

Maths Policy



Introduction

The teaching of mathematics has changed along with the ever changing needs of society. Children, in preparation for adult life, now need many and varied skills. Numeracy is a key life skill. Through our work at school in mathematics, children will gain the knowledge and understanding to use and apply the skills needed to confidently work within the world today,

Aims

At Hollymount School, we aim to develop:

- A positive and enthusiastic approach towards acquiring mathematical skills
- Mathematical competence, supported by a sound understanding of key concepts
- The importance of using mathematical language as a means of communicating ideas and concepts
- Independence, confidence and logical thinking, with a systematic approach to problem-solving
- An awareness of the uses of mathematics beyond the classroom, able to apply skills in a changing world.

In addition, the 2014 National Curriculum for mathematics, which is statutory for all maintained schools, aims to ensure that all pupils:

- *become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems*
- ***reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justifications or proof using mathematical language*
- *can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of smaller steps and persevering in seeking solutions.*

Objectives

1. Develop a fundamental understanding of the objectives from the National Curriculum 2014.
2. Develop an ability to use and apply mathematical skills to everyday situations.
3. Understand and relate mathematical skills with the effective use of ICT.

Planning

Weekly plans are written by the class teacher reflecting the requirements of the Key Objectives for the year group, which may be adapted to reflect class, group and individual needs. Weekly plans also specify the deployment of support staff and the criteria on which successful learning will be assessed. Key vocabulary for each lesson is also recorded and shared with the children. Plans are monitored once a term by the Maths Subject Leader to ensure progression of skills across the school.

Planning support

Teachers use various resources to augment their planning. These include Abacus, which provides a well-structured programme of teaching and learning for Years 1 to 6, as well as supplementing these plans with activities from NRich, NCETM mastery materials and Merton Maths themes. Teachers also refer to the Hollymount Calculation policy to ensure the correct mental and written methods are taught in each year group.

Teaching in the Foundation Stage is based on Early Years Outcomes, with the aim for children at the end of Reception to be working at Early Learning Goal or beyond.

Provision

Each class teacher will provide a daily mathematics lesson. This may vary in length but will usually last for about 45 minutes in Key Stage 1 and up to 60 minutes in Key Stage 2. Some groups of children will be given additional provision according to need. Children in the Early Years have opportunities throughout the day to explore mathematical principles.

In lessons, children will be given opportunities for:

- Practical activities and mathematical games
- Selecting and choosing their own manipulatives to support learning
- Problem solving and reasoning
- Individual, group and whole class discussions and activities
- Open and closed tasks
- A range of methods of calculating e.g. mental, pencil and paper and using a calculator
- Using ICT as a mathematical tool e.g. creating graphs and spreadsheets
- Accessing the class working wall, which is updated regularly to reflect current work

Inclusion

Teachers across the school advocate the use of 'chilli challenges', where children select the difficulty of their independent work. This self-differentiation encourages the children to take responsibility for own learning and become more confident with their Maths skills.

Able pupils

Able pupils will be taught with their own class and stretched through differentiated group work and encouragement to work at a greater depth. When working with the whole class, teachers will direct some questions towards the more able to maintain their involvement. In Years 4-6, children are streamed by

ability for Maths lessons so able children can be challenged further, and lower children can be supported fully. Mastery materials are also used in Upper Key Stage 2 to further challenge the children. More able children in years 5 and 6 are invited to represent Hollymount by taking part in local and national Maths competitions.

Special Educational Needs

Pupils with SEN will be included in the daily mathematics lesson, through appropriate differentiation and support, informed by the targets in their Special Education Need Support Plans.

EAL

Support for children with English as an additional language will be given in the daily mathematics lesson in a variety of ways e.g. repeating instructions, emphasizing key words, using picture cues, counting and chanting, use of vocabulary translations where available and appropriate etc.

Assessment, Recording and Reporting.

Formative assessment is an informal part of every lesson to check understanding and give the teacher information about progress and achievement, sometimes requiring an adjustment to the next day’s plan. A variety of AFL strategies are used.

At the end of each term, work in Maths books is assessed against the curriculum objectives using the HertsforLearning assessment grids specific to each year group, and sometimes written tests are used to help inform teacher’s judgements.

Parents’ evenings are held in the autumn and spring terms. Written reports are sent home at the end of the academic year. Informal discussions are held by appointment with individual sets of parents as and when required.

The new National Curriculum sets out what is to be taught within each year group or phase; the descriptors for reporting to parents about their children are now as follows:	
Below (B)	Is consolidating elements of the previous year’s standard but may also be starting to achieve in areas of this year’s standard
Working Towards (T)	Is emerging in their understanding of the requirements of the year and shows signs of working towards the expected standard for their year group.
Working At (At)	Is secure in most objectives for the end of the academic year and is achieving well within the expected standard.
Working at Greater Depth (GD)	Is confidently achieving all objectives at the end of the academic year and has a deep and thorough understanding of the subject, able to apply his/her skills in a range of different contexts.

At the end of KS1

Teacher assessment (TA) is the main focus for end of key stage 1 assessment and reporting, and is carried out as part of teaching and learning. The statutory national curriculum Maths tests must be administered to all eligible pupils who are working at level 1 or above. These inform the final TA judgements reported for each pupil at the end of KS1.

Schools are not obliged to report task or test results separately. However, parents must be allowed access to their child’s results on request.

At the end of KS2

From 2016, KS2 national curriculum test outcomes will no longer be reported using levels. Scaled scores will be used instead.

The KS2 tests consist of:

Mathematics, Paper 1: arithmetic test (30 minutes)

Mathematics, Paper 2: fluency, problem-solving and reasoning (40 minutes)

Mathematics, Paper 3: fluency, problem-solving and reasoning (40 minutes)

For medium and long-term assessment procedures, please refer to the schools Assessment Policy. Please also refer to 'Feedback and Marking' policy.

Role of the Maths Subject Leader

The Maths Subject Leader is responsible for: ensuring staff are kept up to date with good practice in mathematics teaching, offering advice, organising inset sessions and appropriate CPD to support teachers, analysing data and giving assistance with target-setting. The Maths Subject Leader will also be responsible for organising special events related to mathematics as and when appropriate, such as Enterprise week. This is a cross-curricular week that encourages the use of mathematics in a real-world context. Each class aims to raise the most money for charity by planning, making and selling a product at a market stall at the end of the week.

Resources

Maths resources are located in the store-room adjacent to the Year 5 classrooms. Individual teachers also have a mathematics resource area within their classes so that these are readily available for the children, as well as a working wall that is updated regularly.

Monitoring and Evaluation

Policy and practice will be monitored and evaluated by the Maths Subject Leader, the Headteacher. Teachers are observed as part of the SDP and Appraisal cycle with feedback given as per the school's Monitoring Policy. Other means of evaluating teaching and learning in mathematics may include scrutiny of work, monitoring planning and analysis of progress and attainment data. The link Governor for Mathematics makes a termly visit and may be involved in any or all of these monitoring activities across the academic year.

Policy approved by Standards, Teaching & Learning Committee

Date: 23rd May 2016

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