

Ballymacward *Primary School*



Mathematics & Numeracy Policy

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Ballymacward Primary School Mathematics and Numeracy Policy

1 Context

‘To ensure that every learner fulfils his or her potential at each stage of his or her development.’

Source: Department of Education 2010

In Ballymacward Primary School we have agreed to adopt the following definition of Numeracy as defined by the Northern Ireland Curriculum (2008):

“Numeracy is the development and application of Mathematics across the curriculum and in real life situations. Numeracy skills should help children to make informed and responsible choices and decisions throughout their lives”.

The school improvement policy document “Every School a Good School” (EsaGs), [DENI 2009] has outlined indicators of effective performance under these four headings:

- Child centred provision
- High quality teaching and learning
- Effective leadership
- A school connected to its local community

Following from ESAGS, a strategy, “Count Read and Succeed”, was developed to support the work of schools in striving to raise standards in literacy and numeracy and to close the achievement gap. This strategy is reflected in our policy.

2 Aims

Our aim is that our pupils will demonstrate their mathematical knowledge, understanding and skills in a variety of ways to communicate, manage information, think critically, solve problems and make decisions. Children will engage in a wide range of purposeful activities which:

- Develop the children’s confidence, pleasure and success in Mathematics
- Involve different modes of learning
- Consolidate and extend their learning
- Include both independent and co-operative learning
- Bring together different areas of mathematics
- Develop mental skills
- Develop the pupils’ logical thinking and their understanding of mathematical relationships by involving the pupils in well planned investigations and process activities.
- Are balanced between those that are short in duration and those that can be developed over an extended period of time

Teachers will enable pupils to develop knowledge, understanding and skills in:

- Processes in Mathematics
- Number

- Measures
- Shape and Space
- Handling Data

Children will be allowed to learn at their individual pace and given time to develop and consolidate their understanding of mathematics. In operating our Mathematics and Numeracy Policy, we will adhere to the statutory legislation and Catholic ethos, and will fulfil our statutory duty under the Northern Ireland Curriculum, by having regard to the Code of Practice for Special Educational Needs, the Special Educational Needs and Disability Order and the Supplement to the Code of Practice.

3 Inclusion & Equal Opportunities

The Mathematics and Numeracy Policy firmly supports the equal opportunities philosophy of the school and all children will have access to the Mathematics and Numeracy Curriculum.

4 Learning & Teaching

Curriculum Planning

Mathematics and Numeracy planning reflects the school's aims and guides the work of individual teachers and staff as a whole. Learning outcomes are clear and therefore guide the day to day work in the classroom. Pupils differing levels of ability are also account. The policy is evaluated regularly in order to assess the children's learning and therefore will facilitate future planning.

Monitoring, Evaluation and Assessment

Monitoring, evaluation and assessment are integral to teaching and learning in Ballymacward Primary school and are the responsibility of all members of staff. The Mathematics and Numeracy Co-ordinator will oversee the progress being made in order to fulfil our policy aims. This will be done by means of the creation, monitoring and evaluation of an Action Plan which will require:

- Setting targets for all pupils in KS1 and KS2 at the beginning of each school year. These will then be reviewed and evaluated at the end of each half term to see if the targets have been achieved.
- Analysing of pupils' Progress in Mathematics (PTM) data (P.3 – P.7) to diagnose strengths and weaknesses, individually, within year and across the primary years, to track performance and to inform how issues will be addressed.
- Analysing of pupils' Progress in Mathematics with informal Assessments in Foundation stage (P1 &2)
- Data will also be used to identify and remediate underachievement.
- Comparison of pupils' work relating to NI Curriculum levels
- Formal Co-ordinator-led staff meetings
- Maintenance of a register of maths equipment
- Review of numeracy action each term
- Displays of numeracy work
- Observations of numeracy activities
- Informal discussion with staff
- Class discussion
- Oral written work
- Project work

- Independent or group activities
- Regular evaluation of evidence to inform future planning.

AfL (see AfL Policy for full details)

Assessment for Learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go next in their learning and how best to get them there. AfL involves the following key actions:

- Clear planning as a result of assessment
- Sharing learning intentions
- Clear success criteria - written or verbal
- Using consistent feedback and marking strategies
- Pupil self-assessment and peer self-assessment
- Using effective questioning
- Target setting

5 Curriculum Implementation

Our Mathematics and Numeracy Curriculum is broad and balanced and in line with the NI Curriculum. Mathematical concepts should be set in meaningful contexts and relate to pupils' everyday life. Mathematics and Numeracy permeates the NI Curriculum in many ways:

- **Whole Curriculum Skills and Capabilities**
 - Children will be given opportunities to engage in active learning contexts across all areas of the curriculum to develop Cross-Curricular Skills and Thinking Skills and Personal Capabilities.
- **Cross-Curricular Skills**
 - Communication
 - Using Mathematics
 - Using Information Technology
- **Thinking Skills and Personal Capabilities:**
 - Strand 1: Managing Information;
 - Strand 2: Thinking, Problem Solving and Decision Making;
 - Strand 3: Being Creative;
 - Strand 4: Working with others; and
 - Strand 5: Self Management.

