



**WHEATFIELD**

PRIMARY & NURSERY SCHOOL

*Believe ★ Achieve ★ Succeed*

# Mathematics and Numeracy Policy

## Introduction

Our school Numeracy Policy has been under review to reflect the provision in line with the four characteristics of effectiveness as set out in **Every School a Good School** and fulfil the requirements of **Count, Read: Succeed**. It is linked to the School Development Plan and annual numeracy targets. The policy has been updated in consultation with the whole staff in August 2020.

The Numeracy Policy will be reviewed and updated every two years in consultation with staff and presented to the Board of Governors regularly and shared with parents. The Numeracy Policy is in line with the whole school learning and teaching policy.

## What is Numeracy?

### **Count, Read: Succeed**

**Para 1.10 defines Numeracy as:**

**'The ability to apply appropriate mathematical skills and knowledge in familiar and unfamiliar contexts and in a range of settings throughout life, including the workplace. It involves the development of:**

- a. an understanding of key mathematical concepts and their inter-connectedness;**
- b. appropriate reasoning and problem-solving;**
- c. the proficient and appropriate use of methods and procedures (formal and informal, mental, and written); and**
- d. active participation in the exploration of mathematical ideas and models.'**

Our purpose as a school is to ensure our pupils develop the necessary numeracy skills to succeed at school, in life and at work. We aim to provide a firm foundation in these skills during their time in our school. We want our pupils to be competent in using mathematics. *'The N Ireland Curriculum aims to empower young people to achieve their potential and to make informed and responsible decisions throughout their lives.'* (DE 2008)

## General Aims

In Wheatfield Primary School we believe that it is important:

- ❑ To promote each child's self-esteem through praise and encouragement thus developing a positive attitude towards mathematics.
- ❑ To introduce mathematical concepts through a variety of interesting, challenging, and enjoyable practical activities and situations.
- ❑ To enable pupils to gain an understanding of mathematics through a process of enquiry and experiment across the curriculum.
- ❑ To increase the child's mathematical language with the understanding of the concepts involved and to provide opportunities for children to talk about their mathematics.
- ❑ To provide opportunities for mental maths activities, to encourage pupils to apply mathematical concepts and skills with speed and accuracy.
- ❑ To establish an awareness of the use of mathematics in the children's everyday experience beyond the classroom.
- ❑ To develop an appreciation of mathematical pattern, the ability to identify relationships and the skill of recording and interpreting mathematical data.
- ❑ To develop a positive attitude to numeracy and using mathematics as an enjoyable and interesting subject from the Foundation Stage through to the end of Key Stage 2.
- ❑ To provide opportunities for each child to work at his/her own ability level so that each child realises their own, full mathematical potential.
- ❑ To celebrate and appreciate children's work through publication, i.e., for classroom and corridor displays, entrance to competitions etc.

## **Raising Standards**

As stated in the introduction, this Numeracy policy reflects the provision in line with the four characteristics of effectiveness as set out in **Every School a Good School** and the requirements of **Count, Read: Succeed**.

### **1. Child Centred Provision**

We aim to ensure that the child is at the centre of our provision for using mathematics and numeracy. Teachers' planning will provide opportunities for the children to develop and practise their skills in numeracy across the curriculum.

Our long term, medium term and short-term planning will be monitored and evaluated on an ongoing basis to ensure provision and progression of all children.

A school culture of achievement, improvement and ambition exists with clear expectations that all pupils can and will achieve to the best of their ability. This is reflected in our school motto of Believe, Achieve and Succeed.

Through data analysis, target setting and assessment for learning we expect all children to reach their full potential in numeracy. Within class, teachers differentiate learning to accommodate all levels of ability.

Differentiation is necessary for children to progress at their own pace therefore tasks should be planned to match ability levels. There will be differentiation by task: small groups of children working at different levels on a similar task; differentiation by outcome: the whole class engaged in the same work, but with different expectations or levels of support, and differentiation will also be achieved by making use of open-ended activities to encourage children to proceed at their own speed.

