



Garnteg Primary School

Mathematics & Numeracy Policy

Ratified by Garnteg GB.....K Gauntlett.....

Date.....19.12.17.....

Review dateDecember 2019.....

Reviewed.....

Garnteg Primary School
POLICY FOR MATHEMATICS & NUMERACY

RATIONALE

This policy is the formal statement of intent for mathematics. It reflects the essential part that mathematics plays in the education of our pupils. It is important that a positive attitude towards mathematics is encouraged amongst all our pupils in order to foster self-confidence and a sense of achievement. The policy also facilitates how we, as a school, meet the legal requirements of recent Education Acts and National Curriculum Requirements.

PRINCIPLES

The principles of Garnteg Primary School for mathematics are:

- policy and provision are evaluated and reviewed regularly
- resources of time, people and equipment are planned, budgeted for and detailed when appropriate in the SIP.
- the governing body of Garnteg Primary School discharge their statutory responsibility with regard to mathematics
- cross curricular links will be highlighted where appropriate
- planning of mathematics ensures continuity and progression across all year groups and key stages

AIMS

We aim to provide the pupils with a mathematics curriculum which will produce individuals who are literate, creative, independent, inquisitive, enquiring and confident. We also aim to provide a stimulating environment and adequate resources so that pupils can develop their mathematical skills to their full potential.

Our pupils should

- have a sense of the size of a number and where it fits into the number system
- know by heart number facts such as number bonds, multiplication tables, doubles and halves
- use what they know by heart to figure out numbers mentally
- calculate accurately and efficiently, both mentally and in writing and paper, drawing on a range of calculation strategies
- recognise when it is appropriate to use a calculator and be able to do so effectively
- make sense of number problems, including non routine problems, and recognise the operations needed to solve them
- explain their methods and reasoning using correct mathematical terms
- judge whether their answers are reasonable and have strategies for checking them where necessary
- suggest suitable units for measuring and make sensible estimates of measurements
- explain and make predictions from the numbers in graphs, diagrams, charts and tables
- develop spatial awareness and an understanding of the properties of 2d and 3d shapes

PROVISION

Pupils are provided with a variety of opportunities to develop and extend their mathematical skills in and across each phase of education and takes account of all learner styles and strategies to enable all learners to succeed.

Lessons follow the TAPAS format with a mental/oral starter, a main teaching activity and a plenary session. Staff use TAPAS materials to inform their planning using the objectives appropriate to their year group.

The teaching of maths provides:

- paired work
- whole class teaching
- individual work
- Group work

Pupils engage in:

- the development of mental strategies
- written methods
- practical work
- investigational work
- problem solving
- mathematical discussion
- consolidation of basic skills and number facts

Mathematics contributes to many subjects and it is important that children are given opportunities to apply and use Mathematics in real contexts.

It is important that time is found in other subjects for pupils to develop their numeracy skills. Eg there should be regular, carefully planned opportunities for measuring in science and technology, for the consideration of properties of shapes and geometric patterns in technology and art, and for the collection and presentation of data in history and geography.

We endeavour at all times to set work that is challenging, motivating and encourages the pupils to talk about what they have been doing.

BIG MATHS

All Pupils complete weekly Beat That tests (timed addition and multiplication facts). These tests are sent home for parents to see what they scored and practise with them. Pupils also complete CLIC tests. Pupils complete levelled questions reinforcing place value and the four rules of number skills. Pupils use methods from TAPAS to complete these.

LITERACY AND NUMERACY FRAMEWORK (LNF) 2012

At Garnteg Primary School we fully endorse and have integrated the LNF into all our curriculum policies and Schemes of work.

Within all curriculum areas the following skills have been mapped into both the long term and short term planning to produce a comprehensive continuum for pupils learning.

The LNF focuses on the learners' **acquisition** of, and ability to **apply**, the skills and concepts they have learned to complete tasks appropriate for their stage of development. Expectations are given for each school year from Reception to Year 6 in each of the elements and aspects. The LNF is designed to be inclusive of all learners, including those with additional learning needs (ALN). The Routes to literacy and Routes to numeracy components of the LNF describe progression into Foundation Phase for learners with ALN. Extension expectations are also given for those learners with higher-order literacy and/or numeracy skills, such as more able and talented (MAT) learners. The two components of the LNF are divided into the following **strands**. Within **literacy** the strands are:

- oracy across the curriculum
- reading across the curriculum

- writing across the curriculum.

Within **numeracy** the strands are:

- developing numerical reasoning
- using number skills
- using measuring skills
- using data skills.

The teaching of these skills should always be integrated so that each supports the others. Numeracy in the LNF is described as consisting of four strands. However, developing numerical reasoning underpins the three procedural strands of using number skills, using measuring skills and using data skills. It is vital that numeracy is not viewed as four discrete strands which are developed in isolation from each other. Progression through the stages is demonstrated by an ability to develop and demonstrate an increasing competency in literacy and numeracy skills. The expectations are essentially concerned with developing and recognising a learner's ability to select and apply literacy and numeracy skills in ways that are appropriate to each context. The expectations are designed to recognise progression in terms of both underpinning techniques and of the skills of application. Each age-related expectation builds on the previous year's expectation to ensure year-on-year progression.