6 Attainment

Children not making good progress will be provided with additional support through differentiated tasks and interventions, which may include support from the SENCO / Assistant SENCO. Children's progress will be closely monitored regularly through pupils' work in class and via formative and summative tests.

7 Assessment, Recording and Reporting

Assessment is a valuable formative tool and is an integral part of the teaching and learning process. Its main purpose is to facilitate progress in mathematics for every child. It plays a crucial role in improving learning and raising standards. This can be carried out through e.g. Observations in Foundation Stage, written class tests, standardised tests, as well as pupil self and peer assessment. The school employs the use of PTM 7-11 standardised online tests from P3-P7 inclusively. Each year CAT is administered to P3 and P6 year groups.

8 Continuity and Progression

1. The school Mathematics and Numeracy scheme reflects the Northern Ireland Curriculum.
2. Continuity and Progression will be assured within each year group by following a programme of work in line with the statutory requirements of the Northern Ireland Curriculum.
3. The content of the scheme encourages active learning for our pupils and facilitates a structured and sequenced set of experiences for each pupil as they progress through the Key Stages.
4. In order to ensure continuity and progression the school has formulated schemes of work for each year group. This planning is further enhanced by the development of half termly plans for each year group and by teachers' weekly plans.
5. It is important that there is a consistency of mathematical language used throughout the school.

9 Implementation of the Code of Practice for SEN and Differentiation

Staff will provide a differentiated learning environment which takes into account

- Gender
- High and low achievers
- Children with Special Educational Needs

In line with the Code of Practice, the special needs of individual pupils will be catered for through consultation with parents, pupils, SENCO, Mathematics and Numeracy Co-ordinator and possibly outside agencies, such as the Educational Psychologist, ADHD support, the Clinical Medical Officer, EA or CASS Support Staff. Individual Education Plans are created for children who are experiencing difficulties ranging from 1 to 5 in the Special Needs Register.

10 Parents

The school views parents as one of its greatest resources and good relationships between parents and staff are nurtured as much as possible. Parents are encouraged to be involved in their children's learning. They are made to feel welcome to discuss their concerns about their children's progress. Parents are provided with a written report at the end of the school year. Teachers are available for consultations with regard to individual difficulties in Mathematics and Numeracy as they arise. Tuesday afternoons are allocated for parental consultations.

11 Use of ICT

ICT is seen as an integral part of Mathematics and Numeracy and is used to help enhance our pupils' understanding of the concepts. The role of ICT is as follows:

- To consolidate our pupils' learning;
- To further develop our pupils' Numeracy skills;
- To provide our pupils with a variety of stimuli, therefore developing their use of mathematical processes;
- To provide our pupils with a variety of challenging learning situations;
- To promote pupils' enjoyment of Mathematics and Numeracy;
- To provide pupils with opportunities to take part in co-operative activities.

Opportunities are sought in Mathematics and Numeracy to use ICT to develop the children's learning. They should have opportunities, to **Explore** concepts and **Express** their ideas, to **Evaluate** their work, to **Exchange** ideas with others on-line and to **Exhibit** their work digitally.

Children will have access to:

- Interactive White Board (IWB) in each classroom
- iPads
- IZAK 9
- Computers/Laptops
- Beebots and Roamer (robots used in directional work)
- A range of educational software on the C2K system and online, including Sumdog and Cool Maths

12 School Connected to the Local Community

The following indicators from ESaGs will be reflected in the school approach:

- Good relationships are fostered between the school and its parents in the wider community
- The school and its teachers are respected by parents and the local community who in turn support the work of the school.
- Good relationships exist between the school and the education agencies that support it
- The school works closely with other relevant statutory and voluntary agencies, especially the Education Authority, CCMS, Library Services – Ulidia, Health and Social Services and other relevant agencies.

13 Effective Leadership

The following indicators from EsaGs will be reflected in the school's approaches

- An effective school development plan is in place to provide clear and realistic targets for improvement based on a sound vision for the school.
- Governors understand their responsibilities and support the Principal and staff in carrying forward the process of school improvement.

14 Role of the Mathematics and Numeracy Coordinator

The Mathematics and Numeracy Coordinator will be responsible for improving the standards of teaching and learning in numeracy through:

- Leading staff in creating, monitoring and evaluating an Action Plan
- Monitoring pupil progress and target setting
- Management and analysis of data
- Supporting maths teaching through advice, guidance and resources
- Sharing good practice
- Sharing information acquired from courses that may be beneficial to staff
- Providing mathematics and numeracy intervention and support for pupils
- The management, maintenance and storage of resources
- Reviewing the Mathematics and Numeracy Policy and monitoring implementation
- Communicating effectively with the Principal, teachers, other staff, pupils and parents.
- Clear channels of communication are open with relevant outside agencies including DENI, EA, CCMS & CCEA

15 Board of Governors

- An annual report will be given to the Governors on progress in mathematics each year and the standards being achieved by the school.
- Governors will be involved in the Action Planning process. The link governor will meet with the Co-ordinator mid-termly and the co-ordinator will present an aspect of Mathematics and Numeracy at one BoG meeting per term.

16 Review of Policy

- This policy will be reviewed annually. It may be reviewed sooner depending on curriculum developments.