All teachers are aware of the need for differentiation within the classroom. They will provide activities suitable for children with a range of abilities. When planning, teachers will endeavour to address the child's needs through simplified or modified tasks.

Effective interventions and support are in place to meet the additional educational and other needs of pupils and to help them overcome barriers to learning. Pupils with SEN are identified through teacher observation and class and standardised testing. Where necessary, teachers will, in consultation with the SENCo, draw up a Personal Learning Plan.

There is a commitment to involve young people in discussions and decisions on school life that directly affect them and to listen to their view.

The children will be given opportunities to use, develop and apply their numeracy skills in all aspects of school life. Through thematic teaching approaches, play/activity-based learning, ICT, creative and expressive studies, within class and through extra-curricular activities, children will become ready for life after Wheatfield Primary School.

## 2. High Quality Teaching and Learning

In Wheatfield Primary School we believe children learn best when learning is interactive, practical, and enjoyable. Teachers will make use of a wide range of teaching methods, balancing whole class, group, and individual activities, to engage children in effective learning in numeracy.

We will ensure that:

- There is a broad and balanced curriculum to promote the areas of Mathematics
- We have an emphasis on numeracy across the curriculum
- Teachers will use adaptable, flexible teaching strategies that respond to the diversity within their classroom
- Assessment and other data are used to effectively inform teaching and learning across the school and in the classroom to promote improvement. The class teacher will monitor for, identify, and address underachievement as soon as it begins to emerge
- Whole school evaluation will be carried out by teachers using objective data and will lead to improvement
- The use of benchmarking data as a measurement to compare the performance of our school against similar schools, dependent on accessibility.
- The use of digital technology is used effectively to promote learning in numeracy.
- 'Assessment for Learning' (AfL) strategies, thinking skills and personal capabilities, play/activity-based learning, creative and expressive studies, and collaborative learning are all used to enhance teaching and learning in numeracy in Wheatfield Primary School.

### The Role of Teachers

Teachers have the leading role in raising standards in numeracy to ensure that every child fulfils her or his potential.

***'Every School a Good School – a policy for school improvement,'*** identifies actions that will be taken to support high-quality teaching and learning.

The five things that class teachers must do to raise standards in numeracy are, in order:

1. provide high-quality teaching for all pupils;
2. address underachievement as soon as it emerges;
3. address continuing underachievement with support from other staff in the school;
4. address continuing underachievement with support from outside the school;
5. meet the needs of pupils after a non-statutory assessment through the SEN framework.

***Every School a Good School – a policy for school improvement, p. 44-45.***

All teachers have a responsibility to familiarise themselves with the Programmes of Study and levels of attainment for Using Mathematics.

All teachers:

- ❖ should plan for clear learning outcomes in which each pupil can develop their numeracy skills as laid down by the Programmes of Study;
- ❖ have a responsibility to follow the agreed numeracy schemes of work and to use the agreed teaching approaches.

The teachers, drawing on their professional expertise, will use a variety of teaching strategies including whole-class teaching, co-operative small group work and individual work, differentiated as appropriate. This varied approach recognises that different children and young people learn in different ways and there is no single approach to teaching that will suit all pupils.

The pace and challenge of the work is planned so that all children have the opportunity to learn effectively, make appropriate progress and achieve success. Pupils should understand the intended learning outcomes and success criteria against which their progress will be assessed. Pupils should have the opportunity to evaluate their own progress.

Each teacher will set high expectations for all pupils to fulfil her or his individual potential. Pupils who have already been identified as having a special educational need should have their individual requirements accommodated through appropriate differentiation, drawing on any support already in place. This personalised approach to learning should enable all pupils to experience and build on success as they develop their numeracy skills to the best of their ability.

