

CALSHOT PRIMARY SCHOOL

Mathematics Policy



'At Calshot we aim to provide the highest quality of learning and care for ALL children in a safe and enjoyable environment, nurturing personal values, in partnership with parents, carers and the wider community. We expect everyone in our school to strive to achieve their full potential.

WHAT IS MATHEMATICS AND WHY IS IT IMPORTANT?

Mathematics helps us to make sense of the world around us and it enriches our lives on a daily basis. It is a universal language that is used to explain, predict and represent events and tackle everyday problems. Mathematics is an important aspect of modern day society; it is of central importance to science, technology, finance and engineering. Mathematics is necessary for any employment or independent life.

At Calshot Primary School, our aims for the teaching of mathematics are taken from the National Curriculum and fall under three branches: **fluency**, **reasoning** and **problem solving**. We recognise that pupils need to learn basic number facts and acquire fluency in procedures whilst developing the confidence, resilience and understanding to solve increasingly complex mathematical problems. At Calshot, we aim to provide children with a mathematical journey each week through the three main aims of the National Curriculum.

Our approach to the teaching of Maths ensures that all children develop a rich and deep understanding of mathematics so that future learning is built upon firm foundations.

PLANNING

At Calshot, we believe that the key to success in mathematics for all pupils is quality first teaching. Quality first teaching includes:

- Focused lesson design with clear, skill based learning objectives
- Pupil involvement and engagement throughout the lesson
- Appropriate use of teacher questioning, modelling and explaining
- High expectations of all pupils
- Giving all pupils the opportunity to tackle challenging questions/problems
- Use of encouragement and praise to engage and motivate pupils

Maths plans are produced on a weekly basis through collaborative planning by teachers in each year group. Teachers are responsible for the mathematics in their class/year group in consultation with and with guidance from the Mathematics Leader. Learning objectives are taken from the relevant year band from the National Curriculum and are grouped in line with the White Rose Medium Term plans. As a result, mathematics skills are blocked to ensure children gain a greater depth of understanding. Each week, planning meets the three main aims of the National Curriculum and pupils are provided with a mathematical journey from

fluency to reasoning and problem solving. Planning is always guided by assessment for learning strategies and are tailored to meet the needs of the specific year group.

TARGET GROUPING AND SETTING

In KS1 children work in ability groups within their own class. From Years 3-6 the children are taught in Maths sets across the year group, which enables appropriate support and challenge to be given. Where possible pupils in Years 1-6 are identified to receive additional support for mathematical development within small groups, by the Headteacher, Deputy Headteacher and specialist Teaching Assistants.

Special Needs

The provision for children with special needs is detailed in the Inclusion Policy. Central to this is the early identification, intervention and careful planning for differentiation. ITPs for children identified as SEND in mathematics will detail relevant individual targets in Maths.

LESSON STRUCTURE

Mathematics lessons provide children with the opportunity to explore new ideas, solve problems and a space where mistakes are celebrated as learning tools. Mathematics lessons are delivered using Smart Notebook flipcharts which enables all pupils to receive quality modelling and a range of visual mathematical images.

At the beginning of each lesson pupils are presented with an Anchor Task. This is a problem, linked to the learning objective that the children solve, independently or in small groups, before the learning objective is shared. Anchor Tasks are carefully planned opportunities for children to tackle a mathematical problem, every day, and provide a valuable opportunity for discussion and assessment for learning.

High quality resources, from textbooks and other sources, are used in independent tasks during lessons which give all children the opportunity to apply their understanding independently. Independent tasks are differentiated based on ability groupings and the children's skillset in order to provide the right balance between support and challenge. Children identified as Greater Depth in Mathematics are challenged consistently and their thinking extended and deepened through targeted activities, questions and extension opportunities.

Once a week, children are provided with a formal opportunity to record their mathematical thinking and understanding through Reasoning Bubbles. These demonstrate children's depth of understanding in relation to skills taught over the week.

CROSS-CURRICULAR LINKS

When appropriate, cross-curricular links are made to enhance the teaching and learning of Mathematics skills. In Maths lessons, links are made to our thematic curriculum, where appropriate. Maths skills are also applied in Science, Art, History, Computing and Design Technology.

