

## Mathematics Policy

### Aims and Objectives

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their every day lives. We want every child to fulfil their potential. In Mathematics, this means 'Helping each pupil achieve the highest educational standards they possibly can' (Taken from Every Child Matters).

### The Aims of Mathematics are:

- to raise standards in Mathematics by using the Primary Framework for teaching Mathematics
- to develop skills which enable children to use the seven strands in a range of contexts
- to develop skills in mental calculation through teaching a range of strategies and promoting the learning of facts
- to promote confidence with number and the number system
- to develop the ability to solve problems through decision making and reasoning
- to promote enthusiasm and enjoyment for learning through practical activities, exploration and discussion
- to understand where Mathematics fits in to real life

### Teaching and Learning

Our principle aim is to develop and add value to every child's knowledge, skills and understanding in Mathematics. We do this through the use of a variety of teaching and learning styles. Daily lessons have a high proportion of whole-class and differentiated group teaching, where teachers plan to challenge and increase the ability of the children. This is achieved through planned use of Classroom Assistants, organised ability groups and the use of appropriate resources to support their work.

In addition to the daily Mathematics lesson, there will be three short intensive maths sessions to encourage children to improve their knowledge of facts and figures. This increases their pace in completing calculations for

both mental and written work, as well as deepening their understanding of Mathematics.

### Delivery of Aims and Objectives

In order to ensure the aims and objectives of Mathematics are achieved then:

#### The Headteacher will:

- set high expectations and monitor teaching and progress in CPD
- monitor pupil progress and set targets for levels of achievement
- encourage a whole-school approach, keeping parents, governors all staff well informed
- support the co-ordinator and individual teachers
- review the Mathematics section of the School Improvement Plan (SIP)

#### The Governor's will:

- be informed through the leadership of the Headteacher, Mathematics co-ordinator updates and reports from the Mathematics Governor
- support the staff in implementing the Mathematics policy and other related policies
- monitor and review progress of the Mathematics section of the SIP

#### The Co-ordinator will:

- lead by example showing an understanding of, and enthusiasm for, the teaching and learning of Mathematics
- offer support to teachers and classroom assistants in planning, teaching and assessment
- work alongside the Headteacher to monitor pupil progress and levels of achievement
- in consultation with the Headteacher, write the Mathematical section of the SIP
- identify needs for, plan and deliver INSET

#### The Teachers will:

- teach daily Mathematics lessons
- share the learning objective and daily assessment with pupils
- use a range of appropriate teaching styles
- maintain good pace and use effective questioning

- use and promote accurate Mathematics vocabulary
- engage children in challenging differentiated activities using a range of resources, including ICT
- plan according to the schools Medium Term Plans
- complete differentiated short-term planning using the Primary Framework and a range of lesson resources
- track back, where appropriate, and use Wave 3 interventions/methods/non negotiables to address gaps or misconceptions in learning of individuals/groups
- give homework according to the school Homework Policy
- keep mathematical documentation for assessment purposes

The SENCO will:

- support the Mathematics co-ordinator, teachers and classroom assistants in meeting the needs of pupils with Individual Education Plans (IEPs) and encourage inclusion where appropriate
- use appropriate objectives from the Primary Framework when preparing IEPs

The Classroom Assistants will:

- be included in Mathematical training where appropriate
- have a clear understanding of their role in each part of the lesson
- have access to planning, learning objectives and key vocabulary for lessons
- use the Primary Framework to track back where necessary

The Parents will:

- be encouraged to develop positive attitudes to Mathematics and actively support their children with homework
- be well informed of their children's progress through parent's evenings and annual reports

The Children will:

- be encouraged to enjoy Mathematics
- know exactly what is expected of them on a daily basis
- work at a pace during Intensive Maths sessions
- know their learning objectives and regularly self assess
- be aware of their own targets

- use the short date for all Mathematical work
- use a ruler to draw lines
- correct work by re-writing it, not erasing or writing over it
- be aware of the importance of neatness and presentation
- use resources safely, with care and increasing accuracy
- relate Mathematics to every day life

### Mathematics Curriculum Planning

Mathematics is a core subject in the National Curriculum and we use the Primary Framework as the basis for implementing the statutory requirements of the Programme of Study.