Each teacher will work within the whole school approach of this policy and draw on the support available within the school from the numeracy coordinator and numeracy team. The individual class or subject teacher will be responsible for ensuring effective planning and communication with any support staff. Teachers will inform, engage, and work in partnership with parents/carers.

In the teaching of numeracy, the teacher fulfils several roles.

1. **Model** – the teacher's role is the central element in fostering positive attitudes towards numeracy.
2. **Facilitator** – providing a supportive and stimulating environment, organising purposeful activities, and enabling the children to develop their numeracy skills.
3. **Initiator** – providing a variety of resources and opportunities for a wide range of activities to encourage the development of the pupils' numeracy skills.
4. **Monitor** – observing and recording the development of skills in numeracy.
5. **Assessor** – evaluating and assessing the development of skills in numeracy.

All teachers in Wheatfield Primary School accept shared responsibility for promoting Numeracy throughout the school. However, the numeracy coordinator has the responsibility of coordinating numeracy throughout the school. There is a school development plan and a numeracy action plan in place which have been contributed to, agreed, and supported by appropriate planning for numeracy. A numeracy team has identified priority areas for development. The Literacy Coordinator and Numeracy Coordinator maintain a collegiate assessment and evaluative cycle to better inform future targets and provision.

### Teaching Methods and Classroom Organisation

Lessons begin with 5 or 10 minutes of mental maths followed by a main activity. The mental maths sessions aim to emphasise the development and use of effective strategies.

Classroom organisation includes opportunities for pupils to work individually, in pairs, co-operative small groups and as a whole class. The teacher will ensure that everyone can participate fully in a wide range of tasks and will monitor the composition of groups and the roles within them.

Pupils participate in:

- ☐ Mental maths activities
- ☐ Practical activities
- ☐ Recording their work
- ☐ Mathematical discussion
- ☐ Investigational and problem-solving work
- ☐ Consolidation of basic skills and routines

Children are encouraged to find their own ways of recording their work and are given opportunities to discuss their work and explain their thinking.

### Assessment and Evaluation

Assessment in mathematics is an ongoing process achieved mostly by teacher observation based on all classroom activities and supplemented by other sources:

- ☐ Baseline assessment
- ☐ Assessment Tasks
- ☐ GL Mathematics tests **PTM**
- ☐ Assessment tasks and activities highlighted in the New Heinemann schemes
- ☐ End of Topic tests
- ☐ Marking of children's work – specific feedback given to individual pupils as and when necessary.

Assessment sheets, along with samples of work, are used to form a profile of children's attainment. The files also keep parental reports and NFER standardised tests. This information is passed on to other teachers and used as a basis for compiling annual parental reports.

## Data Analysis

Standardised test results are analysed and discussed with the teaching staff. The results are used to:

- ❑ Target groups of children who are not making sufficient progress so that they may receive additional support.
- ❑ Target children or groups of children who are performing above expectations and who may be targeted with enrichment activities.
- ❑ Identify common areas of mathematics where classes may need to focus and where large numbers of children require additional support
- ❑ Inform future planning and classroom grouping/ organisation.

## ADDRESSING UNDERACHIEVEMENT

The class teacher should monitor for, identify, and address underachievement as soon as it begins to emerge by:

- identifying those pupils who are failing to fulfil their potential through classroom observation, assessment of pupils' outcomes and robust tracking of progress; and
- intervening to provide support to address emerging underachievement as soon as possible after a pupil of any age begins to experience difficulties with her or his learning.

Teachers will liaise with the SENCO and learning support teacher to develop educational plans suited to individual needs. They will also liaise with outside agencies when necessary.

It should be noted that low achievement is different from underachievement. Comparisons with CAT4 and PTM are made. Low achievement is where a pupil is achieving to the full extent of her or his ability but is well below average compared to her or his peers.

### Gifted and Talented Children

For gifted and talented children, advice will be sought from outside agencies as appropriate, however, these pupils will be catered for as far as possible within the classroom to ensure that they are given the opportunity to reach their full potential.

