Numberjacks is excellent for solving problems.
- Hide numbers around the house or garden for children to find.
- Play outdoor maths games like hopscotch and skittles. Even better, let children make up their own games and decide how to score points.
- Read books with maths concepts eg The Very Hungry Caterpillar, One is a snail, Ten is a crab, What's the time, Mr Wolf? The doorbell rang.
- Draw attention to more and less.
- Ask questions such as "How many more?", "How many altogether?", "How many would I have if..."

Can you sort the objects by size?



Try it at home!

Big
large



Medium
sized

Small
Little

Can you sort the socks from your laundry? Who has the biggest, smallest and medium sized socks?



Challenge: order a bag of vegetables by size from smallest to largest.





Tapestry



Please look out for observations about your child's learning.

You can also upload any 'wow' moments or learning at home.