THE ROLE OF THE MATHEMATICS & NUMERACY TEAM

Take the lead in policy development and help in the production of schemes of work designed to ensure progression and continuity in science and technology throughout the school; support colleagues in their development of detailed work plans, their implementation of the scheme of work and in assessment and record keeping activities, monitor progress in science and technology and advise the head teacher on action needed; take responsibility for the purpose and organisation of central resources for science and technology and stimulating their use; keep up-to-date with developments in science and technology education and disseminate information to colleagues as appropriate.

The responsibility of the Curriculum Team will encompass liaison with other key stages of education, organising appropriate links arranging exchange of information relating to transfer.

REPORTING LNF TO PARENTS

Reporting to parents/carers will be annual, at the end of each academic year. Reporting should be narrative in nature with reports concentrating on elements/aspects that learners have consolidated and those where improvement is needed.

ASSESSMENT

Assessment is regarded as an integral part of teaching and learning and is a continuous process. It is the responsibility of the class teacher to assess all pupils in their class.

In our school we are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and strive to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring progress.

Information for assessment will be gathered in various ways: by talking to the children, observing their work, marking their work, etc. Teachers will use these assessments to plan further work.

Children's progress in Mathematics is tracked three times a year, in December, March and June using Sims Assessment Manager. Staff analyse termly results on Assessment Manager, identifying levels and shortcomings in various groups of learners eg. Gender differences, AEN, FSM/ NON FSM. The findings are reported to the Raising Attainment Group (RAG) on a termly basis and in turn to the governing body. This ensures that children who are not making the expected progress are quickly identified and strategies put in place to support them.

NATIONAL TESTS

All pupils from Year 2 to Year 6 complete 2 National Numeracy tests, Reasoning and Procedural every May. Reports are sent home to parents in the Summer term informing them of their child's attainment. The school uses these results to inform intervention groups for the following academic year.

INTERVENTION GROUPS

Through rigorous assessment and analysis of assessment data, staff are able to identify pupils who are underachieving or under-attaining at an early stage. The school uses Spotlight Maths and Rapid Maths intervention programmes with individual or groups of learners throughout the school to raise attainment.

ROLE OF CLASS TEACHER

- to ensure progression in the acquisition of mathematical skills with due regard to the Foundation Phase and New Curriculum requirements 2008 for mathematics
- to develop and update skills, knowledge and understanding of mathematics
- to identify inset needs in mathematics and take advantage of training opportunities
- to keep appropriate on-going records
- to plan effectively for mathematics (with year group partners), liaising with manager when necessary.
- To inform parents of pupils' progress, achievements and attainment

STANDARDISATION AND MODERATION

The process of moderation is an essential part of the assessment system. This takes place regularly throughout the year and supports and strengthens teacher assessment.

Teachers are involved in the moderation process to ensure agreement on criteria for levels in the following ways;

- With colleagues in school – during staff meetings
- With colleagues from other schools within the cluster
- By attending LEA sessions to ensure our judgments are in line with other schools

School portfolios of moderated work will be kept by the curriculum leader.

PARENTAL INVOLVEMENT

At Garnteg School we encourage parents to be involved by:

- inviting them into school twice yearly to discuss the progress of their child.
- inviting parents into school in the summer term to discuss the yearly report.
- inviting parents to curriculum evenings or circulating information via half termly newsletters when significant changes have been/are made to the mathematics curriculum.
- encouraging parents to help in classrooms.
- holding workshops for parents focusing on areas of mathematics through Family Learning projects.
- Termly mathematical objectives and activities are sent home for parents to help their children with everyday mathematics.

PUPILS WITH ADDITIONAL LEARNING NEEDS / MORE ABLE AND TALLENTED

Children who have been identified as having additional learning needs (ALN) will follow an IEP with specific targets identified by the pupil and class teacher. It is particularly important that activities for children with ALN in mathematics are set in a context which is familiar to the children's experience.

It is also important that MAT pupils are challenged in their mathematical knowledge and application of learned concepts. This does not necessarily mean taking them on to a higher level but giving them a broader range of experiences within a level.

DEVELOPING DIGITAL COMPETENCY

Digital competence is one of 3 cross-curricular responsibilities, alongside literacy and numeracy. It focuses on developing digital skills which can be applied to a wide range of subjects and scenarios which will be integrated into our Numeracy & Mathematics Curriculum.

MATHEMATICS & NUMERACY AND THE FOUR PURPOSES

Mathematics helps children and young people to make sense of the world around them and to manage their lives. It gives them skills they need to interpret and analyse information, solve problems and make informed decisions. Taught well through relevant contexts, mathematics can engage and fascinate children and young people of all interests and abilities. It provides strong support for the development of wider skills, particularly critical thinking and problem solving, planning and organisation, and creativity and innovation. It enables people to communicate ideas in a concise, unambiguous and rigorous way, using numbers and symbols. A high level of numeracy and mathematical competence is important for the prosperity of the country.

REVIEW

The Governing Body reviews this policy every two years. The governors may, however, review the policy earlier than this if the government introduces new regulations or if the Governing Body receives recommendations on how the policy might be improved.

EQUAL OPPORTUNITIES

Garnteg Primary School is committed to equality, including racial equality, for all members of the school community. The school promotes a positive and proactive approach to valuing and respecting diversity, and will not tolerate racial harassment of any kind.

This policy will be reviewed regularly on a two yearly basis by the governing body

Updated: DECEMBER 2017