EARLY YEARS FOUNDATION STAGE

Teachers support children in developing their understanding of number, shape, space and measure in a broad range of contexts in which they can explore, enjoy, learn, practise and talk about their developing understanding. Teachers offer opportunities for these skills to be practised, in order to give children confidence and competence in their use. This Area of Learning and Development includes seeking patterns, making connections, recognising relationships, working with numbers, shapes, space and measures, and counting, sorting and matching. Children use their knowledge and skills in these areas to solve problems, generate new questions and make connections across other Areas of Learning and Development. Mathematical understanding will be developed through stories, songs, games and imaginative play.

ASSESSMENT

At Calshot, assessment is continuous and ongoing. Planning is annotated daily and informal assessment data is recorded using notes. At Calshot assessment takes place as follows:

- Reception children will be assessed against the New Development Matters and Early Learning Goals.
- End of Key Stage 1 and Key Stage 2 SATs will take place.
- Year 4 Multiplication Table Check
- Termly White Rose Maths Assessments take place in Years 1-6.
- A Maths Record of Achievement or Early Years Target Sheet, linked to the National Curriculum or Early Years Framework, is placed in the front of Maths books and assessed continually.
- Integral assessment relates to the intended learning objective and teachers use the consistent symbol to illustrate achievement.
- Weekly mental maths tests in Years 2-6.

- Multiplication and division facts are tested weekly in Years 3-6, with children progressing through different levels of challenge (bronze, silver and gold).

PRACTICAL RESOURCES

Practical resources are used to enrich the teaching and learning of mathematics skills. All year groups have a range of mathematical resources, including base ten, Numicon and place value counters, which enable greater number fluency and enhance the teaching of geometry and measurement skills. Mathematical skills are introduced through a concrete approach, alongside a range of visual resources which then informs abstract understanding. Resources which are not used or required regularly are stored centrally outside the upstairs Year 5 classroom.

HOME/SCHOOL LINK

The link between home and school is forged in a number of ways. In Key Stages 1 and 2 homework is assigned on a weekly basis. This will support the Mathematics work in the classroom. Each year, parents are invited to attend a Maths workshop which is delivered by the class teacher and provides parents with the opportunity to take part in a Maths lesson with their child. To give more detailed outlines of the child's progress, twice yearly, formal meetings are arranged. The school will also present to parents, for discussion, an annual written report. SAT's results are reported at the end of Key Stage 2.

MONITORING AND EVALUATION

Monitoring and evaluation of Mathematics teaching in the School is carried out by the Mathematics Leader, the Headteacher, the Deputy Headteacher and Phase Leaders. Mathematics planning and the children's books are scrutinised, once a term, by the Maths Leader, alongside the Headteacher, the Deputy Headteacher or Phase Leaders. Once a year, selected pupils, of different mathematical ability and from a range of year groups, take part in Maths pupil interviews. These give pupils the opportunity to evaluate their Maths learning which help us to understand what pupils enjoy and how we could further improve the Maths curriculum.

ROLE OF THE MATHEMATICS LEADER

The role of the subject leader is to oversee the teaching and learning of Mathematics, across the school, to ensure that the achievement of pupils is optimised through a broad and balanced curriculum. The subject leader will be responsible for the improving standards of teaching and learning in Mathematics through:

- Monitoring pupil progress, across the school
- Provision of the Early Years Framework and the National Curriculum (including intervention and support programmes)
- The quality of the learning environment, teaching and resources
- Taking the lead in policy development
- Auditing and supporting colleagues in their CPD
- Purchasing and organising practical resources
- Keeping up to date with Mathematical developments, in the Primary sector

At Calshot Primary School, we pride ourselves on providing an enjoyable mathematical journey for all children. Children develop a deep understanding of number, measurement, geometry and statistics across the year groups, through weekly journeys from fluency to problem solving and reasoning. Mathematics at Calshot enables all children to succeed, participate actively in all lessons and enjoy learning new skills.

**Approved by the 'Achievement and Curriculum Committee' on 23rd September
2021**