



# Hampton Hargate Primary School

## Maths Policy

Date: AUTUMN 2023  
Review date: AUTUMN 2025

Hampton Hargate Primary School believes that all children, regardless of ability and behaviour are valued equally. Groups of pupils (eg. SEND pupils, children in care, EAL pupils etc) are not viewed as separate but are part of the whole school approach. Different children's needs are recognised and met through varied and flexible provision and the use of different styles of teaching & learning throughout the curriculum. Every Child Matters (ECM) is an important part of the school ethos and we encourage all staff, governors, visitors, helpers etc to play their part in promoting this. This policy therefore applies to all our children, regardless of their gender, faith, race, culture, family circumstances or sexuality.

This school is committed to safeguarding and promoting the welfare and safety of all children and expects all staff to share in this commitment. All staff must follow the guidelines set out in the relevant section of **myconcern®** which is available online.

## **INTENT**

At Hampton Hargate Primary School we promote mathematics as a skill that we all use on a daily basis because it is an essential part of everyday life. Mathematics helps everyone to make sense of the world around them. We encourage children to develop the ability to calculate, reason, problem solve, understand and appreciate relationships and patterns in both number and space. We nurture skills and attitudes such as enjoyment, resourcefulness, resilience and cooperation, with the intention to ensure that children can understand and utilise the power and purpose of mathematics throughout their everyday lives.

The National Curriculum for mathematics 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 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;*
- *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 simpler steps and persevering in seeking solutions.*

*Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.*

*The expectation is that 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.*

*DfE Mathematics Programmes of Study, September 2013*

Our ethos is to support our children to enjoy an inspiring, number-rich and motivational maths environment. We want all pupils to develop a positive 'can do' attitude to maths and feel happy and confident in lessons. When appropriate, we do this by linking mathematical concepts, skills, knowledge and understanding to other areas of the curriculum, thus providing meaningful cross-curricular opportunities. Mathematics teaching is progressive and inclusive for all children, including SEND, Pupil Premium, EAL and those who are More Able, Gifted and Talented, through differentiated challenge, careful assessment and targeted support. Our intent is for every child to leave our care as able and independent mathematicians, with the confidence and skills required to calculate fluently, reason confidently and solve problems efficiently in the next steps of their educational journey and in preparation for adulthood.

## **IMPLEMENTATION**

### Maths curriculum

At Hampton Hargate Primary School teachers plan their daily lessons using the National Curriculum for mathematics, to ensure that we fulfil the statutory requirements of the programmes of study for mathematics. Teachers enhance this from a bespoke and evolving quality assured list of resources and websites to provide extra challenge and greater depth, "going the extra mile." In order to ensure that planning reflects different learning styles, teachers include challenge for all children's needs while delivering well-structured lessons, in an engaging manner at an appropriate pace. To ensure consistency across the whole school, teachers consult the school's calculation guidance documents and follow an agreed Whole School Overview, which outlines the areas of mathematics that will be taught in each term. Teachers follow small steps to plan and deliver progressive learning of essential skills and to encourage mathematical reasoning to solve problems.

We encourage children to take responsibility for their own learning and promote positive mathematical mindsets. The children are encouraged to reflect on and review their learning through reasoning, discussions, opportunities for feedback and reflection.

We achieve this through a range of strategies; differentiated and adapted group work, organising the children to work in pairs on open-ended problems or games, or by using our teaching skills and our teaching assistants to ensure that work is matched to the needs of the individuals.

### Teaching and learning styles

The school uses a variety of teaching and learning styles in mathematics lessons. Our principal aim is to develop children's knowledge, skills and understanding in mathematics. We do this through daily lessons and the application and development of key skills across other curriculum areas.

In EYFS the environment is language rich and the provisions and resources enable children to explore mathematical concepts. Long- and medium-term planning is driven by a thematic curriculum which ensures coverage of all areas in the EYFS curriculum framework. Maths learning builds from a concrete understanding of concepts where children are manipulating objects. When children are able to visualise concepts this way, they are then introduced to the same concepts pictorially, then abstractly, to support them to apply their knowledge to different situations as they go up the school.

In Year 1-3 children are taught by following a concrete, pictorial and abstract approach to support learning and engage the children in their maths lessons.

In Year 4-6 children are usually taught in sets and continue to follow a CPA approach. Setting is used when appropriate in discussion with the HT and Key Stage leaders across the school. There are 3 sets in each year group and extra support is allocated where needed in discussion with class teachers.

All classes have the opportunity to use a wide range of resources such as part whole models, tens frames, bar models, numicon, number lines, place value cards and counter, base ten and other equipment to support their work. Children and teachers use IT in mathematics lessons where appropriate, knowing it will enhance their learning, and to assist with modelling ideas and methods. During our daily lessons, we encourage

children to ask as well as answer mathematical questions and provide explanations for their thinking, using precise mathematical vocabulary and stem sentences.

In order to support and extend learning within school, children receive weekly mathematical homework to practise fluency of facts, skills and challenges.

All classrooms have a mathematics learning wall where children have visual access to appropriate representations to support their mathematical thinking.

In addition to the daily maths lesson, the children also have a daily fluency session designed to give children confidence with numbers through varied and frequent practice. It builds number sense and develops a range of core skills in maths.

Some children require targeted small-group or one-to-one support and attention to continue to make progress in mathematics. This support uses experienced, trained teachers and teaching assistants to deliver targeted activities, including structured resources and activity plans with clear objectives. Connections are made between these sessions and classroom teaching to maintain a consistent approach. Provision is also made for children through booster groups, providing additional support from teachers. Pupil Premium teaching assistants may support children with individual mathematics targets which have been set by their teachers, if appropriate.

## **IMPACT**

Impact is monitored through consultation and dialogue with the staff (teachers and TAs) and completion of a staff voice to measure their engagement and offer opportunities to enhance working practises collaboratively. We use data from termly assessments, pupil voice, book scrutiny, lesson observations and small group work, to understand the children's attitude and engagement towards maths. We encourage children to confidently talk about their work in maths lessons and apply age-appropriate skills and knowledge. They are willing to take risks and learn from their mistakes, showing both perseverance and resilience in mathematical learning. They are confident, independent learners who have the building blocks in place to provide a solid mathematical foundation.

We use formative teacher assessment to adjust our daily teaching to support children appropriately. We use HeadStart assessments for both arithmetic and reasoning, three times a year. This tracks pupil progress alongside teacher assessment, enabling us to record data and monitor standards. Year 2 and Year 6 children complete the national SATs tests during the Summer term and Year 4, the online multiplication tables check (MTC).

Reviewed Autumn 2023 by Rachel Reid and Tessa Brooker  
Date for next review: Autumn 2025