



Mossvale Primary School and Nursery Class

Numeracy and Mathematics Policy

'All teachers have responsibility for promoting the development of numeracy. With an increased emphasis upon numeracy for all young people, teachers will need to plan to revisit and consolidate numeracy skills throughout schoolingTo face the challenges of the 21st century, each young person needs to have confidence in using mathematical skills, and Scotland needs both specialist mathematicians and a highly numerate population.'

Building the Curriculum 1

This policy is based on Curriculum for Excellence. As with all of our programmes of study, through our Maths and Numeracy work we fully endorse the four capacities of Curriculum for Excellence, enabling our children to develop as successful learners, confident individuals, effective contributors and responsible citizens.

Vision

In Mossvale Primary School and Nursery Class, our vision is to ensure all pupils have access to high quality learning and teaching in numeracy and mathematics which will equip them with the skills to engage fully with the wider curriculum and give them the skills necessary to pursue diverse interests and careers. Through mathematics, our children will gain the skills required for lifelong learning and skills for work.

Aims

In Mossvale Primary School and Nursery Class we aim to:

- develop a positive attitude to numeracy and maths as an interesting and exciting subject in which all children gain success and enjoyment
- encourage the effective use of numeracy and maths as a tool in a wide range of activities within and out with school and future adult life
- enable children to apply skills and understanding creatively and logically to solve problems within a variety of contexts
- promote progression and continuity at all stages and across areas of transition to ensure a seamless, coherent and relevant numeracy and maths curriculum for all
- incorporate effective use of technology to enhance/reinforce the development of mathematical skills and concepts.
- develop an understanding that successful, independent living requires financial awareness and effective money management
- foster the ability to think clearly, logically and become independent in their learning

Learning and Teaching

Numeracy promotes the development of the number-based skills that are needed regularly by everyone in their lives and is a part of Mathematics.

Mathematics is the study of the properties, relationships and patterns in number and shape, and the application of this knowledge to analyse, interpret, simplify and solve problems.

Numeracy is not only a subset of mathematics but also a fundamental life skill which permeates all areas of learning. It gives increased opportunities within the world of work and provides individuals with the knowledge, concepts and skills required for life-long learning. It is therefore essential to

equip children with these skills to contribute effectively to society, and for teachers to look for opportunities to develop and reinforce numeracy and mathematics skills within their own teaching activities and through contextualised projects.

In Mossvale, effective learning and teaching in Numeracy and Mathematics is planned for using the Experiences and Outcomes of Curriculum for Excellence and a skilful mix of the following approaches :

- provision of adequate pace and challenge in work through differentiated work programmes which meet all learners needs
- use of relevant, real life and enjoyable contexts
- explaining thinking and presenting findings in a variety of ways
- use of effective questioning throughout lessons to elicit understanding, challenge and probe thinking, and assess understanding
- employing collaborative learning approaches to reason logically and think creatively
- promotion of active engagement and time for independent working
- modelling expected outcomes
- provision of opportunities for applying mathematical skills and knowledge within and beyond the classroom, such as 'Class Maths Challenges' and Paisley Grammar P7 Maths Challenge
- making connections between learning, real life and the world of work
- sharing clear learning intentions and success criteria with children

Planning

Our curriculum design reflects the values, principles and purpose of Curriculum for Excellence. From Nursery to Primary 7 teacher's planning, using the Mathematics and Numeracy Experiences and Outcomes, should include details of ability groupings and the activities planned to support pupils' learning and to meet their needs. Teachers should plan activities which take account of the principles of Curriculum for Excellence and allow children to apply their learning in a variety of real life, meaningful contexts.

In Nursery this will be done through medium term plans and individual staff member's daily plans. In school, staff submit their longer term planning 3 times per year, in October, December and April, and plan detailed weekly diaries which link to this longer term planner.

Staff planning for Numeracy and Mathematics embraces the seven principles of Curriculum for Excellence in the following ways:

- Active learning opportunities and daily interactive mental maths sessions are planned to provide **Challenge and Enjoyment**
- Overview grids are used by some and Heinemann Active Maths Trackers by others to track and plan for **Breadth** of learning to ensure all children experience all outcomes and experiences at each level
- Planning is progressive and builds on prior knowledge and experience to ensure **Progression**
- Planning takes account of revisiting topics to provide secure conceptual understanding. Opportunities are provided through contextualised learning to transfer skills learned into different areas of the curriculum to ensure **Depth** of learning.
- Differentiation is provided through choice of resources and organisation structures such as cooperative learning, flexible ability groups depending on the task; and additional input, support and challenge. This helps to ensure **personalisation** of learning. We also provide personalisation and choice of learning by getting all children to set individual learning targets in maths/numeracy every term. These are located in children's personal Learning Journeys and are shared with parents at the start of every term

- Clear links are promoted between maths and numeracy and other subject areas to draw different strands of learning together and provide **Coherence**. This is identified in IDL plans
- Learning in maths and numeracy is linked to real life contexts such as future occupations that require the skills being developed and/or relevant contexts familiar to pupils' experiences. This helps to provide **Relevance**.

Assessment, Recording and Reporting

Assessment in Maths and Numeracy focuses on pupils' progress in developing and applying essential skills within the three main organisers of Number, Money and Measure, Shape, Position and Movement and Information Handling. Teachers use a variety of formative and summative assessments to track pupil progress through the Curriculum for Excellence E/Os and Levels. Information gathered is shared amongst staff at transition meetings between stages and schools, in pupil progress reports and at parent meetings.

Children are given many opportunities to reflect on and talk about their learning. Class teachers place great emphasis on the use of Assessment for Learning strategies in class to help the children achieve learning targets and identify their next steps. This process provides valuable assessment information.

Personalised targets are set in Maths and Numeracy throughout the year in children's Personal Learning Plans. Teachers and children work towards these in class.

The process of assessment involves:

- Teachers gathering evidence of progress as part of day-to-day learning and the use of specific assessments to assess an individual's strengths and needs
- The Use assessments to identify next steps in learning and discuss these with the pupil
- Embedding AifL strategies throughout lessons to assess learning
- Tracking the progress of groups using school tracking records throughout one level
- Achieve a balance of teacher, self and peer assessment

Evidence gathered will include:

- Ongoing evaluations of daily/weekly progress by linking back to learning outcomes set at planning stages. This will inform changes in daily/weekly plans to accommodate changes in pace of learning.
- Ongoing use of formative assessment strategies during lessons to give effective feedback and monitor pupil understanding
- Use of peer/self assessment by pupils
- Use of end of unit Heinemann Active Maths PCMs to assess knowledge
- Exemplification of learning and understanding included on class learning walls and in individual Learning Journeys

Equal Opportunities

In Mossvale, our Maths and Numeracy activities and resources reflect our commitment to equality, diversity and multi-cultural education. We value diversity and the wide range of children we have in the school and the wide range of cultures and languages they bring. We seek support for children whose first language is not English as appropriate and in line with Renfrewshire Council policy. For those facing difficulties accessing the Maths and Numeracy curriculum for other reasons, for example, those who have been absent for significant periods of time, those who are learning at a slower pace than classmates and those who need greater pace and challenge, a programme of additional support is provided by the Depute Headteacher.