Teachers plan according to the detailed objectives set out in the Primary Framework. An overview of the term maps out when the seven strands are to be taught, as well as any links with other subjects. These plans are kept and reviewed by the Management Team and Mathematics Co-ordinator. Each Unit's Medium Term Plans are kept in their Scheme of Work folder.

Short term planning is carried out on a weekly basis; listing specific learning objectives for each lesson/group and give details of how the lessons are to be taught. They are based on the three part lesson of mental/oral starter, main teaching activity and plenary. Each lesson is assessed where teachers record progress according to the learning objective. It is encouraged that plans may be changed from day to day because of the assessment completed. Teachers do not have to complete a full weeks planning in advance but ought to ensure at least two days are pre-planned.

The Medium and short term plans are handed in to the Deputy Headteacher at the end of each term for filing.

### The Foundation Stage

We teach Problem Solving, Reasoning and Numeracy as part of the Early Years Foundation Stage (EYFS) Curriculum. Children are supported in developing their understanding in this area in a broad range of contexts in which they can explore, enjoy, learn, practise and talk about their developing understanding. Objectives for this area are taken from the EYFS document, the Early Learning Goals and the Primary Framework.

### Children with Special Needs

It is part of the *School Curriculum Policy* to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the needs of children with learning difficulties. Work in Mathematics takes into account the targets set for individual children in their IEPs. This also includes pupils who are gifted so that they are given opportunities to challenge their ability (*see Gifted and Talented Policy*).

### Assessment and Recording

Short-term assessments inform our daily plans and are linked to learning objectives. The teachers assessment of a lesson answers whether children have grasped the main teaching point or not, as well as informing future planning.

Pupils are regularly involved with assessment of their termly targets, attached prominently to Maths Books and the use of traffic light system. KS2 Mental Tests are completed on a weekly basis throughout the year.

Individual ongoing assessment is recorded in the APP file which contains levelled objectives that teachers highlight when achieved. This is often cross-referenced to work, but is not always necessary.

In addition, the school uses NFER, QCA and SATs tests to track progress over a year. The Maths Co-ordinator will monitor these results to highlight individuals and progression made. Test results are added onto the pupil database for target setting purposes.

### Resources

There is a range of resources to support the teaching of Mathematics across the school. KS1 and KS2 classrooms have appropriate small apparatus, rulers, cards, number lines etc. All other Mathematics equipment is kept centrally and is allocated by the Resource Manager. Teachers' books are kept in classrooms or in the staff section in Acorn Library/Study Centre. A range of software is available to support work in Mathematics using ICT.

### Linking Mathematics to other Curriculum Subjects

Mathematics is taught as a stand alone subject and is timetabled explicitly as this. However, links may be made with a range of other subjects to

support the Maths as well as the other subject. This may include baking in Maths when weighing and measuring, or drawing graphs to support a study of vehicles in Geography. The expectations and presentation of work should remain the same, whether it is Mathematics or another curriculum area.

### School Improvement

Aspects of what is to be developed in Mathematics are outlined in the ***School Improvement Plan*** each year. This is created by consultation with Headteacher and Maths Co-ordinator, then shared to staff. Over the year, the Co-ordinator will keep up to date with these developments. The implementation of each area of activity will be reviewed at the end of each year.

### Home/School links

Parents are updated annually in reports and at parents evenings. In addition, we aim to 'engage and help parents in actively supporting their children's learning and development' (taken from Every Child Matters). This is achieved through regular homework in KS2 and any appropriate Impact Homework in KS1.

Policy Reviewed September 2012

Policy to be reviewed again by September 2013

B Clarke