

SEAVIEW PRIMARY SCHOOL



Numeracy and Mathematics Policy

August 2018

'What is it we want for our children?'

In Seaview, we want our children to be treated fairly, to be happy and enjoy learning. We want our pupils to feel valued, confident and included in all aspects of learning and where everyone will achieve success through effort, commitment and resilience.

'What are we going to do to achieve it?'

To achieve this, we will provide our pupils with relevant, meaningful and rich learning opportunities. We will celebrate their achievements and successes, engage with parents and the wider school community and continually enhance our knowledge and skills through career-long learning.

Our shared values are:

- Excellence
- Happiness
- Fairness
- Teamwork

Our shared aims are:

We work together to be the best we can be!

Introduction

This policy was written and revised by members of the Numeracy working group at Seaview Primary School. It has been reviewed by the staff as a whole and is a working document, which reflects the ethos and practice within the school in relation to numeracy and mathematics.

It has been written in line with the requirements of Curriculum for Excellence, Angus Council's Numeracy 3 -18 Strategy Paper and Angus Council's Mathematics for Excellence document.

'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 and revisit and consolidate numeracy skills throughout schooling'. Building the Curriculum 1

Numeracy and Mathematics go hand in hand and children need to be given opportunities to develop their understanding and skills in order to allow them to be numerate in everyday life. They need to understand the number system, apply calculations skills and be able to solve problems in both familiar and unfamiliar situations within all aspects of mathematics.

Aims

At Seaview Primary School we aim to provide our pupils with a Numeracy and Mathematics curriculum which will produce individuals who are: numerate, independent, creative, inquisitive, enquiring and confident. We also aim to provide a stimulating classroom environment in which pupils can develop their mathematical thinking.

Class teachers have access to FSIN books, SHM teaching files, TeeJay textbooks and Interactive Mental Maths resources as well as maths teaching resources which can be found in class cupboards and area cupboards. These resources are to be share and used by staff and pupils within the school and can be found using the record of mathematical resources (Appendix 1).

At Seaview Primary School we believe that children should have high quality learning and teaching experiences in mathematics which will:

- *extend each child's mathematical thinking, building on previous experiences and recognising individual capabilities*
- *provide opportunities to apply mathematical learning and skills in everyday situations and make associations with the world of work*
- *enable children to have a sound grasp of key numeracy knowledge – place value, addition and subtraction, multiplication and division*
- *enable children to become mentally fluent, using resources, strategies and enquiry based questions*

- encourage children to be flexible within their approach and methods of calculation
- develop skills to allow children to use resources and technologies confidently and effectively to assist them in their calculations e.g. 100 square, calculators
- give children opportunities to explain their methods and reasoning, using correct mathematical terms
- increase their confidence and skills in forming judgements as to whether their answers are reasonable and have strategies for checking them
- provide contextual challenges which incorporate the broad range

Organisation and Planning for Learning

Children's learning in numeracy and mathematics will be planned using Curriculum for Excellence Guidelines and Angus Council Unpacked Outcomes. Support for the teaching of numeracy and mathematics will come from First Steps in Number Teacher Books, Angus Council First Steps in Number Guidelines, Scottish Heinemann Teaching File Notes, Peter Patilla Mental Maths Books and Angus Council Interactive Maths Glossary.

Angus Council Mathematics for Excellence document details expectations for all numeracy and mathematics learning and teaching:

1) It is expected that all statements of intended learning for each level will be covered. Some statements may need to be revisited many, many times in the years pupils spend at a particular level, while others will be used less frequently.

2) Whilst all schools should have a flexible framework that ensures each teacher is aware of the learning expected at their particular stage this should not become a rigid programme of study: teachers must plan responsively.

3) Teacher's must be fully aware of pupils' prior knowledge and understanding in order to plan for appropriate progression and differentiation within each area of mathematics.

4) It may be sometimes be helpful to group pupils but this should not become a permanent arrangement. Rather groupings should evolve in response to each pupil's progress and learning needs.

5) There will be a daily mathematics lesson, lasting at least an hour, which includes most of the following features:-

- A warm-up which will usually focus on mental agility and the consolidation of prior learning. For all pupils, daily practice in routine calculations is desirable.
- Learning intentions in child-friendly language.
- Clearly differentiated success criteria linked to learning intentions. Best

practice involves co-creation of success criteria by pupils and the teacher.

- *Direct interactive teaching in which quality questioning is used to promote mathematical thinking, and to access the depth of pupils' understanding.*
- *Whenever possible, this should involve the whole class.*
- *Use of mathematical vocabulary and appropriate language in discussions and explanations by both teacher and learners.*
- *Challenging tasks which promote higher order thinking skills and are accessible to pupils at a range of ability levels. These may include well-structured co-operative learning, the use of concrete representatives (manipulatives, pictures, diagrams), written work (including the selective use of textbooks) and be based on 'real-life' contexts whenever possible.*
- *Problem solving is an integral part of all learning and teaching in maths. It should be evident in almost all lessons.*
- *A plenary which allows children to demonstrate their understanding, share different strategies and access themselves and their peers against the success criteria.*
- *Feedback: Pupils should receive individual information about how they are performing relative to the success criteria, and in discussion/agreement reached about their next steps.*
- *Teacher reflection: What have pupils learned? What should the next lesson be? Are there misconceptions which need to be retained from this lesson?'*

Mathematics For Excellence, Angus Council, 2013, page 4.

Assessment

Assessment is an integral part of teaching and learning at Seaview Primary School and is a continuous process. Information for assessment will be gathered in various ways; by talking to the children, observing their work, marking their work, standardised testing, SHM check-ups (end of unit), TeeJay Topic in a Nutshells and Angus Progress Checks. Children are actively encouraged to participate in self-assessment of their progress in mathematics.

Information from these assessments will be used to: inform future planning, identify strengths and weaknesses, provide individual and group targets and information for teachers and parents.

Parental/Carer Involvement

Parents and carers will be kept informed of children's achievement through reports, parent evenings and use of the Class Dojo App. Maths/Numeracy Home Learning may also be provided through the homework grid or as an independent activity. Its purpose will be to consolidate and extend skills already being developed in the classroom.

Parents and carers also are entitled to:

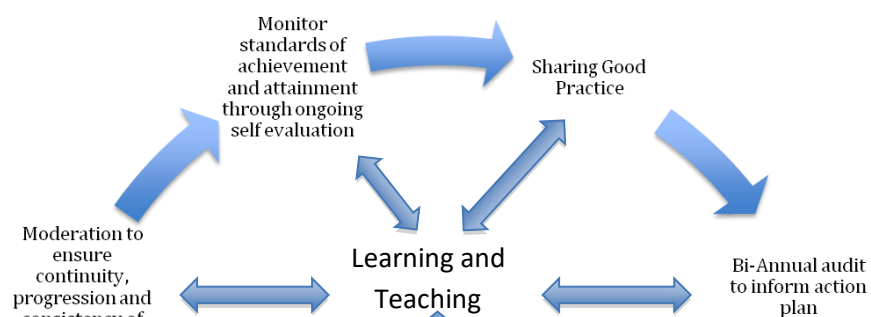
- a clear understanding of the range of numeracy experiences available for young people
- guidance on ways to support young people to develop and apply numerical skills
- relevant and meaningful information about their children's progress and development in numeracy
- advice on how to access support to improve their own numeracy skills, if required.

Useful resources

Angus Council Numeracy and Mathematics Glow Group

<https://glowscotland.sharepoint.com/sites/AngusCouncil/Maths/SitePages/Home.aspx>

Ongoing Planning, Monitoring and Evaluation



Numeracy Learning and Teaching Audit

In your current practice, how well do you.....

Learning and Teaching Approaches	Progress	Impact	Next Steps
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Plan active learning which provides opportunities for young people to observe, explore, investigate, experiment, play, discuss and reflect?			
Provide rich, open ended tasks which develop problem solving capabilities and promote critical thinking?			
Allow young people opportunities to <i>explain</i> their thinking?			
Use meaningful contexts and experiences, familiar to young people?			
Provide opportunities for young people to learn both collaboratively and independently?			
Develop mental agility?			
Make links across the curriculum so that concepts and skills are reinforced and developed further?			
Use technology in appropriate and effective ways, to <i>enhance</i> learning and teaching?			
Take account of, and build on, prior learning?			
Ensure that young people understand the <i>purpose</i> and <i>relevance</i> of what they are learning?			

Share learning intentions and negotiate success criteria with young people?			
Use questioning to engage young people, check knowledge and understanding and scaffold thinking?			
Provide opportunities for young people to engage in self and peer assessment?			
Include a quality plenary session in which young people are given the opportunity to review and share their learning?			
Provide quality feedback to young people, and support them in identifying and planning their next steps?			