## Progression and Continuity

- ❑ Medium term planners are written using the Levels of Progression.
- ❑ Familiarity with the Maths Policy as well as reference to the commercial scheme White Rose Maths ensures continuity and progression.
- ❑ At the end of the school year, teachers record PTM results on Sims and pass on any other relevant assessment results or information to the next class teacher during class handover.



### 3. Effective Leadership

#### **School leaders: Boards of Governors**

It is important that the Board of Governors is involved in, and kept informed of, the life and work of our school. The Board of Governors role includes working with the principal to ensure that our three-year School Development Plan is agreed and coherent and is focused on a manageable number of core priorities, always including numeracy.

The School Development Plan is created in collaboration with all stakeholders and should provide clear and realistic targets for improvement which will be monitored and reviewed.

The School Development Plan will identify the actions and resources (financial, physical, material and human, including the role of professional development and staff development days) to be used in support of the identified priorities, including those relating to numeracy.

The governors should satisfy themselves that the School Development Plan places sufficient emphasis on developing numeracy; that it contains robust and challenging annual targets; and that it identifies how these targets will be achieved.

The annual targets for improvement in numeracy are outlined in the School's Development Plan and are set in full consultation of the staff including the Board of Governors, Principal, Senior Leadership Team, and Numeracy Coordinator.

#### **School Leaders: Principal, Senior Leadership Team and Numeracy Coordinator**

The principal has a vital day-to-day leadership role to play by promoting a culture of achievement and supporting and implementing the work of the Board of Governors. The principal should draw on the existing ICT infrastructure (E.g., C2K, SIMS) to help inform, plan, and manage the learning and teaching taking place in the areas of numeracy. To support pupils' development of numeracy skills the principal, must ensure that:

- ❑ the whole-school approach to the development and promotion of numeracy skills is broad and balanced and promotes progression.
- ❑ all the staff have high expectations of all pupils.
- ❑ the school has a written Numeracy Policy making clear that the development and promotion of numeracy are whole-school priorities.
- ❑ the numeracy policy clarifies all roles and responsibilities to support its effective implementation.
- ❑ there is a culture of accountability for numeracy outcomes at Principal level, Senior Leadership Team level, Curriculum Coordinator level and throughout the school;
- ❑ the School Development Plan has baseline positions, clear outcomes, annual SMART (Specific, Measurable, Attainable, Realistic & Time bound) targets for numeracy, linked to annual action plans devised by the numeracy coordinator;
- ❑ the Board of Governors are aware of targets and informed of achievements by the numeracy coordinator at the end of the academic year.

- ❑ the numeracy curriculum leaders carry out a full review and audit at beginning of each three-year School Development cycle in their respective curriculum areas.
- ❑ every teacher has annually reviewed development objectives, linked to the School Development Plan (particularly, where appropriate, the numeracy targets);
- ❑ teachers undertake robust tracking and monitoring of pupils' work with a particular focus on numeracy, using statutory and other assessment tools alongside their own professional judgement;
- ❑ in conjunction with the numeracy coordinator, there are opportunities for teachers to share and learn from good practice;
- ❑ should ensure there is an integration of special needs provision, with a particular focus on numeracy, at individual pupil level, class level and whole-school level;
- ❑ arrangements, including for pastoral support and special educational needs (SEN), are in place to provide support as early as possible to pupils that need additional help;
- ❑ the school develops effective links with the families and community it serves;

The Principal and Senior Leadership Team should ensure that numeracy is an essential part of school strategic planning by creating links between the School Development Plan, teachers' professional development, including where appropriate Performance Review and Staff Development (PRSD) objectives, individual lesson plans, assessment techniques and data collection. In this way a numeracy "thread" will run through all aspects of the work of the school, ensuring it is viewed as a priority.

It is important that the school Principal, Senior Leadership Team and the numeracy coordinator embed an internal culture of identifying and sharing good practice. Regularly "talking about teaching" and applying lessons learnt from colleagues to help raise standards.

