



Westfield Nursery School Mathematical Development Policy

Vision

At Westfield Nursery School we aim to deliver against our vision: 'Inspired beginnings, outstanding futures'.

Background

Children's mathematical development occurs as they seek patterns, make connections, and recognise relationships through finding out about and working with numbers and exploring shape, space and measure. Under the EYFS Mathematics is a specific area.

Intent

-To support children's understanding of numbers, shape, space, measures and patterns through purposeful, authentic, developmentally appropriate opportunities

Implementation

See 'Understands and uses numbers' and 'Knows and uses numerical patterns' parts of Nursery curriculum.

Early year's practitioners, both inside and outside, should:

- Have a positive attitude to mathematical development in children
- Have a good understanding of the learning outcomes for mathematical development in the EYFS
- Have a good understanding of the sequential steps for the Nursery curriculum
- Have knowledge of current trends relating to mathematical learning in early years
- Be aware that mathematics does not depend on specific mathematical resources but on children having the opportunities to develop mathematical concepts and understanding.
- Ensure that there are a variety of stimulating and appropriate mathematical resources available both indoors and outdoors, many of which may be open ended and flexible in their usage and are on a large and small scale
- Ensure that appropriate resources are easy for children to access and to find
- Ensure that they have a good understanding of how ICT (e.g. ipads and interactive touch tables) can promote children's' mathematical development
- Model mathematical language and mathematical recording
- To have the opportunity to challenge, extend and make sense of their own learning.

Understands and Uses Numbers

Early year's practitioners, both inside and outside, should provide opportunities for children to:

- Use every day experiences to use counting e.g. number of children in the line when transitioning
- Use the resources in the Maths area
- Say number rhymes and sing number songs
- Read stories involving number e.g. 10 in the bed
- Use number names and number language spontaneously

- Subitise (up to three) (know how many without counting)
- Make comparisons, count, 1:1 correspondence, match, sort and to be able to select objects from a group when asked, e.g. I need one more etc.
- Use language of quantities such as more, less
- Understand that a group of objects changes in quantity when something is added or taken away
- Record and make marks to represent numbers using fingers, marks on paper and other mediums such as sand, shaving foam and paint
- Begin to use the vocabulary involved in adding and subtracting
- Begin to identify their own mathematical problems based on interests and fascinations
- Have the opportunity to count and record numbers during message board
- Use of mathematical vocabulary relating to number
- Use props such as number puppets
- Use mathematical games that include dice

Knows and Uses Numerical Patterns

Early year's practitioners, both inside and outside, should provide opportunities for children to:

- Use the resources in the Maths area
- Say rhymes and sing songs
- Read stories involving patterns, shapes or measures
- Explore shape and space in the environment, and to show an interest in playing with shapes and making arrangements with different objects
- Become interested and notice different shapes in their own environment. To use the language of shape, such as side or corner. To begin to use the mathematical names for solid 3D shapes and flat 2D shapes
- Explore and notice different patterns in pictures or the environment
- Use the language of size, and categorise objects according to properties such as size, shape and type
- Use the language of time, including immediate, past and future, e.g. before, later, or soon
- Anticipate and understand specific time-based events, such as nursery routine, e.g. message board, tidy up time, snack time, home time
- Use positional language, such as in front of, on, under, behind, next to
- Order items by length, height, weight and capacity and use the appropriate vocabulary
- Become familiar with the use of everyday language related to money

Roles and Responsibilities

Overall curriculum lead is Mrs Andrews, lead teacher. Class leaders take responsibility for planning maths.

Resources

A mathematical resources cupboard is situated in Butterfly Class story room and has a wide variety of resources to aid mathematical development. All staff should have a good knowledge of the resources on offer. Staff also develop resources. Resources must also be

available in each room and outside area that children can independently access to further their development in the aspects of mathematical development. Resources are rotated regularly to ensure children remain engaged. Children/staff should be encouraged to share in the responsibility of the equipment and have clear expectations with regard to storage, use and care. It is everyone's responsibility to ensure that all resources are kept in good working order, returned complete and are appropriate for the children's stage of development.

Safety

Staff will ensure all resources that are put out are safe and useable for children, staff will also ensure that the outside and inside area is checked during the morning health and safety check.

Interventions

We deliver a games group intervention for children who need additional support.

English as an Additional Language

We welcome children and families for whom English is an Additional Language (EAL) and see multilingualism as an asset and support the parallel use of home languages and English. Children with English as an additional language can access maths in their home language or English.

Equal Opportunities

Practitioners have high expectations of what the children can achieve regardless of gender, ability, race or culture/social backgrounds.

Working with Parents/ Carers

We actively encourage our children and their families to understand Maths by sharing our curriculum and sharing home learning challenges involving Maths.

Assessment, Monitoring and Moderation

Two-year checks are completed for those children starting in our two-year-old class.

Two weeks after settling in week a baseline is completed. Assessments are then completed at the end of each term so the school can monitor progress and target next steps.

The school has a program to monitor and evaluate the work of the school through regular scrutiny of policy, planning, assessment, observations and feedback from staff, parents and carers.

The judgements staff make are moderated with outside agencies to support validation of these assessments.

Impact (Based on exit data and questionnaires from June 2021)

Children make much better than expected progress in maths from initial baselines.

Children in receipt of Early Years Pupil Premium make expected progress.

EAL children make better than expected progress.

Children report they like learning numbers, counting and number games

Conclusion

Implementation of this policy will ensure children reach their potential in the area of Maths.

Policy updated March 2022