

# Grove Wood Primary School

## MATHEMATICS

### Appendix to the Grove Wood Teaching and Learning Policy



#### **Introduction**

This policy is underpinned by the school motto of 'achieving and celebrating success for all' and our school core values of Strive, Positivity, Achieve, Respect and Kindness.

It should be read in conjunction with the following school policies:

- Calculation Policy
- Teaching and Learning Policy
- Curriculum Policy
- Assessment Policy
- Effective Feedback Policy
- Special Needs Policy
- Equal Opportunities Policy

#### **Rationale**

At Grove Wood Primary School mathematics is recognised as a key area of the curriculum as it plays an important role in people's lives. It is used in everyday activities such as keeping time, playing games and buying and selling. Mathematics has been one of the decisive factors in shaping the modern world and continues to grow and find new uses in Science, Technology, Business and social life. Through teaching mathematics we equip children to participate in a rapidly-changing world. Mathematics should be an experience from which pupils gain pleasure and enjoyment, a challenge and a sense of achievement. It is a powerful means of communication and a way of viewing and making sense of the real world.

#### **Aims**

At Grove Wood Primary School, we follow the National Curriculum 2014 for our programme of study. Therefore, our primary aims for our Mathematics curriculum are in line with the aims of the National Curriculum. We aim for our learners to:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately;
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

In addition, we aim to:

- to help pupils to understand the nature and purpose of mathematics in a variety of relevant contexts;
- to help pupils acquire skills in mathematical thinking with a supporting network of concepts, facts and techniques;
- to enable pupils to develop confidence in using and applying mathematics and learn to enjoy its challenges within wider contexts;
- to enable each pupil to develop within their capabilities the mathematical skills and understanding required in later life.
- to enable pupils to express themselves using the language of maths with assurance.

#### **Organisation**

All classes have a daily mathematics lesson delivering the National Curriculum 2014. In Key Stage One, children remain in their class groups and in Key Stage Two the children are taught in ability groups across each year group. The organisation of the ability groups in Key Stage

Two is bespoke to the needs of the year group and organised to promote the best possible outcomes for the children. Additionally in Key Stage Two and at the discretion of the teachers, children may have a further Guided Maths session. This session is a further Maths session and will last up to 30 minutes. The session is bespoke to the needs of the learners and provides additional support and extension for learners.

Practitioners are free to deliver the objectives of the National Curriculum 2014 as they see fit to meet the needs of their learners and ensure the highest standards are met. In addition to this, the school has a variety of resources to draw upon which teachers may use if appropriate.

In addition to the New National Curriculum 2014, the school follows a programme focusing on open-ended understanding and application problems for children in Key Stages 1 and 2. In the Autumn term, the focus is on **Finding All Possibilities**; in the Spring term the focus is on **Talk it, Solve it** and in the Summer term the focus is **We can do it**. All of these programmes are available on the school server.

### **Planning**

The new National Curriculum 2014 is used as the basis for long term planning. Medium term planning is produced termly, providing an overview for the term. Short term planning is produced weekly and is amended by class teachers to reflect the learning of the children.

The School subscribes to the Hamilton Trust Website which has weekly planning which can be used as a source of information for teachers and adapted as they see fit. It is intended as a support for teaching ideas and materials and it is expected that teachers will adapt any planning to meet the needs of their own class.

### **Inclusion**

We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by:

- setting common tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty often but not exclusively named 'hard,' 'harder,' 'hardest,' and 'expert' (not all children complete all tasks);
- grouping children by ability in the room and setting different tasks for each ability group;
- being flexible with ability groupings to ensure that the needs of the learner are central to groupings and tasks;
- providing resources of different complexity that are matched to the ability of the child;
- using classroom assistants to support the work of individual children or groups of children;
- providing booster groups and using intervention programmes to support children with gaps in their mathematic understanding;
- providing a suitable level of challenge for children of the highest ability and those on the gifted and talented register;
- setting homework tasks to consolidate learning in school.

### **Action Plans, Budget and Bids**

The subject leader will write an action plan annually linking priorities to identified priorities from the School Development Plan. From this, the Mathematics co-ordinator will write a subject bid. This will outline where and how the budget will be spent. The budget will be used to purchase resources and training in accordance with the school development plan.

### **Assessment, recording and reporting**

Recording children's achievements in mathematics is essential to ensuring continued progress. Short term assessments are an informal part of every lesson. These are recorded on the weekly planning format and allow teachers to assess against lesson objectives. Teacher assessments are carried out in the Autumn term and levels are recorded on target tracker. The mid-year assessment week provides an excellent opportunity to formally assess progress using previous years QCA papers. These levels are also recorded using target tracker. At the end of each academic year, pupils in years 2 and 6 sit National Curriculum mathematics papers. Pupils in years 3, 4 and 5 complete assessments in line with the whole school assessment calendar. A final teacher assessment is also made. For pupils in years R and 1 a

teacher assessment is also made. End of year levels are reported to parents and recorded on target tracker.

In line with the changes to the New Curriculum, the school is developing assessment without levels. This is being trialled alongside the Old National Curriculum Levels throughout 2014-15 and will be fully implemented in September 2015.

### **Resources**

Both key stages have well stocked resource areas and teachers have access to a range of textbooks and software to assist them in the planning and delivery of mathematics lessons.

### **Cross Curricular Mathematics**

We recognise that mathematics is embedded implicitly and explicitly in other subjects and strive to ensure cross-curricular links, including with our computing curriculum. Bespoke to the needs of the learners, cross-curricular links may be delivered and recorded in a variety of ways.

### **Training**

Staff training (including ISA training) takes place during staff meetings and inset training days and is focused on areas in need of further development. Staff training will be provided by the subject leaders or outside speakers. Teachers also have access to mathematics courses run by the local authority.

### **Monitoring, evaluation and review**

Monitoring opportunities will be given for discussions with staff and children, sampling of books and planning and observations of staff, to ensure mathematics teaching is being consistently delivered throughout the school.

Reports will be discussed at staff meetings and with individual members of staff following observations.

The subject leader will report annually to the governors in the subject leader report. In addition, the headteacher reports annually to governors about the subject and the standards of attainment and achievement met.

This policy is reviewed as part of the review cycle identified in the school development plan.