











# Nursery Long Term Plan- Core Knowledge Document

Autumn		
Strand: Mathematics		
Core Taught	Core Provision	
Specific learning from taught sessions, focused on knowledge and skills: Teach, model and scaffold:	Classroom: -Number line/Numicon displayed (Clearly visible during carpet inputs)	
Show an interest in numbers, beginning to explore numbers by using Numicon.	-Adults encouraging, modelling and scaffolding counting throughout all areas of the provisionAdults modelling use of mathematical language frequently	
Listen to and sing songs and rhymes Repetition, Repetition.	throughout provision (count snacks, body parts etc) -Number cards for children to use at their own choosing -Images of shapes, numbers and Numicon.	
Sing – Sing counting songs, such as '10 Green Bottles', '1, 2, Buckle My Shoe' and '1, 2, 3, 4, 5, Once I Caught a Fish Alive'.	Creative Area: -Number activities with Numicon.	
Counting Count whenever you can! Count how many stairs there are, or how many toy crayons or toy cars they have. Don't worry if children remember the answer – model and count to check!	-Colour matching activitiesPattern activities incorporated into area (colour patterns, printing patterns, bead patterns, shape patterns) -Playdough (Can be used to re-create numbers)	
Ask young children to help you sort the cutlery or the laundry – counting as you sort.	Role Play: -Phone and numbers in role play area (E.G- Can you match and dial the number to ring the fire station to let them know about the fire?)	
Try following a recipe together, talking about the numbers in the recipe and counting ingredients: 'We need 2 scoops of flour.	-Sharing equipment in the restaurant. Small World:	
We need 1 cherry for each cake.'	-Sorting activities (matching/sorting animals/people by type,	

 Try our <u>fruit muffin recipe</u> to practice measuring with children!

# **Drawing and forming numbers**

Explore the shapes of numerals

Have fun forming numbers in sand with a stick, on the pavement with chalk or on sheets of paper with finger paints.

Make numbers out of modelling clay. Try holding their finger and forming the number in the air.

- Real life often provides the best opportunities to develop early maths skills like counting and recognising numbers.
- Repetition is key, sing counting songs, such as '10 Green Bottles', '1, 2, Buckle My Shoe' and '1, 2, 3, 4, 5, Once I Caught a Fish Alive'. Singing songs is a good way for children to become familiar with counting.
- Talk about numbers around the classroom and outside.

## Read counting books together

- Read stimulating picture books with stories based around numbers to explore numbers.
- Dinosaur Dig! by Penny Dale This inventive counting story manages to combine diggers, dinosaurs and counting.
- Ten Little Fingers and Ten Little Toes by Mem Fox and Helen Oxenbury – Illustrated beautifully by the illustrator of We're Going on a Bear Hunt, this story is ideal for young children.
- One Ted Falls Out of Bed by Julia Donaldson and Anna Currey – This magical story by the author of The Gruffalo

sorting the correct number of animals into numbered pens, sorting cars: parking in a garage)

## Reading Area:

-Counting/Number books available

#### Outside:

- -Mathematical games that involve counting, patterns, matching numbers and amounts etc (Skittles- counting how many they have knocked down, exploring patterns with the natural resources, ball games- did you score more or less goals than x?)
- -Instruction included in mud kitchen to make different concoctions for the children to follow (E.G- Add 2 cups of mud and 5 flowers. Stir together and then add 1 cup of water.) -Sorting hoops

#### Additional:

- -Visual timetables used daily in class
- -Number formation visuals and practise available
- -Numbers and subitising images included in provision (E.G- On bikes, construction area and scooters in outdoors,
- -Subitising representations.
- -Make a class birthday chart to refer to.

## Playlist: Early maths skills

Short films on counting, place value and more.

Video Help: <a href="https://www.oxfordowl.co.uk/for-home/maths/early-maths-skills/">https://www.oxfordowl.co.uk/for-home/maths/early-maths-skills/</a>

- has a counting theme and rhyming text. It's all about the fun that toys have while children are fast asleep.
- One Mole Digging A Hole by Julia Donaldson and Nick Sharratt – Another counting, rhyming story by children's favourite, Julia Donaldson. From moles digging holes to parrots pulling up carrots, the wacky and wonderful illustrations by Nick Sharratt are sure to make counting fun!

#### Numbers are all around us.

- Point out numbers when you're outside and around the school – on front doors, signs etc.
- Talking about numbers around you early and often will show the children that numbers are part of everyday life.
- Choose a 'Number of the Week' and see how many times you can spot this number, around the school or on their way to school etc.

#### Read together

- Read fantastic books based around numbers, but any book can be used to help children develop early counting.
- Take time to talk about what you can see on each page.
- Count objects on the page and compare the number of objects from page to page.
- Look at the page numbers and say them together.

# Forming numbers

- Get your hands dirty and have fun forming numbers in sand with a stick, on the pavement with chalk or on sheets of paper with finger paints. Make numbers out of modelling clay.
- Form numbers out of small objects such as pieces of pasta or beads.
- Forming the numbers in the air with our fingers. All these activities can help your child to become more familiar with numerals and enjoy themselves in the process!

Spring	
Strand: Mathematics	
Core Taught	Core Provision
Specific learning from taught sessions, focused on knowledge and skills: Teach, model and scaffold:	Classroom: -Number line/Numicon displayed (Clearly visible during carpet inputs)

## Continue to explore numbers.

- Real life often provides the best opportunities to develop early maths skills like counting and recognising numbers.
- These ideas will help your child to explore numbers, giving them a great start to developing early maths skills and concepts.
- Repetition is key, sing counting songs, such as '10 Green Bottles', '1, 2, Buckle My Shoe' and '1, 2, 3, 4, 5, Once I Caught a Fish Alive'. Singing songs is a good way for children to become familiar with counting.

