



**Early  
Mathematics  
Policy**

## **MISSION STATEMENT**

*We believe that childhood is a time for play and through play we discover the excitement of learning, the rewards of achievement and we acquire our life skills.*

*Banbridge Nursery School, with its bright colourful, noisy, well-planned, busy environment, encourages the children in the development of skills, attitudes and understanding that will help them to live full satisfying lives and become confident, useful, active members of a diverse, constantly changing society.*

## **INTRODUCTION**

*“Mathematical concepts are important for everyday life and they develop slowly in the young child. Children need opportunities to re-visit activities and to experience mathematical ideas in many different contexts.”*

**Curricular Guidance for Pre-School Education; p.25**

The staff at Banbridge Nursery School seek to extend the mathematical experiences our children have had in their home environment. Through the provision of thoughtfully planned play activities and daily routines we provide opportunities for the further development of mathematical concepts and language.

Early mathematical development will be fostered through all areas of play, both indoors and outdoors. Through their play, children will develop positive attitudes towards mathematics. With the skilled support of staff, they will begin to understand and use mathematical language to talk about mathematical concepts including number, order, space, size, quantity, time, pattern and relationships. In Banbridge Nursery School, our children are encouraged to use the appropriate mathematical language to talk about what they are doing as they play.

Children are given opportunities to sort, match, compare, classify, count and make patterns and sequences and their enjoyment and understanding of early mathematical concepts is further enhanced through stories, songs and games.

### ***Rationale***

Children are immersed in maths rich environments from the beginning of their lives. Maths and its associated concepts are an important aspect of every day life and learning.

At Banbridge Nursery School, we recognise are vital role in enriching our pupils' learning, enjoyment, confidence and competence in early mathematical experiences. We strive to provide our pupils with high quality educational experiences which will give them the opportunities they require to learn and develop appropriate mathematical skills and knowledge.

### **Our Aim...**

*To inspire and enable learners to be confident and competent users of early mathematical skills and concepts.*

### **Objectives...**

- To integrate early mathematics throughout our curriculum and setting to support the acquisition of language and literacy skills; aid physical development and personal, social and emotional development; promote knowledge of the world around us and participation in the arts.
- To identify and teach the skills necessary in order for our pupils to become competent and confident in early mathematics.
- To provide enjoyable maths experiences throughout all our learning areas and activities to help to bridge /link previous learning in mathematics at home, in school and in the world around us.
- To enable and encourage children to identify and investigate the use of mathematics that surrounds them in their everyday lives.
- To enable and encourage all children to autonomously use a variety of equipment and resources to support their independent early mathematical learning.
- To ensure all children have opportunities to develop their early mathematical capabilities through both independent and collaborative play.
- To enable children to confidently use mathematical language in a variety of situations, both real and imaginary.
- To encourage all children to develop a positive attitude to mathematical and number concepts and learning activities.
- To support parents' ability to nurture excellent early mathematical knowledge and skills in their children.
- To encourage staff members to increase their mathematical knowledge and understanding in order to enhance their teaching.
- To support and encourage continuous professional development for all staff members.

## Learning Outcomes

Knowledge & Understanding	Attitudes	Skills
<p><i>Children will begin to...</i></p> <ul style="list-style-type: none"> <li>• Understand and use early mathematical language of number, order, pattern, measure, shape, space and position</li> <li>• Say the numbers, e.g. 1-10</li> <li>• Identify and name some written numbers in the environment</li> <li>• Know the sequence of number</li> <li>• Develop an ability to sequence events</li> <li>• Show an awareness of time, e.g. daily routines</li> <li>• Be aware of the days of the week</li> <li>• Begin to use the names of the days</li> <li>• Begin to use <i>today, yesterday, tomorrow</i></li> <li>• Respond appropriately to mathematical questions</li> <li>• Be aware of shapes in the environment</li> <li>• Know that some shapes tessellate and some do not</li> <li>• Begin to use mathematical names for 2d and then 3d shapes</li> <li>• Be aware of 1-1 correspondence</li> <li>• Know that the answer to a question 'how many?' will be a number</li> <li>• Know and recite number rhymes</li> <li>• Understand the concept of conservation of number</li> </ul>	<p><i>Children will ...</i></p> <ul style="list-style-type: none"> <li>• Develop confidence in the use of early mathematical language</li> <li>• Be motivated to explore mathematical concepts</li> <li>• Be interested in and willing to talk about activities and learning experiences</li> <li>• Join in a discussion with another child and/or an adult about a shared experience</li> <li>• Answer questions about a shared experience in small groups</li> <li>• Willingly attempt to count using number names (not necessarily in the right order)</li> <li>• Demonstrate positive attitudes when faced with new challenges and problems to solve</li> <li>• Enjoy number rhymes, songs and games</li> </ul>	<p><i>Children will...</i></p> <ul style="list-style-type: none"> <li>• Recognise and verbally identify differences and similarities</li> <li>• Match and sort, e.g. object to object; object to picture, picture to picture etc.</li> <li>• Recognise, copy, continue and create simple patterns using a variety of materials in a range of contexts (aural and visual)</li> <li>• Apply 1-1 correspondence when counting sets of objects</li> <li>• Sequence events (visually and orally)</li> <li>• Find objects using prepositional clues</li> <li>• Use 3d blocks and 2d shapes to construct and/or create pictures and patterns</li> <li>• Compare lengths, heights, weights and sizes without measuring</li> <li>• Sequence objects by length, height, capacity, weight</li> <li>• Begin to use non-standard measures to make comparisons</li> <li>• Use a balance accurately</li> <li>• Use increasingly well-developed mathematical language in an appropriate manner to describe observations, experiences and learning</li> <li>• Begin to predict patterns and outcomes</li> <li>• Begin to estimate number of objects in a set</li> <li>• Begin to solve problems both while working as an individual and as part of a team</li> <li>• Use pictures, symbols and numerals to record numbers in play</li> </ul>

