



This policy outlines the purpose, nature and management of the mathematics taught at Bishop Wood School. The implementation of this policy is the responsibility of all teaching staff.

1 Aims

1.1 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 relationships and patterns in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics.

1.2 The aims of teaching mathematics are:

- to promote enjoyment of learning through practical activity, exploration and discussion;
- 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 and presented;
- to explore features of shape and space, and develop measuring skills in a range of contexts;
- to understand the importance of mathematics in everyday life;
- to increase aesthetic awareness and fascination for mathematics;
- to develop a positive attitude towards mathematics by developing pupils' confidence in using mathematical equipment and vocabulary and through developing their mental strategies.

2 Teaching and learning

2.1 The school uses a variety of teaching and learning styles in mathematics. The principal aim is to develop children's knowledge, skills and understanding. During the daily lessons the children are encouraged to ask as well as answer mathematical questions. 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 for modelling ideas and methods wherever possible. The pupils are encouraged to apply their learning to everyday situations.

2.2 The use and application of mathematics to investigate and solve problems is integrated with work on number, measurement, algebra, statistics and geometry to ensure that the requirements of the current mathematics curriculum are met.

2.3 Delivery

- Mathematics will be taught for an hour each day in each year group.
- Pupil's work will be differentiated.
- Methods taught will be in line with the school's calculations policy.
- The presentation of children's work will be in line with the school's presentation policy.
- Mathematics marking will be kept up to date to inform assessment and planning. It will be in line with the school's marking policy.
- Each year group will be set weekly mathematics homework.
- Teachers will take every opportunity to ask open-ended questions.
- Teachers will probe and challenge answers and where appropriate ask for alternative strategies or explanations.
- Mathematic displays will be at the front of the classroom and will be resourced to help the children's learning.

3 Mathematics curriculum planning

- 3.1** Mathematics is a core subject of the Primary Curriculum 2014 and the Maths Curriculum 2014 is used as the basis for implementing the statutory requirements of the programme of study for mathematics.
- 3.2** Curriculum planning in mathematics involves three phases: long-term, medium-term and short-term.
- 3.3** The medium-term mathematics plans give details of the main teaching objectives for each term. They ensure an appropriate balance and distribution of work across each term. These plans are kept and reviewed by the subject leader.
- 3.4** The class teacher completes the weekly plans for the teaching of mathematics. These weekly plans list the specific learning objectives and expected outcomes for each lesson, and give details of how the lessons are to be taught. The class teacher keeps these individual plans; the class teacher and subject leader discuss them on an informal basis.

4 Contribution of mathematics to teaching in other curriculum areas

4.1 English

The teaching of mathematics contributes significantly to children's understanding of English at Bishop Wood School by actively promoting the skills of reading, writing, speaking and listening. For example, in mathematics lessons, children are expected to read and interpret problems in order to identify the mathematics involved. They are also improving their command of English when they explain and present their work to others during lessons. In English lessons, too, maths can contribute: younger children enjoy stories and rhyme that rely on counting and sequencing, while older children encounter mathematical vocabulary, graphs and charts when reading non-fiction texts.

4.2 Personal, Social and Health Education (PSHE) and Citizenship

Mathematics contributes to the teaching of PSHE and Citizenship. The work that children do outside their normal lessons encourages independent study and helps them to become increasingly responsible for their own learning. The planned activities that children do within the classroom encourage them to work

together and respect each other's views. Older children are presented with real-life situations in their mathematics work on the spending of money.

4.3 Spiritual, moral, social and cultural development

The teaching of mathematics supports the social development of the children through the way they are expected to work with each other in lessons. They are grouped so that they work together, and are given the chance to discuss their ideas and results. The study of famous mathematicians around the world contributes to the cultural development of the pupils.

5 Mathematics and ICT

5.1 Information and communication technology enhances the teaching of mathematics significantly because ICT is particularly useful for mathematical tasks. It also offers ways of impacting on learning which are not possible with conventional methods. Teachers can use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. Children use ICT to produce graphs and tables when explaining their results, or when creating repeating patterns, such as tessellations. When working on control, children can use both standard and non-standard measures for distance and angle. They can also use simulations to identify patterns and relationships.

6 Mathematics and inclusion

6.1 At Bishop Wood School mathematics is taught to all pupils, whatever their ability and individual needs. Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. In maths, the pupils are provided with learning opportunities that enable all children to make good progress. Teachers strive to meet the needs of those pupils with special educational needs, pupils with disabilities, pupils with special gifts and talents and those learning English as an additional language, and all reasonable steps are taken to achieve this. For further details see separate policies: Special Educational Needs; Disability Non-Discrimination; Gifted and Talented; English as an Additional Language (EAL).

6.2 In Years 5 and 6, pupils are set across the year group. Work will be differentiated to make it accessible to all children. Year 3 and Year 4 remain unset.

6.3 When progress falls significantly outside the expected range, the child may have special educational needs. The school's assessment processes consider a range of factors – classroom organisation, teaching materials, teaching style, and differentiation – so that additional or different action can be taken to enable the child to learn more effectively. Assessment against the National Curriculum 2014 allows consideration of each child's attainment and progress against expected levels. This ensures that the teaching is matched to the child's needs.

6.4 All pupils have access to a full range of activities involved in learning mathematics. Where children are to participate in activities outside the classroom (a 'maths trail', for example) a risk assessment is carried out prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

7 Assessment for learning

- 7.1** Teachers will assess pupils' work in mathematics on a regular basis. This assessment is used to inform planning. Pupils are also encouraged to assess their own work in order to help them become proactive independent learners.
- 7.2** Termly assessments are used to measure pupils' progress against key statements. Pupils' progress is recorded on a distribution sheet format.
- 7.3** Summative assessments are made termly and used to assess yearly progress against school and national targets. Teacher assessment, as well as national and optional tests are used in these summative assessments.

8 Resources

- 8.1** All classrooms have a range of equipment and manipulatives which the pupils are encouraged to use to support their learning. A range of software is available to support work with the computers.

9 Monitoring and review

- 9.1** Monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the subject leader. The work of the subject leader also involves supporting colleagues in their teaching, being informed about current developments in the subject, and providing a strategic lead and direction for mathematics in the school. The subject leader gives the head teacher an annual summary in which s/he evaluates strengths and weaknesses in the subject, and indicates areas for further improvement. The head teacher allocates regular management time to the subject leader so that s/he can review samples of children's work and undertake lesson observations of mathematics teaching across the school. A named member of the school's governing body liaises with the subject leader about the teaching and learning of mathematics within the school, the areas for development and end of Year 6 data.
- 9.2** This policy will be reviewed in accordance with the Governors' Policy Review Schedule.