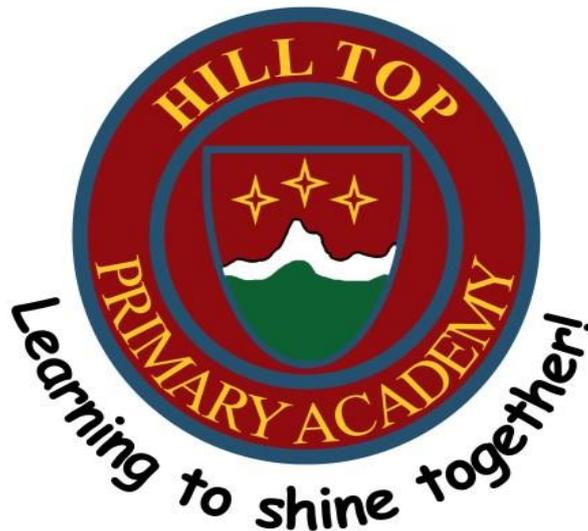


Hill Top Primary Academy

A Member of Leodis Academies Trust

Mathematics Subject Policy



<i>Plan administration</i>	
<i>Version Number</i>	<i>2</i>
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<i>Date of next review</i>	<i>September 2019</i>
<i>Person responsible for review</i>	<i>Maths Coordinator</i>
<i>Signed and dated Principal</i>	
<i>Signed and dated and in Govs minutes Chair of Governors</i>	

Hill Top Primary Academy is an inclusive school; we believe that every child has a right to a broad, balanced and effective education regardless of race, gender, age, sexuality or special need. Please refer to our Equal Opportunities Policy for further details of this.

1 Aims and objectives

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 Our objectives in the teaching of mathematics are:

- to promote enjoyment of learning through practical activity, exploration and discussion;
- to promote fluency, confidence and competence with numbers and the number system;
- to develop the ability to solve problems through decision-making and applying maths skills in a range of contexts;
- to reason mathematically by following a line of enquiry, conjecturing relationships and making generalisations, using mathematical vocabulary carefully;
- 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 help children understand the importance of mathematics in everyday life.

2 Teaching and learning style

2.1 It is essential to have continuity and progression throughout the mathematics curriculum so that it provides structure, purpose and meaning.

- The school follows the National Curriculum, which is supported by using published and teacher made materials. This provides flexibility, which allows teachers to be creative and develop professionally whilst at the same time, supports the less confident or newly qualified teachers.
- A balance between whole class, group and individual approaches in the teaching of mathematics is used throughout the school.
- When working with the whole class we use an interactive approach wherever possible.
- A balance of practical, investigative, oral and written activities is used throughout the school.
- Children are given opportunities for investigative work and problem solving, at all ages and levels, to develop their ability to apply their mathematical skills to real life situations
- A cross-curricular approach is used to provide first-hand experience wherever appropriate.
- The children develop their mathematical language through opportunities to question and explain their activities and in discussion with the teacher, support staff and each other.
- As a school, we have common high expectations and standards regarding both presentation and methodology in order to provide consistency and continuity. Children's recordings are encouraged to be
 - neat and of a high standard
 - presented in a clear and organised way
 - presented in a variety of forms e.g. diagrammatically, graphically, pictorially, as a model or in written form.
- When recording their calculations, investigations and other mathematical work
 - children are encouraged to formulate their own ways of recording their results
 - teachers are modelling the children's verbal explanations
 - teachers are demonstrating standard methods

2.2 The school has a Calculation Policy which can be found on the school's website.

3 Mathematics curriculum planning

3.1 Long term

The National Curriculum provides the long term planning for mathematics taught in the school.

3.2 Medium term

The school has adapted medium term planning to meet the requirements of the National Curriculum which is followed by all year groups from years 1 to 6.

3.3 Short term

It is the class teacher who completes the weekly plan for the teaching of mathematics. It outlines the learning objectives (taken from medium term planning), activities and assessment opportunities for the unit of work. This is regularly monitored by the mathematics co-ordinator or Principal. The class teacher keeps these individual plans and annotates and evaluates them, and the class teacher and subject leader often discuss them on an informal basis.

