

**Halstead Community Primary School**

# **Mathematics Policy**



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### REVIEW

This policy will be reviewed every two years

- The Staff of Halstead Community Primary School
- The Governors (Learning & Development Team)

Following the review the policy will go to the Strategy Team of the Governing Body for approval.

<b>Date received by L&amp;D team</b>	
<b>Date approved by Strategy Team</b>	
<b>Date for review</b>	

## 1. Introduction

Mathematics equips pupils with the uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways. Mathematics is a creative and highly inter-connected discipline that is essential to everyday life, critical to science, technology and engineering and necessary for financial understanding and most forms of employment. We believe, as the new National Curriculum for England Mathematics Programme of Study: Key Stages 1 and 2 states:

*A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.<sup>1</sup>*

The school's policy is informed and guided by the statutory requirements for the subject set out in the **Mathematics Programme of Study: Key Stages 1 and 2 National Curriculum in England September 2013**. In Early Years the curriculum is guided by the Early Years Profile.

This policy is a statement of principles, aims, organisation and objectives for the teaching of Mathematics at Halstead Community Primary School.

## 2. Principles

Good mathematics teaching is lively and engaging and involves a carefully planned blend of approaches and use of manipulatives that direct and support children's learning. Spoken language is also important to the teaching and learning of mathematics. We believe that the quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary, being able to make mathematical justifications and is essential for clearing up misconceptions. The pitch and pace of work is sensitive to the rate at which children learn while ensuring that expectations are kept high and progress is made by all children. Our expectations are in line with the Mathematics Programme of Study: Key Stages 1 and 2 which states:

*... the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.<sup>1</sup>*

## 3. Aims

As mathematics is important and integral for everyday life we endeavour to ensure that children develop a healthy and enthusiastic attitude towards mathematics that will stay with them. Our aims for mathematics at Halstead Community Primary School are for pupils to:

- become fluent in the fundamentals of mathematics and develop conceptual understanding as well as the ability to recall and apply knowledge rapidly and accurately
- be able to solve problems and reason mathematically
- use mathematical language
- be able to use and apply their mathematical knowledge, skills and understanding to science, other subjects and real life contexts.

## 4. Principles of Teaching and Learning

At Halstead Community Primary School we will be following, from September 2014, the new **National Curriculum for England Mathematics Programme of Study: Key Stages 1 and 2** which will underpin

our long, medium and short term planning across Key Stage 1 and Key Stage 2. The Early Years Profile is used as the basis for planning for the Early Years class. As we follow a creative curriculum at Halstead Community Primary School, mathematics lessons will sometimes be linked to the classes' current topic and may be cross-curricula when suitable and appropriate.

Each class undertakes a daily mathematics lesson which usually includes an oral/mental starter, whole class teaching input, independent, paired or group work and a plenary. During mathematics lessons pupils have the opportunity to engage in a variety of learning activities including:

- use of mental strategies and quick accurate recall of mathematical facts
- written methods
- practical work using a range of manipulatives
- investigational work
- opportunities for problem solving and reasoning
- mathematical discussion and use of mathematical vocabulary to communicate, justify or prove

At Halstead Community Primary School we recognise the importance of establishing a secure foundation in mental calculation and recall of number facts and the development of standard written methods when children are ready (see [Written and Manipulative Policy](#) and [Mental Calculation Policy](#)). Mathematics contributes to many subjects and it is important the children are given opportunities to apply and use mathematics in real contexts. We endeavor at all times to set work that is challenging, motivating and encourages the pupils to talk about what they have been doing. A planning cycle of assess, teach, practice, use and apply, assess is used. Planning is based on the Mathematics Programme of Study: Key Stages 1 and 2 but is modified using day to day formative assessment.

## **5. Assessment and Marking**

Assessment is an integral part of teaching and learning and is a continuous process. It is the responsibility of the class teacher to assess all pupils in their class. We are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and strive to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring progress.

Day to day formative assessment will be gathered in a variety of ways such as checklists, questioning, work samples, marking, pupil conferencing and observation notes. These assessments will help formulate targets, inform planning and decide which children require extra support/intervention programs.

Summative assessment is currently under review to ensure it meets the requirements of the new curriculum. However, for the 2014-2015 academic year, year 2 and year 6 will be assessed against the old National Curriculum and complete the statutory end of key stage tests.

All pupils work will be marked regularly with feedback given as appropriate (see [Feedback and Marking Policy](#) for further detail). Pupils will also have targets set regularly (at least once a term) for mathematics. These targets will be put on bookmarks for the children to access easily and be shared with parents.

## **6. Use of ICT**

Interactive Teaching Programmes (ITPs), spreadsheets, graphing, roamer and interactive games or revision websites such as BBC revisewise are available to teachers and all classrooms have interactive whiteboards. Teachers are expected to make good use of ICT to support the planning and delivery of high quality interactive lessons. In accordance with the Mathematics Programme of Study: Key Stages 1 and 2:

*Calculators should not be used as a substitute for good written and mental arithmetic. They should therefore only be introduced near the end of key stage 2 to support pupils' conceptual understanding and exploration of more complex number problems, if written and mental arithmetic are secure.<sup>1</sup>*

## **7. Special Educational Needs**

In all classes there are children of differing ability, from those on the SEN register to gifted and talented children. We recognise this fact and provide suitable learning opportunities for all children by matching the

challenge of the task to the ability of the child. We achieve these through a range of strategies:

- Setting differentiated tasks for children to meet specific learning objectives
- Giving children extra resources to support their learning
- Setting targets that will build and extend children's basic understanding
- Identifying cusp children and providing appropriate intervention programs

For further details of provision for children with SEN and for the Gifted & Talented, please refer to the school's [Equality & Inclusion Policy](#).

## 8. **Resources**

It is important that teachers use a wide range of manipulatives to model and demonstrate skills and concepts and pupils are supported in their learning by having access to these practical resources across all year groups.

The school is well equipped with the appropriate resources to enable the delivery of a quality mathematics curriculum, including Numicon resources, which are used across the school. Each class has a selection of basic everyday equipment, while thematic resources are stored centrally for easy access. When resources require updating, replacing or a new need has been identified the Subject Leader should be informed.

There will be an annual review of resources.

## 9. **Roles and responsibilities**

It is the role and responsibility of each class teacher:

- to plan and deliver the Mathematics Curriculum according to the **Mathematics Programmes of Study: Key Stages 1 and 2 National Curriculum in England 2013** statutory requirements or the Early Years Profile in Reception
- to use the Halstead maths planning format
- to monitor and assess the progress of children within their class in accordance with the Mathematics, Assessment and Feedback & Marking policies
- to raise any issues with the Subject Leader when necessary

It is the role and responsibility of the subject leader to plan for and sustain development and improvement in the teaching and learning of Mathematics through:

- Leading / organising staff development
- Ensuring continuity and progression through monitoring of planning, books and lessons
- Supporting the development of record keeping, assessment and target setting systems in Mathematics
- Disseminating good practice
- Promoting the subject across the school
- Monitoring, ordering and organising Maths resources
- Keeping up to date with developments in Maths and disseminate to others.
- Informing the Headteacher and Numeracy link Governor of issues affecting Mathematics within the school.

## 10. **Health and Safety**

Please refer to the school's [Health and Safety Policy](#).

**11. Racial Equality and Equal Opportunities**

Please refer to the school policies for [Equality and Inclusion](#).