



Happy, Together, Learning and Caring.

Cwmffrwdroer Primary School



Numeracy / Maths Policy



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 Cwmffrwdoer 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 Cwmffrwdoer 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 numerate, 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 an agreed format with a mental/oral starter, a main teaching activity and a plenary session. Teaching staff use TAPAS skills to inform their mental/oral starters using the objectives appropriate to their year group. The main teaching activity is planned using the Excellence in teaching Mathematics Framework, where consideration is given to previous and subsequent year groups to ensure sufficient challenge.

All staff use a wide range of TAPAS (and other) resources to support the learning of mathematics. They are also used to provide a visual representation of the skill being developed and give children an 'anchor' to base their understanding of mathematical concepts on.

Within every class there is a clearly defined mathematics area; where children can access the wide range of resources available. Maths displays are interactive and referred to during teaching. Appropriate resources are considered at the planning stage and prepared in advance to teaching. This may include the use of counting sticks, bead bars, Place Value boards, labels, unifix cubes, dienes apparatus, 2D and 3D shapes etc. Challenge tasks are always available in the mathematics area for children to access independently, to further develop or consolidate their knowledge and skills.

Each term, following analysis of test data (including ALFIE and National Test results) a focused area for development is agreed with individual class teachers and Numeracy leaders to ensure subsequent teaching addresses these needs.

The teaching of maths provides:

- paired work
- whole class teaching
- individual work
- focused group work

Pupils engage in:

- the development of mental strategies

- written methods
- practical work
- investigational work
- reasoning and 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. Every half term children are given the opportunity to apply and develop mathematical skills through a numeracy rich, topic led learning task.

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.

LITERACY AND NUMERACY FRAMEWORK (LNF) 2012

At Cwmffrwdroer 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 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.

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 October, February and June using Alfie ICT tests (the results are analysed by all teaching staff and used to inform a focus for subsequent terms planning).

INCERTS is continually updated throughout the year by class teachers. A 'snap shot' of results from INCERTS is reviewed by SLT on a termly basis to identify the level of progress and shortcomings in various groups of learners eg. Gender differences, AEN, LAC, FSM/ NON FSM. A meeting is then arranged with a member of SLT and each class teacher in turn to share the findings and offer support/recommendations to address any anomalies. This ensures that children who are not making the expected progress are quickly identified and strategies put in place to support them.

EAS trackers are used by class teachers on a daily basis to monitor pupils' progress. This allows for fluid movement of groups of pupils, to ensure they are always being challenged at their appropriate level. It also allows the class teacher to plan more effectively; ensuring that resources and activities meet the needs of individual learners.

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 Number Recovery and Catch Up 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 Revised Foundation Phase (2015) and New Programme of Study for Mathematics Key Stages 2-4 (2016).
- 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 Cwmffrwdroer 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 newsletters when significant changes have been/are made to the mathematics curriculum.
- holding workshops for parents focusing on areas of mathematics through Family Learning projects.
- inviting parents of children who are working below expected levels to attend a workshop (led by numeracy team) to share resources and ideas of how they can support their child in mathematics at home. In addition this aims to prevent children from regressing over the summer term.

PUPILS WITH ADDITIONAL LEARNING NEEDS / MORE ABLE AND TALENTED

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.

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

Cwmffrwdor 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: April 2017

Agreed by Governors: