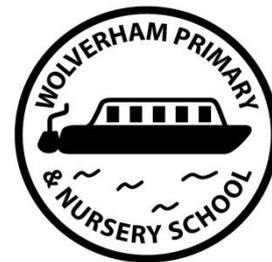


# Wolverham Primary School



## Mathematics Policy

### Quality of the Curriculum

#### 1.1 Introduction

Mathematics teaches children how to make sense of the world around them through developing their ability to calculate, reason and solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. At Wolverham Primary and Nursery School, we believe the mathematics curriculum should not only provide breadth and balance but be relevant and differentiated. It should be flexible, motivating all pupils, thus encouraging success at all levels.

#### 1.2 Aims and Objectives

The national curriculum for mathematics aims to ensure that all pupils:

Become **fluent** in the fundamentals of mathematics, including the varied and regular practice of increasingly complex problems over time.

**Reason mathematically** by following a line of enquiry, understanding relationships and generalisations, and developing an argument, justification or proof using mathematical language.

Can **solve problems** by applying their mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Our objectives in the teaching of mathematics are:

- to promote enjoyment of learning through practical activity, exploration and discussion;
- to develop confidence and competence with numbers and the number system through rapid recall;
- to develop their conceptual understanding in order 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 and presented;
- to help children understand the importance of mathematics in everyday life.

### Teaching and Learning

#### 1.1 Planning the Curriculum

The school uses a variety of teaching and learning styles in mathematics lessons. Our principal aim is to develop children's knowledge, skills and understanding in mathematics. At Wolverham, we do this through a daily lesson, where we adapt our teaching styles to suit the needs of the individual child. During these lessons, we encourage children to ask as well as answer mathematical questions so developing speaking and listening skills as progress is made. They have the opportunity to use a wide range of resources, such as number lines, number squares, digit cards and small apparatus to support their work. ICT is used in mathematics lessons to support teaching and enhance learning. Wherever possible, we encourage the children to apply their learning to everyday situations.

In all classes children have a wide range of mathematical abilities. We recognise this fact and provide suitable learning opportunities by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies – in some lessons through differentiated group work, and in other lessons by organising the children to work in pairs on open ended problems or games. We use teaching assistants to support children, and to ensure that work is matched to the needs of individuals. Display is used to support children in their learning as well as celebrating children's achievements.

Mathematics is a core subject in the National Curriculum, and we use Age and Stage Bands for Early Year's Outcomes for Mathematics in Foundation Stage, and the New Mathematics Programmes of Study (statutory from September 2014) to guide planning, teaching and assessment in Key Stages 1 and 2.

The units to be taught yearly/termly are outlined on our Connected Curriculum overview. The school's Calculation Policy (created in October 2014) has been created to provide continuity throughout the school with all four operations, which in turn will facilitate measured progress for children in school.

Weekly plans are completed by the class teacher using an agreed school format. These include

- specific learning objectives for both mental starter and the main focus of the lesson
- the expected outcomes for each lesson which are recorded in our 'Can I ....?' format
- details of how the lessons are to be taught, including group/individual activity and whether teacher assistant or teacher led

### **The Foundation Stage**

The EYFS is used to provide mathematical learning opportunities throughout our Foundation Stage. We give all the children ample opportunity to develop their problem solving skills, understanding of number, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practice and talk confidently about mathematics.

### **The Connected Curriculum**

In 2010 we introduced a creative and connected curriculum whereby half termly subjects are grouped together in a thematic curriculum.

Although mathematics will be taught as a stand-alone subject, there will be opportunities for meaningful and valuable links to be made throughout our connected curriculum, for example, through data handling in science, measuring in design or food technology etc., so highlighting the importance of mathematics in everyday life.

### **1.2 Assessment and Recording**

At Wolverham, we use short term assessments to help us adjust our daily plans. These short term assessments are closely matched to the teaching objectives. We make termly formal assessments to measure progress against the key objectives, and to help us plan the next unit of work. Class teachers set differentiated unit targets. The traffic light system (green for achieved, amber for needs reconsolidation, red for not met) is used to record whole class progress against the objectives for each year group. We make long term assessments towards the end of the school year, and we use these to assess progress against school and national targets. We can then set targets for the next school year and make a summary of each child's progress before discussing it with parents. We pass this information on to the next teacher at the end of the year, so that s/he can plan for the new school year. We make the long term assessments with the help of end of year tests and teacher assessments. We use the national tests for children in Year 2 and Year 6, plus the progress tests for children at the end of each half term in Years 3, 4 and 5.

### **1.3 Special Educational Needs**

At Wolverham Primary and Nursery School each class has children with a wide range of mathematical ability. Children with special needs are encouraged to develop at their own individual level. Teachers differentiate activities to suit individual needs; they use a wide range of teaching strategies and take into account pupil's different learning styles.

Children with Special Educational Needs receive additional intervention with a teaching assistant, in small groups, to support their learning. Mathematics targets are incorporated onto their Individual Educational Plan (IEP), monitored closely and updated regularly.

Children identified as Gifted or Talented will also receive additional intervention either with a teaching assistant or within the classroom setting. Again, mathematics targets are included in their IEP, monitored closely and updated regularly.

All targets and IEP's are discussed with pupils and parents/carers.

### **1.4 Health and Safety**

Resources and equipment are checked regularly and prior to use to ensure they are in good working condition. Any that are not will be discarded.

## **1.5 Resources**

At Wolverham Primary and Nursery School we have a wide range of mathematical resources. Each classroom has their own 'key' resources eg dice, 100 squares, text books etc.

# **Achievement and Standards**

## **1.1 Monitoring and Evaluation**

The monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the mathematics subject leader.

The subject leader has specially-allocated, regular management time in order to review evidence of the children's work and undertake lesson observations of mathematics teaching across the school. The subject leader will use the monitoring cycle to ensure that the subject is monitored and evaluated systematically. This also includes meeting with the mathematics Governor and sharing information with the Curriculum Committee.

## **1.2 Reporting to Parents**

Children's progress in mathematics is shared during the two annual parent's evenings and also in the end of year written report.

# **Leadership and Management**

## **1.1 Role of the Subject Leader**

The role of the mathematics subject leader (and support leaders) is undertaken in line with the school policy. They will

- monitor standards of work and quality of teaching
- support colleagues in teaching of mathematics
- ensure s/he is informed about current developments in the subject.
- provide a strategic lead and direction for the subject in the school
- organise resources to support the school mathematics policy
- co-ordinate purchasing, organisation and distribution of resources
- arrange in-service support
- liaise with outside agencies, other schools and colleges

## **1.2 Role of the Governing Body**

The subject leader meets annually with the Governor linked to Mathematics and give an overview of what has been taught and also what plans are in place to develop the subject. Examples of work, action plans and planning are shared to ensure the relevant governor has a clear overview of the subject within our school. A written report will be submitted to the Curriculum Committee.

## **1.3 Professional Development**

Subject leaders attend twilights and feed information back during Professional Development Meetings. New ideas and resources are shared with staff as are examples of good practice within the school.

This policy was written by: Vicki Hughes December 2015

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