

Numeracy Across Learning Policy

“Being numerate is defined as having the confidence and competence in using numbers ... to solve problems, analyse information and make informed decisions based on calculations”

Curriculum for Excellence: Numeracy Across Learning - Principles and Practice 2009

Introduction

City of Edinburgh Council is committed to raising the standards of Numeracy of all its learners. In so doing learners will develop the ability to use Numeracy skills effectively in all areas of the curriculum and have the skills necessary to cope confidently with the demands of further education, employment and general adult life.

This policy is Forrester High Schools response to the City of Edinburgh’s ‘*Numeracy across Learning: Secondary Implementation Plan*’. It is designed, in the first instance, for use by staff and offers advice and guidance on the key roles and responsibilities of staff in the development of Numeracy across Learning.

The policy includes a section on Whole School Initiatives, “*Supporting Numeracy in Forrester High School*”, which will be amended and updated as necessary.

For the purpose of this document the definition of *stakeholders* is parents, carers, teachers and learners

Rationale

The purpose of the ‘*Numeracy across Learning: Secondary Implementation Plan*’ is to promote the vision, values and capacities (*see appendix 1*) of Curriculum for Excellence and to encourage the development of Numeracy skills and competencies through our policy and practice. Much of this policy is extracted from this plan and recognises the following key messages.

- Numeracy and learning are clearly linked because good Numeracy skills support learning, whereas poor Numeracy skills are barriers to learning.
- Good Numeracy skills are a key factor in raising standards across all subjects.
- Learners who are empowered to recognise the links in their learning can build upon them throughout their school experience and beyond.
- All teachers in a school should share the responsibility for developing Numeracy across Learning through collaborative planning.
- High expectation of standards of accuracy and presentation should be consistent in all classrooms.
- Numeracy opens up personal pathways to success and is central to active participation in society and the economy.

Context

Effective learning in Numeracy should enable learners to:

- develop essential Numeracy skills which allow them to participate fully in society.
- understand that successful independent living requires financial awareness including effective money management.
- gather, present and interpret numerical information and use it to draw conclusions.
- assess risk and make reasoned evaluations and informed decisions.
- apply skills and understanding creatively and logically to solve problems, within a variety of contexts.
- use technology effectively to enhance skills and solve more difficult numerical problems.

Aims

This policy aims to:

- encourage all stakeholders to become actively involved in developing positive attitudes towards Numeracy
- support staff in the implementation of Numeracy across Learning in line with Curriculum for Excellence
- raise levels of achievement and attainment in Numeracy for all levels
- ensure that all learners are provided with opportunities to gain, understand and use Numeracy skills, while providing support for children and young people experiencing difficulties or inequalities
- promote progression and continuity across learning
- support staff with the identification of resources and innovative practice.

Roles & Responsibilities

All Teaching Staff

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 schooling.

Building the Curriculum 1

See appendix 2 for Numeracy “organisers”

It is the responsibility of all staff to be aware of prior learning and to consult the transition documentation where appropriate.

Senior Managers

- Undertake audits and action planning.
- Provide clear direction and work to identified priorities.
- Encourage curricular leaders to address Numeracy learning experiences within their courses and programmes of work.
- Identify staff CPD needs.
- Allocate time to continuous professional development.
- Encourage the sharing of good practice across the school.
- Encourage the consistent use of strategies across departments.
- Encourage Curricular Leaders to be consistent in high expectations of standards of Numeracy in their departments including the use of the same terminology when talking about aspects of Numeracy.
- Monitor and evaluate by using a range of approaches, eg sharing classroom experiences and sampling class work.

Numeracy Coordinator

- Support senior managers in planning for implementation.
- Collate information from the audit of Numeracy across Learning and use it to identify next steps.
- Liaise with subject leaders.
- Establish effective lines of communication and ensure there is constructive liaison between all teachers of Numeracy.
- Attend CPD sessions provided by City of Edinburgh Council or ES.
- Lead on Numeracy across Learning policy development, self-evaluation and planning for improvement.
- Work with the SMT and the Numeracy Working Party to plan CPD for whole staff, groups of staff, cluster practitioners.
- To support all staff in the delivery of Numeracy.

Curriculum Leaders

- Recognise where their subject area is best placed to develop certain Numeracy skills
- Take responsibility for planning, developing, monitoring and evaluating Numeracy outcomes and experiences within their courses and programmes of work.
- To support staff in the delivery of Numeracy within their department.
- Encourage staff to teach Numeracy skills in a systematic and consistent way.
- Encourage the sharing of good practice across the department.
- Encourage staff to use the same terminology when talking about aspects of Numeracy.
- Ensure whole school strategies for Numeracy are used consistently.

Practitioners

- Collaboratively plan and develop Numeracy teaching strategies taking into account, gender differences and potential barriers for learners with an additional support need.
- Share resources and examples of good practice across departments.
- Give learners regular opportunities to consolidate their Numeracy skills by using them purposefully in order to learn.
- Ensure the use of the correct terminology, notation and techniques, relating to their own subject, and encourage learners to use these.
- Provide opportunities for learners to see the relevance of numerical concepts and relationships in out of school life and in other learning arenas.
- Facilitate the development of analytical, reasoning and critical thinking skills.
- Use technology to enhance the learners understanding of numerical concepts and ideas.
- Develop learners mental agility.
- Understand when calculators should and should not be used, with clear guidance to learners on sensible use.
- Promote an interest and enthusiasm for Numeracy enabling learners to experience Numeracy in a variety of contexts.
- Undertake additional CPD as required in order to teach the Numeracy outcomes with confidence.
- Support SMT, Numeracy Coordinator and subject leaders in the planning, monitoring and evaluation of Numeracy across Learning.

Parents/Carers

- Support and encourage the development of their child's Numeracy.
- Support the school in the implementation of whole school expectations of this policy in order to maximise the potential of their child and therefore all learners.
- Familiarise themselves with the Numeracy parental booklet used at Forrester High School and refer to it when supporting the learning of their child at home.

Supporting Numeracy in Forrester High School

In order to support Numeracy across Learning several initiatives have been put in place. This is on-going and all new initiatives will be discussed within the Numeracy working party and presented to CLs and staff as appropriate.

- Numeracy Coordinator in post.
- Numeracy across Learning policy.
- The Numeracy working party, discuss new and current initiatives and are available to assist/advise any member of staff with any problems.
- Numeracy across Learning Folder containing, relevant documents, results of the audit etc. situated in whole school section of the computer network. This is up-dated regularly.
- Numeracy across Learning Folder allowing examples of good practise and ideas to be shared across the school.
- Forrester account available on the Delicious website listing web links to interesting projects and examples of good practise in other schools/regions. This is up-dated regularly. www.delicious.com/fhsnumeracy.
All staff can make contributions to this either by adding a link themselves or going through Numeracy Coordinator.
- CPD is regularly organised for ISIS days or CAT afternoons.
- Production of a set of tablemats that can be personalised to meet individual departmental needs.
- Whole Staff questionnaire regarding “How do you Feel?”, “CPD needs” and “Next Steps”
- S1 Questionnaire looking at where pupils have met Numeracy across Learning at Level 3 in line with the audit (taken place in May)
- Production of Numeracy booklet containing methodologies and advice for parents/carers, learners and staff. (In progress).

School Self Evaluation

Evaluation of the implementation of this policy will be done through Quality Assurance procedures such as feedback from classroom observations, Learning Rounds and stakeholder surveys.

Numeracy Capacities (from ES)

Successful Numerate Learners can :

Think innovatively when addressing numerical problems.

Use technology successfully in addressing numerical issues.

Think creatively and independently by presenting work in different ways.

Learn independently by searching, selecting, Processing, synthesising and transforming numerical information from a range of sources.

Learn as part of a group by discussing and clarifying their numerical understanding.

Use numerical skills successfully over a range of curricular areas and in different types of learning situations.

Confident Numerate Individuals can :

Demonstrate self-awareness by reflecting on the relevance of numerical skills across a range of disciplines and using these skills appropriately.

Apply numerical skills confidently to lead an independent lifestyle.

Relate to others by describing solutions, listening to alternative views attentively and responding appropriately.

Use numeracy confidently in a range of real life situations.

Express solutions creatively in a way that engages others.

**To enable
our young people to become....**

Responsible Numerate Citizens can :

Develop knowledge of how numeracy is applied in everyday life.

Use numerical information to make informed decisions.

Interpret numerical data to draw conclusions, assess risk and make reasoned evaluations.

Effective Numerate Contributors can :

Apply skills and understanding to creatively and logically solve problems.

Develop resilience by working on suitably challenging problems, both alone and with others.

Communicate solutions effectively to a wider audience.

Apply critical numerical thinking in new contexts by posing and reflecting on solutions.

Numeracy Organisers

The definition of Numeracy as defined in Curriculum for Excellence is having competence in relation to the following organisers:

- Estimating and rounding
- Number and number processes
- Aspects of fractions, decimal fractions and percentages
- Money
- Time
- Measurement
- Data handling and analysis
- Ideas of chance and uncertainty