#### Talk about numbers around you

- Numbers are all around us, from calendars to the remote control, the telephone to car registration plates etc. Point out numbers when you're out and about – on front doors, signs, the front of buses and train platforms.
- Talking about numbers around you early and often will show the children that numbers are part of everyday life.
- Talk about birthdays and how old the children are. What is their number of significance?
- Choose a 'Number of the Week' and see how many times you can spot this number, around the house, out in the street or in the supermarket.

## **Read together**

- -Adults encouraging, modelling and scaffolding counting throughout all areas of the provision.
- -Adults modelling use of mathematical language frequently throughout provision (counting chairs, sharing pencils/equipment etc)
- -Number cards for children to use at their own choosing -Images of shapes, numbers and Numicon.

#### Creative Area:

- -Number activities with Numicon.
- -Colour matching activities.
- -Pattern activities incorporated into area (colour patterns, printing patterns, bead patterns, shape patterns)
- -Playdough (Can be used to re-create shapes/numbers etc)

# Role Play:

-Phone and numbers in role play area (E.G- Can you match the numbers to dial the number to ring the fire station to let them know about the fire?)

#### Small World:

-Sorting activities (sorting animals/people by type, sorting the correct number of animals into numbered pens, sorting cars: parking in a garage)

#### Reading Area:

-Counting/Number books available

#### Outside:

-Mathematical games that involve counting, patterns, matching numbers and amounts etc (Skittles- counting how many they have knocked down, exploring patterns with the natural resources, ball games- did you score more or less goals than x?)

- Help children develop early counting and number recognition skills by using books and through songs.
- Take time to talk about what your child can see on each page. Count objects on the page and compare the number of objects from page to page.
- Look at the page numbers and say them together.
- Make every maths session fun, interactive and act out the song, numbers etc.

#### Get your hands dirty

- Help the children to learn the numerals by exploring their shapes.
- Have fun forming numbers in sand with a stick, on the pavement with chalk or on sheets of paper with finger paints.
- Make numbers out of modelling clay.
- Form numbers out of small objects such as pieces of pasta or beads.
- Try holding your child's finger and forming the number in the air.
- All these activities can help your child to become more familiar with numerals and enjoy themselves in the process!

-Instruction included in mud kitchen to make different concoctions for the children to follow (E.G- Add 2 cups of mud and 5 flowers. Stir together and then add 1 cup of water.) -Sorting hoops

#### Additional:

- -Visual timetables used daily in class
- -Number formation visuals and practise available
- -Numbers and subitising images included in provision (E.G- On bikes, construction area and scooters in outdoors,
- -Subitising representations.
- -Count together after taking the register.

Summer		
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Continue to explore numbers.	-Adults encouraging, modelling and scaffolding counting throughout all areas of the provision.	
<ul> <li>Real life often provides the best opportunities to develop early maths skills like counting and recognising numbers.</li> </ul>	-Adults modelling use of mathematical language frequently throughout provision (lots, few, more, less, many etc) -Number cards for children to use at their own choosing	
- These ideas will help your child to explore numbers, giving them a great start to developing early maths skills and concepts.	-Images of shapes, numbers and Numicon.  Creative Area:	
<ul> <li>Repetition is key, sing counting songs, such as '10 Green Bottles', '1, 2, Buckle My Shoe' and '1, 2, 3, 4, 5, Once I Caught a Fish Alive'. Singing songs is a good way for children to become familiar with counting.</li> </ul>	-Number activities with NumiconColour matching activitiesPattern activities incorporated into area (colour patterns, printing patterns, bead patterns, shape patterns) -Playdough (Can be used to re-create shapes)	
- Numbers are all around us, from calendars to the remote control, the telephone to car registration plates etc. Point	Role Play: -Phone and numbers in role play area (E.G- Can you dial the number to ring the fire station to let them know about the fire?)	
out numbers when you're out and about – on front doors, signs, the front of buses and train platforms.	Small World: -Sorting activities (sorting animals/people by type, sorting the correct number of animals into numbered pens, sorting cars:	
<ul> <li>Talking about numbers around you early and often will show the children that numbers are part of everyday life.</li> </ul>	parking in a garage)	

- Talk about birthdays and how old the children are. What is their number of significance?
- Choose a 'Number of the Week' and see how many times you can spot this number, around the house, out in the street or in the supermarket.

# **Read together**

- Help children develop early counting and number recognition skills by using books and through songs.
- Take time to talk about what your child can see on each page. Count objects on the page, and compare the number of objects from page to page.
- Look at the page numbers and say them together.
- Make every maths session fun, interactive and act out the song, numbers etc.

## Get your hands dirty

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- -Subitising representations.
- -Count together after taking the register. Use tens frames for visual representation of the how many-ness/all-togetherness.

- Form numbers out of small objects such as pieces of pasta or beads.
- Try holding your child's finger and forming the number in the air.
- All these activities can help your child to become more familiar with numerals and enjoy themselves in the process!

# Play maths games

**Try these fun games** with your children practise early maths skills and help to build their mathematical confidence. Most children love playing games and it's an easy way to support their learning.

Get help and advice on how to use the activities >



## Match the Shape

Look at the picture and find all the hidden shapes.



# Whose is it?

Help each of the three bears find their things. Match each bear to their objects.



# **Matching Pairs**

Link all the muddled-up shoes to make pairs.



# Jack and the Beanstalk

Drag the pictures to put this story in order. Use the words 1st, 2nd, 3rd, and so on.

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