Bearsden Primary School

NUMERACY AND MATHEMATICS POLICY

Introduction

Mathematics is important in our everyday life, allowing us to make sense of the world around us and to manage our lives. It gives us confidence in dealing with number and in understanding shape, position and movement. It enables us to think abstractly, model real life situations and make generalisations. Mathematics equips us with the skills we need to interpret and analyse information, assess risk and make informed decisions.

 *(C f Ex Mathematics Principles and Practice paper)*

Aims

In Bearsden Primary we aim to :

* Develop a positive attitude to numeracy and maths as an interesting and exciting subject in which all learners gain success and enjoyment.
* Provide a breadth and balance of mathematical activities for all learners.
* Provide experiences and activities that are relevant to everyday life.
* Build confidence and competence in applying mathematical concepts, knowledge, skills and understanding to solve problems, analyse information and make informed decisions.
* Provide differentiation to meet the needs of all learners.
* Ensure progression and continuity at all stages and across areas of transition.
* Raise and maintain levels of achievement and attainment across all learners.

Learning, Teaching and Assessment

The teaching of numeracy and mathematics is planned in line with Curriculum for Excellence experiences and outcomes as organised below.

**Number, money and measure**

* Estimation and rounding
* Number and number processes
* Multiples, factors and primes
* Powers and roots
* Fractions, decimal fractions and percentages
* Money
* Time
* Measurement
* Mathematics – its impact on the world, past, present and future
* Patterns and relationships
* Expressions and equations.

**Shape, position and movement**

* Properties of 2D shapes and 3D objects
* Angle, symmetry and transformation.

**Information handling**

* Data and analysis
* Ideas of chance and uncertainty.

Planning

The experiences and outcomes encourage learning and teaching approaches that challenge and stimulate learners and promote their enjoyment of mathematics. To achieve this, teachers will use a range of approaches, including:

* planned active learning which provides opportunities to observe, explore, investigate, experiment, play, discuss and reflect.
* modelling and scaffolding the development of numeracy and mathematical skills and concepts.
* learning collaboratively and independently.
* opportunities for discussion, communication and explanation of thinking.
* developing mental agility.
* using relevant contexts and experiences, familiar to young people.
* making links across the curriculum to show how mathematical concepts are applied in a wide range of contexts, such as those provided by science and social studies.
* using technology in appropriate and effective ways.
* building on the principles of Assessment is for Learning, ensuring that young people understand the purpose and relevance of what they are learning.
* developing problem-solving capabilities and critical thinking skills.

*(C f Ex Mathematics Principles and Practice paper)*

Please refer to Appendix 1 for the format of the organisation of an Effective Lesson

Teachers use the CfE Progression Framework and Significant Aspects of Learning to inform their termly planning. Within weekly and daily plans, planned learning experiences are clearly stated and sequenced to ensure progression. These will build on prior learning and actively engage children in experiential learning which is relevant to real life. Opportunities for differentiation, cross-curricular learning and focused assessment are also identified. Mental Maths is a key component of Numeracy and Mathematics and should form part of every session. A range of appropriate resources, including technology, should be selected to support and enhance the planned learning experiences (Appendix 2).

Problem Solving

Problem Solving skills are a tool for thinking across learning and should be seen as a life skill which will be developed across curricular areas, including maths. Through problem solving, learners have the opportunity to apply their knowledge and understanding of concepts.

Financial Education

Financial Education should be delivered as part of a cross-curricular experience, helping learners prepares for the financial challenges they will face both now and as they move into adulthood. A Curriculum for Excellence provides opportunities for learners to engage in financial education in creative and innovative ways.

Assessment

Assessment, using the Progression Frameworks for Numeracy and Mathematics, is built in at the planning stage and should be ongoing throughout the teaching and learning process. Assessment is both formative and summative and will be undertaken in a variety of ways and different forms of evidence will be gathered. This evidence will inform future planning, provide information about individuals or groups and provide information for parents. Dialogue should take place between teachers and learners on progress and next steps. The Progression Frameworks will also be used to assess how far children are progressing through Early, First, Second and Third levels of Curriculum for Excellence at key points in the session and at transition points. The Progression Framework will also be used as part of Learning and Teaching Visits and Pupil Discussion Groups (PDGs) in order to help measure pupil progress.

Support for Learning

All learners should have access to a Maths curriculum which is balanced and provides appropriate pace and challenge linked to their own ability. Therefore maths groups may be fluid within any one class. This should also enable learners to progress at the highest level. Provision for learners with additional support needs is the responsibility of the class teacher in collaboration with the Support for Learning Co-ordinator.

Partnership

The success of the learning process will be greatly enhanced through working collaboratively with a range of partners, both at the planning and delivery stages. In addition to parents and pupils, outside agencies from both the voluntary and world of work sectors, will bring additional expertise and knowledge to learning experiences and activities.