In conjunction with the numeracy coordinator and numeracy team, opportunities should be provided for teachers to share and learn from good practice. This should be facilitated by:

- ❑ the numeracy coordinator observing teachers and providing feedback and support;
- ❑ providing opportunities for teachers to discuss their planners, effective classroom practice or share concerns during directed time, school development sessions/days or during DE School Development Day closures;
- ❑ the numeracy coordinator providing feedback after the monitoring and evaluation of medium- and short-term planning and providing feedback as appropriate;
- ❑ the numeracy coordinator collecting in children's numeracy classwork books and providing opportunities for collegiate book monitoring
- ❑ teachers completing in-service record proformas after attend training and disseminate the good practice at staff development sessions;

- ❑ teachers sharing resources;
- ❑ the use of wall displays to share practice.
- ❑ the numeracy coordinator coordinating the analysis and review of assessment results (PTM, End of Key Stage) with staff throughout the school.

It is important the principal ensures that effective communication takes place within school. To facilitate this:

- ❑ the School Development Plan is shared with the Board of Governors, staff, and parents/carers;
- ❑ the School Development Plan is contributed to by all staff, including the numeracy coordinator.
- ❑ numeracy action plans are shared with staff;
- ❑ numeracy staff development teams are established to ensure effective communication on Numeracy issues;
- ❑ the School Development Plan is reviewed termly by the Senior Leadership Team;
- ❑ the coordinator's file is reviewed by the Principal and the Senior Leadership Team;
- ❑ the schedule of staff meetings includes specific meetings for numeracy and minutes are retained.

#### **4. A School Connected to its Local Community**

In Wheatfield Primary School we believe that links between school, parents/carers and wider community are essential. We believe that as children progress in school parents/carers play a significant role in encouraging their child's education and development. Parents are encouraged to work in partnership with the school, proactively and diligently encouraging pupils' attendance at school and by supporting them with their homework etc.

##### **Links with parents**

Parents are encouraged to be actively involved and interested in their child's education, both at home and at school. To play a full part in the education of their child, it is important for parents to be given regular information on the performance and general well-being of their child. Parents are involved through:

- ❑ Curriculum meetings at the beginning of the school year
- ❑ Information booklets/ news sheets
- ❑ Parent/ Teacher Interviews (two per year)
- ❑ Class Dojo, providing regular home school communication about the child's progress.
- ❑ Staff are advised to contact a parent/care should they be concerned in any way about a child or wish to keep a parent/carer informed about a matter affecting their child.
- ❑ Annual end of year report in June providing information on the child's progress and behaviour.
- ❑ Parents/carers are encouraged to consider volunteering to help in the life of the school.
- ❑ An annual Board of Governors report is made available to parents/carers.
- ❑ Parents/carers are kept informed on a regular basis of events and school news via text message, Class Dojo, notes, school newsletter and the school website.

##### **Links with Other Schools**

- ❑ School links with post primary schools to ensure a smooth transition for our Primary 7 pupils.
- ❑ Clusters for staff development, visits to other primary schools to share and compare effective practice.

##### **Links with Community**

- ❑ Class visits, e.g., Tesco as part of Farm to Fork initiative for Foundation and Key Stage
- ❑ Visits to school by local people during Maths Week
- ❑ Use will be made of the school building, its grounds, and the local environment to promote the effective use of pupils' literacy and numeracy skills.

##### **Links with bodies in the workforce**

- ❑ Visit to Primary 7 from bank officials from the Bank of Ireland
- ❑ Participation in the Moneywise initiative with the Ulster Bank
- ❑ Visit from a past pupil who is now an actuary who came in to talk about her profession.

**Links with external agencies**

Support for the teaching of Numeracy is provided by external agencies including:

- ☐ Belfast Education Authority
- ☐ CCEA
- ☐ C2k NI
- ☐ GL assessment
- ☐ Educational Psychologist