3.4 We plan the activities in mathematics so that they build on the children's prior learning. While we give children of all abilities the opportunity to develop their skills, knowledge and understanding, we also plan progression into the scheme of work, so that there is an increasing challenge for the children as they move up through the school.

4 The Early Years Foundation Stage

4.1 We teach mathematics in our Early Years Foundation Stage. We relate the mathematical aspects of the children's work to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children aged three to five. We give all the children ample opportunity to develop their understanding of number, measurement, pattern, shape and space, through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

5 Contribution of mathematics to teaching in other curriculum areas

5.1 English

The teaching of mathematics contributes significantly to children's understanding of English in our school by actively promoting the skills of reading, writing, speaking and listening. For example, in mathematics lessons, we expect children 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 plenary sessions. 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.

5.2 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. The study of famous mathematicians around the world contributes to the cultural development of our children.

6 Mathematics and ICT

6.1 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 also use iPads in maths to practice skills and present mathematical information in all areas of maths.

7 Mathematics, and inclusion

- 7.1 At our school, we teach mathematics to all children, whatever their ability and individual needs. Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our mathematics teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents and those learning English as an additional language, and we take all reasonable steps to achieve this. For further details, see separate policies: Special Educational Needs and Disabilities; Disability Non-discrimination; More Able, Gifted and Talented Children; English as an Additional Language (EAL).
- 7.2 When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, differentiation – so that we can take some additional or different action to enable the child to learn more effectively. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels. This ensures that our teaching is matched to the child's needs.
- 7.3 If a child has special educational needs or requires significant levels of support or intervention an Individual Education Plan (IEP) may be written. This should include, as appropriate, specific targets relating to mathematics.
- 7.4 We enable all pupils to have access to the full range of activities involved in learning mathematics. Where children are to participate in activities outside the classroom (a 'maths trail', for example), we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

8 Assessment for learning

Teachers will assess children's work in mathematics from three aspects (long-term, medium-term and short-term).

8.1 Short term

Children's classwork is assessed frequently through

- regular marking
- analysing children's errors
- questioning
- discussion
- use of plenaries

Short term planning is evaluated and annotated regularly in light of these assessments.

8.2 Medium Term

Currently, all pupils in each class are assessed half termly. Staff use a variety of tools to do this. This could be information gained from the daily and weekly teaching of mathematics, informal pre and post learning assessments as well as formal tests. These assessments are used to inform teacher's judgements and are recorded on our assessment system Educater. This provides a chance to analyse the results of individuals and groups of children. Moderation and pupil progress meetings are held to review the accuracy of these judgements.

8.3 Long Term

Long-term assessments are made against National Curriculum levels in July. The following tests are also carried out annually:

-SATs at the end of Y2 and Y6

9 Organisation and time

9.1 Early Years Foundation Stage

Mathematics is covered throughout Nursery and Reception. Each day there is a focussed maths input for between 10-15 minutes followed by a range of activities for the children to carry out. Opportunities for children to apply their maths skills are also offered through the areas of continuous provision across the Early Years classes.

9.2 Key Stage 1&2

Across years 1-6 there is a daily mathematics lesson of between 45 and 60 minutes for all children. Differentiation is used to meet the needs of all children. Intervention groups are taught separately as well as joining the rest of the class using a variety of intervention strategies.

10 Resources

10.1 All classrooms have a number line and a wide range of appropriate small apparatus to meet the needs of the children. A large range of software is available to support work with the class on the interactive whiteboard and on all iPads in school. All children from R to Year 6 have access to MyMaths at school and home.

11 Monitoring and review

11.1 The coordination and planning of the mathematics curriculum are the responsibility of the subject leader, who also:

- supports colleagues in their teaching, by keeping informed about current developments in mathematics, and by providing a strategic lead and direction for this subject;
- gives the Principal an annual summary report in which s/he evaluates the strengths and weaknesses in mathematics, and indicates areas for further improvement; this feeds into the School Development Plan.
- uses specially allocated regular management time to review evidence of the children's work, and to observe mathematics lessons across the school.

11.2 This policy will be reviewed at least every 2 years.

Signed:

Iain Tolmie

Date: 13th September 2017