Mathematics Policy

Last reviewed: Feb 2019
Next review date: Feb 2020
Mathematics Policy – updated February 2019

This policy gives all members of the school community clear guidance on maths at Stanford le Hope Primary School.

Subject Aims

Mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. 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. (National Curriculum 2014)

The Nature of Mathematics in Our School

The purpose of mathematics in our school is to develop:

- a positive attitude towards mathematics and an awareness of the relevance of mathematics in the real world
- competence and confidence in mathematical knowledge, concepts and skills taught through a mastery approach
- an ability to become fluent, solve problems, to reason, to think logically and to work systematically and accurately
- initiative and an ability to work both independently and in cooperation with others
- an ability to use and apply mathematics across the curriculum and in real life

Spiritual, Moral, Social and Cultural

The teaching of mathematics supports the development of our Co-operative Values through the way we expect the children to work with each other in lessons. We group children so that they have the opportunity to work collaboratively and discuss their ideas and results.

Equal Opportunities

Contact with mathematics using a variety of approaches can affect the way the children think and feel about the subject. Mathematics should be interesting and approached in a variety of ways. It should be available to all children regardless of maturity, ability, race and gender. Further information on our approach to equal opportunities can be found in the policies for Special Educational Needs.
All teaching and non-teaching staff are responsible for ensuring that all children, irrespective of gender, ability, ethnic origin, religion and social circumstance, have access to the whole curriculum. All children will have access to the National Curriculum 2014 and EYFS Early Learning Goals and be given appropriate support. Consideration will also be given to gender bias.

**Learning and Teaching Objectives**

Teachers will:

- Follow the White Rose Hub long term planning grid when creating medium term plans
- Use Numicon and bar modelling to support their planning
- Use manipulatives wherever appropriate to support learning
- Set half termly targets
- Share targets with the children and set out the steps to success
- Plan daily sessions (up to 60 minutes) incorporating the teaching of mental calculation strategies and problem solving and reasoning.
- Ensure that the daily learning objective and success criteria are shared during each lesson
- Ensure that each lesson contains a reflection time/plenary session when pupils are given the opportunity to reflect on their learning
- Ensure teaching is engaging and allows children to make progress from their starting point
- Plan for different ability groups within the class or set.
- Follow the calculations policy when modelling new strategies
- Assess half termly based on what has previously been taught and analyse gaps
- Provide extension tasks

The children will:

- Experience a balanced range of mathematical activities as an integral part of the whole school curriculum.
- Know what their mathematics target is and what they need to do in order to achieve it.
- Have opportunities to acquire and develop appropriate basic mathematical skills, concepts, attitudes and knowledge.
• Have access to tasks, which encourage the development of mathematical language and vocabulary.
• Be given opportunities to apply the mathematical knowledge, skills and understanding in real life contexts.
• Be given opportunities to develop reasoning and problem solving skills.

Curriculum and School Organisation

Planning
We use the White Rose Hub as an outline of what to teach across KS1 and KS2. In Foundation Stage the Early Learning Goals (Maths – number and Shape, shape and measure) is used to plan the teaching of mathematics. We ensure the progression of teaching the four rules by referring to the school’s Calculations policy.

Mathematics is taught every day with each lesson including some whole class teaching and/or some differentiated independent work and a range of AfL strategies. Lesson plans reference the key objective, give details of new learning and differentiated activities that will be used to support the learning, details of AfL strategies to be used. The Learning and Teaching is evaluated and informs next steps.

Foundation stage
Planning for mathematics in the Foundation Stage takes into consideration the guidance outlined in the document ‘The Early Years Foundation Stage’ from the Department for Education and Skills, 2007. The specific Area for Learning and Development is Problem Solving, Reasoning and Numeracy. EYFS also follow the mastery scheme – The White Rose Hub for their medium term planning.

There is a medium term plan for both reception and nursery to follow which focuses on the Development Matters statements for their relevant age group. Reception planning also takes into consideration the Early Learning Goals, however, planning remains flexible to meet the needs and interests of the current children.

Resources and Accommodation
A range of mathematical software and internet access is available to support the use of ICT in mathematics. Mathematics trolleys (for KS1 and KS2) are located either in the atrium or classrooms, which contain a variety of resources. Large items are stored centrally in Wharf building so all staff has access to them.

Homework
It is our school policy to provide parents and carers with opportunities to work with their children at home. These activities may only be brief, but are valuable in promoting
children’s learning in mathematics. Some of these activities maybe through Prodigy online or MyMaths/Education City.

**Assessment**

Daily AfL during lessons, and marking is used to inform the planning for the next lesson. At the start of each unit of work or weekly, the children will self-assess their learning against their Learning Objectives, this is completed at the start of the unit or week and at the end of it.

Formal tests are carried out at least four times a year (KS 1 and 2); they are used formatively using question level analysis to identify areas of weakness and summatively to help inform the teacher assessments for each child which is reported on SIMS and on end of year reports to parents.

In Foundation Stage this takes the format of observations by all staff. These may be focused observations, looking specifically for a skill the children have acquired or incidental where children are observed using a skill during their play. These observations are recorded in their individual profile as evidence towards their achievements and to inform future planning.

In Reception, children also complete a half termly assessment which is practical and done through a one to one session with a teacher. This assessment reflects the Early Learning Goals and is analysed and any areas of weakness are then fed into future planning and next steps.

All year groups complete an end of year test.

**Evaluation**

Evaluation and review of the mathematics policy will take place in accordance with the governing bodies rolling programme and is then presented to the governors.

**Monitoring**

Monitoring is the responsibility of the Maths Team and Senior Leadership Team. This includes:

- Lesson observations or visits
- Work scrutiny
- Learning Walks
- Reviewing layered targets
- Scrutiny of teacher planning

Results of monitoring are fed back to staff and action points identified.
The LGB will also monitor mathematics through visits, data and/or reports to the LGB.

DATE Feb 2019