## Planning

Effective planning which reflects the levels of development, needs and interests of our children is essential for promoting learning in the early years. In Banbridge Nursery School we have developed and continue to monitor, evaluate and review long, medium and short term plans which incorporate language development. Clear early mathematics learning

outcomes for activities are identified on our medium and short term plans and through meticulous self-evaluation, these are subject to continuous improvement. Teachers will also plan for specific early mathematical development activities during Quiet Room time and through the use of Circle Time.

Progression is planned for and implemented by providing more challenging tasks and using a variety of resources and equipment with increasing levels of skill and complexity.

Opportunities for early mathematical exploration and development are created by the adults and children in all areas of our school, indoors and out, and resources which can be accessed by the children are provided in all areas.

### ***Assessment and Record Keeping***

Assessment of learning is based on day-to-day observations of, and interactions with, children in a range of situations. The children's assessment records will include observations relating to the development of their early mathematical knowledge, understanding and use of mathematical language and skills.

The information gathered informs planning for future learning and skill progression. It is also used to keep parents informed about their child's/children's strengths and areas for development and how each individual can best be supported at home as well as in school. The value we place upon the sharing of this information with parents, reflects our commitment to the development of excellent home/school working partnerships.

### ***Equal Opportunities***

The staff at Banbridge Nursery School are committed to ensuring that every child will have regular and equal access to a broad and balanced early mathematics experience across the whole curriculum.

Children for whom English is as an additional language will receive appropriate support in the acquisition of the skills they will require to progress in their early mathematical learning. Support from external agencies will be sought as deemed appropriate. The school environment will reflect the range of languages and cultures of the families in our school community through, for example, multi-lingual signs, books and pictures and posters.

### ***Provision for Children with SEN***

All children will have opportunities to access early mathematic development according to their needs. Their individual needs will be assessed continuously through observation which will inform target setting for Individual Education Plans for those children who are identified as needing additional support and placed on the SEN register. These plans will be implemented, monitored, evaluated and reviewed on a monthly cycle. Parents of children placed on the SEN register meet with the class teacher and/or SENco at the very outset of this process and through formal monthly meetings are encouraged to become highly involved in the implementation and review of the IEPs.

Support from outside agencies, e.g. advisory teachers from the SELB Language and Communication team and Educational Psychology, will be sought as appropriate.

### ***Health and Safety***

In order to ensure that Banbridge Nursery School provides a safe and stimulating environment in which to explore, discover and learn, staff ensure that equipment and resources are reviewed continuously for health and safety appropriateness.

### ***Parental Involvement***

Banbridge Nursery School is committed to developing effective working partnerships between home and school. Research shows us that our children will achieve more when parents, teachers, Nursery School staff and children all work together using a consistent approach to meet agreed goals.

At Banbridge Nursery School we demonstrate our commitment to developing and continuously improving our links with families through...

- Interactive displays of routines and children's work throughout the school. These will support the children's acquisition of early mathematical language and skills.
- Regular information sheets and newsletters inform parents about topics and activities being explored in school.
- Leaflets detailing expected learning outcomes for children's early mathematical development will be distributed to each family at the start of each new term.
- Parents are invited to help with various trips and visits throughout the school year. These provide extremely rich opportunities for early mathematical development.
- Parents are invited to sign up to provide support as a 'classroom helper' where they will provide support to the teachers and Nursery Assistants in the various learning activities in both the indoor and outdoor classroom.
- Parents are invited to dine with the child on at least one occasion throughout the school year.

- Parent information meetings are offered during the school year and some of these may identify early mathematical development as their focus.
- The children's progress and interest in early mathematical development will be shared with parents formally on three occasions throughout the year and also on an ad hoc basis.

### ***Policy Review***

Implementation of this policy will be monitored by the Principal. This policy will be formally evaluated and reviewed as necessary in the light of any directive from the SELB or the Department of Education.