

Folly Hill Infant School



MATHEMATICS POLICY

Curriculum Suite

Signed Chair of Governors

Signed Headteacher

Date: Spring term 2019

Review Date: Spring Term 2021

AIMS AND OBJECTIVES

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives.

The aims of mathematics are:

- to promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion;
- to promote confidence and competence with numbers and the number system;
- to develop the ability to solve problems through decision-making and reasoning in a range of contexts;
- 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 understand the importance of mathematics in everyday life.

LEARNING AND TEACHING STYLE

The school uses a variety of learning and teaching styles in mathematics sessions. Our principal aim is to develop children's knowledge, skills and understanding in mathematics. During lessons we encourage children to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources such as number lines, number squares, digit cards and small apparatus to support their work. Children use technology in mathematics lessons where it will enhance their learning, as in modelling ideas and methods. Wherever possible, we encourage the children to use and apply their learning in everyday situations.

At EYFS children will access maths learning through Early Years Foundation Stage- numbers and shape, space and measure. There will be mathematical learning opportunities each day. Learning in all classes there are children of differing mathematical ability. We recognise opportunities are given through play and daily maths sessions. 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 this through a range of strategies - in some lessons and by organising the children to work in pairs on open-ended problems or games.

MATHEMATICS CURRICULUM PLANNING

Mathematics is a core subject in the National Curriculum, and we use the National Curriculum for Mathematics as the basis for implementing the requirements of the programme of study for mathematics. Early Years staff base planned mathematical learning opportunities on the statutory EYFS.

We carry out the curriculum planning in mathematics in three phases (long-term, medium-term and short-term). The National Curriculum for Mathematics and EYFS gives a detailed outline of what we teach in the long term. Our learning and teaching planning and scheme of learning identifies the key objectives in mathematics that we teach in each year.

Our medium-term mathematics plans give details of the main teaching objectives for each term and define what we teach. They ensure an appropriate balance and distribution of learning across each term. These plans are kept and reviewed by the subject leader.

It is the class teacher who completes the weekly plans for the learning of mathematics. These weekly plans list the specific learning objectives for each lesson and give details of how the learning objectives will be met and what success will look like. The class teacher keeps these individual plans, and the class teacher and subject leader discuss them on an informal basis.

THE EARLY YEARS FOUNDATION STAGE

Pupils learn about numbers and shape, space and measure in our reception class. As the class is part of the Early Years Foundation Stage, we relate the mathematical aspects of the children's learning to the objectives set out in Development Matters, which underpin the curriculum planning for children aged zero 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.

CONTRIBUTION OF MATHEMATICS TO LEARNING IN OTHER CURRICULUM AREAS

English:

Mathematics contributes significantly to the teaching of English in our school by actively promoting the skills of reading, writing, speaking and listening. For example, we encourage children to read and interpret problems in order to identify the mathematics involved. The children explain and present their work to others during plenary sessions. Younger children enjoy stories and rhyme that rely on counting and sequencing. Older children encounter mathematical vocabulary, graphs and charts when using non-fiction texts.

Computing and ICT:

Children use and apply mathematics in a variety of ways when solving problems using technology. Younger children use technology to communicate results with appropriate mathematical symbols. Older children use it to produce graphs and tables when explaining their results or when creating repeating pattern. When working on control, children use standard and nonstandard measures for distance and angle. Children use computers and tablets which have a range of software and apps to enable mathematical learning.

Personal, social and health education (PSHE) and citizenship:

Mathematics contributes to the teaching of personal, social and health education, 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. We present older children with real-life situations in their work on the spending of money.

Spiritual, moral, social and cultural development:

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results. Links have been identified in Humanities, Art, Science and Design Technology.

PE

Children can use and apply maths to solve problems such as how far have I thrown the ball? How much further do I need to throw it to hit a target?

Time can be used during PE sessions to time a match, for responding to a challenge such as how many times can I skip in a minute?

Pupils can consolidate their knowledge of shape through using their own bodies in dance and gymnastics to make shapes.

MATHEMATICS LEARNING FOR PUPILS WITH SPECIAL EDUCATIONAL NEEDS/MORE ABLE CHILDREN

Children need to learn basic maths skills whatever their ability. It is part of the school curriculum policy to provide a broad and balanced education to all children. We provide learning opportunities that are matched to the needs of children with learning challenges. Work in mathematics takes into account the targets set for individual children in their SEND support/or Provision Maps.

ASSESSMENT AND RECORDING

Progress is tracked to ensure children are on target. Assessment of the children's maths is ongoing. After each term's assessments are completed, the head teacher meets with the class teacher to analyse data. Pupils who need extra support to achieve their target can then be identified and suitable intervention put in place.

We assess children's work in mathematics from three aspects long-term- did they achieve their target?, medium-term- Assessment of learning such as SATS,EYFSP, short term- next steps). We make short-term assessments which we use to help us adjust our daily plans. These short-term assessments are closely matched to the learning objectives. Summative and formative assessment is used to identify learning objectives in the medium term.

We make long-term assessments towards the end of the school year, and we use these to assess progress against school and national targets. We pass this information on to the next teacher at the end of the year, so that she can plan for the new school year. We make the long-term assessments with the help of end-of-year tests and teacher assessments. We use the national tests for children in Year 2. We also make termly formal assessments of children's progress measured against the level descriptions of the National Curriculum.

The mathematics subject leader keeps samples of children's learning in a portfolio. This demonstrates the expected level of achievement in mathematics in each year of the school. Teachers meet regularly to review individual examples of work against the national curriculum standards.

RESOURCES

There is a range of resources to support the teaching of mathematics across the school. All classrooms have a number line and a wide range of appropriate small apparatus. Calculators and a range of audio visual aids are available from the central storage area.

MONITORING AND REVIEW

Monitoring of the standards of children's work and the quality of teaching in mathematics is the responsibility of the mathematics subject leader. The work of the mathematics subject leader also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject and providing a strategic lead and direction for the subject in the school. The mathematics subject leader provides an annual summary in which she evaluates strengths and weaknesses in the subject and indicates areas for further improvement. The mathematics subject leader reviews samples of children's work and undertakes lesson observations of mathematics teaching across the school. A nominated governor is briefed to oversee mathematical development through the School Development Plan. This governor reports regularly to the full governing body and subject leader to review progress.

