



# Milecastle Primary School

## Mathematics Policy

January 2015



## MILECASTLE PRIMARY SCHOOL

### MATHEMATICS POLICY

#### RATIONALE

Our mathematics policy reflects the principles identified in our whole school aims and the essential part that mathematics plays in the education of our pupils.

All children are encouraged to enjoy mathematics and become enthusiastic mathematicians by developing their skills, knowledge and understanding through practical experiences which have relevance and purpose in everyday situations. It is important that children develop the skills of numeracy to become lifelong learners. They should be able to apply these skills in different situations across the curriculum and in daily living outside school.

#### AIMS

The aims of teaching mathematics at Milecastle Primary are:

- to develop a numerate environment where mathematical risk-taking, creativity and logical thought are encouraged in order to develop independent learners;
- to develop and consolidate basic mathematical skills and become numerically fluent;
- to promote confidence and competence with numbers and the number system;
- to develop the ability to solve problems through decision making and reasoning in a range of contexts;
- to develop a practical understanding of the ways in which information is gathered, presented and interpreted;
- to explore features of shape and space and develop measuring skills in a range of contexts;
- to develop mathematical communication through speaking and listening, practical activities and recording work.

#### ORGANISATION

##### Teaching and Learning Styles

The school uses a variety of learning and teaching styles in mathematics and employs strategies that cater for different types of learners: teacher exposition, use of models and images, use of computer software, use of the outdoor environment, effective

questioning, whole class interaction, children asking and answering questions, explaining their thinking and through pupil demonstration.

A range of suitable learning opportunities are planned and used to cater for different abilities - differentiated group work, children working independently, in pairs, groups and as a whole class. The use of open-ended investigations provides excellent opportunities for differentiated outcomes. Classroom assistants are sometimes used to support identified children.

## **CURRICULUM TIME**

A 1 hour daily maths lesson is taught in KS1 and 2. In the Foundation Stage children are introduced to short daily whole class teaching sessions. Key maths skills are then extended through child initiated activities and further small group sessions which are adult led.

An oral and mental starter is taught twice per week in Year 1 and daily from Year 2.

Two additional independent mental activities will be carried out weekly.

There are also opportunities for cross-curricular links which will provide work in other areas of the curriculum to support and reinforce children's mathematical learning.

## **PLANNING**

The Mathematics Programme of Study (Sept 2015) is the basis for implementing the statutory requirements for maths. The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. Decisions about when to progress should always be based on the security of children's understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently confident with earlier material will consolidate their understanding, including through additional practice, before moving on.

Short term planning is completed weekly by staff who follow an agreed school format.

## **FOUNDATION STAGE**

Mathematics development involves providing children with opportunities to practise and improve their skills in counting numbers, calculating simple addition and subtraction problems, and to describe shapes, spaces and measures.

## **CROSS-CURRICULAR LINKS**

The teaching of mathematics contributes significantly to children's understanding of other curriculum areas. Links are planned and taught appropriately.

## **THE MARKING OF MATHEMATICS WORK**

Children's work is marked according to the school's agreed marking policy. [See also separate mathematics marking codes January 2015].

## **PRESENTATION OF WORK**

Children's work is presented according to the school's agreed presentation policy.

## **RESOURCES**

Mathematical materials, equipment and basic resources are stored in each classroom. The mathematics team should be informed when equipment needs replacing or supplementing. The children are shown how to take care of equipment and resources and progressively encouraged to select materials suitable for the task in which they are engaged.

## **CALCULATORS**

Calculators will not be used as a substitute for good written and mental arithmetic. They will therefore only be introduced near the end of KS2 to support pupils' conceptual understanding and exploration of more complex number problems if written and mental arithmetic are secure.

## **HOMEWORK**

Children from years 1 to 6 have access at home to the 'MyMaths' website where they can practice and consolidate mathematical skills already taught in school. In addition to this, teachers set homework tasks.

## **ASSESSMENT, RECORDING AND REPORTING**

Assessment takes place in line with the school's agreed assessment policy.

Assessment is regarded as an integral part of learning and teaching and is a continuous process. Teachers assess children's work continuously using APP assessment grids. Levels for each child are recorded termly onto the PTS. Each term pupil progress reviews are held with the senior leadership team where attainment and progress across the year groups and vulnerable groups are discussed and identified. Assessments are used to assess progress against school and national targets. National tests are used for Y2 and Y6 annually. A summary of each child's attainment and progress is reported to parents following statutory guidance either through parental discussion or end of year reports. Information is also passed onto the next teacher. Teachers will set class targets based on each year groups non-negotiables. These will be tested regularly and new targets will then be set.

## **MONITORING AND EVALUATION**

Teaching staff monitor their pupils through observation, discussion, teacher assessment, marking work and testing.

The teaching of mathematics is monitored through:

- scrutiny of work
- lesson observations
- scrutiny of planning
- discussion during staff meetings and INSET
- tracking children's progress on the P.T.S.

The headteacher and mathematics curriculum team are responsible for monitoring progress in mathematics.

## **INCLUSION**

All children have equal access to the mathematics curriculum. Our school strives to meet the needs of pupils with special educational needs, with disabilities, those who are gifted and talented and those learning English as an additional language.

Further guidance can be found in the school's Inclusion Policy.

## **HEALTH AND SAFETY**

Children are made aware of their responsibility regarding safe and sensible use of equipment. All equipment used is of a suitable nature e.g. no glass jars for capacity work. Any equipment such as compasses are stored away safely. A risk assessment is carried out prior to children participating in a mathematical activity outside the classroom.

## **GOVERNING BODY**

The mathematics curriculum team will encourage positive links with the Numeracy governor to keep the governing body informed of all major issues related to mathematics in the school. Co-ordinators will deliver a presentation to governors when necessary to inform them of developments and progress within mathematics at Milecastle.

## **INFORMING PARENTS**

In the autumn term at parents evening all parents are given a calculation booklet with explanations of calculation methods used in each year group and a copy of each year group's non negotiable targets (end of year key objectives which children are expected to achieve). In addition a presentation for parents of Reception children is carried out.

POLICY IMPLEMENTED: JANUARY 2015

POLICY REVIEWED: