**ALLOWAY EARLY YEARS CENTRE**

**EARLY NUMERACY SKILLS**

RATIONALE

*“Numeracy and mathematical thinking encompasses many different elements including recognition of numerical symbols, verbalising numbers and being able to recognise patterns and shapes. It involves many different skills such as understanding numbers, counting, problem solving, measuring, sorting and patterning. However, numeracy is not only about developing these skills. It is also about having the ability to apply these concepts in all areas of life. Therefore numeracy should be embedded throughout the curriculum and the environment and should not simply be seen as an area on its own.”*

(Realising the Ambition, 2020)

*“As a child, I can direct my own play and activities in the way that I choose, and freely access a wide range of experiences and resources suitable for my age and stage, which stimulate my natural curiosity, learning and creativity.” 2.27*

(Health and Social Care Standards, 2018)

*“Mathematics is important in our everyday life, allowing us to make sense of the world around us and to manage our lives. Using mathematics enables us to model real-life situations and make connections and informed predictions. It equips us with the skills we need to interpret and analyse information, simplify and solve problems, assess risk and make informed decisions.”*

 (Education Scotland, 2018)

AIM

* To provide a mathematically rich environment within the nursery and use the resources available.
* To provide a responsive curriculum in mathematics and numeracy which builds on the experiences individual children bring with them to nursery.
* To provide open-ended concrete activities from which allow children to construct their own meaning and develop mathematical activities.
* To closely link mathematical experiences with other areas of the curriculum.
* To challenge and support children’s mathematical development and understanding within contexts and experiences which are meaningful and relevant.
* To support individual children to become aware of their knowledge and celebrate their achievements in numeracy and mathematical development.
* To help children understand the relevance and practical functions of number and maths in real life situations.
* To provide opportunities for children to practice skills and consolidate previous learning.

OBJECTIVES

* Children will have frequent opportunities to observe, investigate and explore numbers, shape, colour, and pattern in the world around them.
* Children will have opportunities to match, sort, group, measure and count a variety of objects and materials.
* Children will have opportunities to name, compare and categorise objects and materials.
* ICT and technology will be used in the development of numeracy.
* Children will become aware of daily time sequences and the language used to describe/ measure time.
* Children will recognise familiar 2D and 3D shapes during play activities.
* Children will use a variety materials and objects to measure and make comparisons.
* Children will be involved in practical learning experiences where they will be encourages to estimate, guess and try to problem solve.
* Children will be able to identify and use numbers up to 10 and beyond.
* Children will be involved in learning opportunities where they will apply and use mathematical processes such as counting, sorting, measuring and use these to help problem solve.
* Staff will regularly observe and track children’s development in numeracy and mathematics.
* Children will have frequent opportunities to sing songs, play games and experience numbers through play and real-life situations.
* Children will develop skills in counting orally and practically with numbers in the correct order.
* Develop skills in 1 to 1 correspondence and count a group of objects correctly.
* Children will begin to develop a knowledge of numbers before and after in a sequence.
* Children will begin to develop the concept of addition and take away through practical activities.
* Children will begin to develop the concepts of more than/ less than.
* Children will have opportunities to record numbers and use numerals in variety of situations.
* Children will begin to correctly use the language of position and movement.
* Children will begin to be able to give simple directions and describe the journey (eg outdoor area, local environment or the journey from home).
* Children will begin to use the language of measurement and talk about the instruments used for measuring during practical activities.
* Children will begin to order objects size, height, weight or capacity.
* Children will understand information in simple graphs and charts.

IMPLEMENTATION

* The mathematical and number activities we provide in the centre must take into consideration the individual children’s previous experience and knowledge.
* Our planned learning experiences should help make it clear that number and maths is part of our everyday life and should make use of familiar items and be based on familiar experiences. The experiences we provide in the centre must take into consideration the interests and enthusiasms of young children.
* Young children are naturally curious, and numeracy and maths should help develop that curiosity and provide opportunities for them to explore and investigate in a variety of situations without feeling there is a right or wrong answer.
* Children require the opportunity to play and through play be given the opportunity to take control of maths and number in the safe context of play. Playing or experimenting with ideas helps to develop confidence and learn when and where to go for help. Staff should plan for a balance between self-chosen or directed learning and adult led activities.
* Children need frequent opportunities to repeat and consolidate learning and skills, staff must be aware of this and plan accordingly.
* Children learn through doing and collaborating with others. They need lots of opportunities to talk about what they are doing, what is happening, what they observe and what they understand. Staff/ child interactions have to be well timed and planned.
* Interactions should always help scaffold children’s learning by asking open questions, challenging thinking and reinforcing children’s learning. Staff have an important role in modelling the use of and demonstrating skills and mathematical knowledge.
* Staff should plan with the children next steps in their learning and development in number and maths through supporting peer and self-assessment, helping children record their learning and sharing their successes with peers and family.
* Mathematical activities should always be practical and meaningful to the child and should be set in relevant and familiar surroundings. Staff should use the centre environment and the surrounding area which is familiar and meaningful to the children.
* Staff will track children’s development in numeracy and mathematics through Developmental Milestones and the BGE tracker.

REVIEW

This policy will be reviewed annually or as required in light of experience or any new national/local initiatives.

Updated Sept 25 – L. Miller