

Mathematics Policy

At Weyford Nursery and Primary Academy, we believe that children need to develop to become life-long learners. Mathematics is a key aspect of the curriculum, which equips children with some of the essential life skills that help them to make sense of the world around them. At Weyford Nursery and Primary Academy we encourage the children to enjoy mathematics and to become enthusiastic mathematicians by developing their skills, knowledge and understanding through practical experiences which have relevance and purpose in everyday situations.

Aims

Across our school we aim to promote achievement, confidence and enjoyment of mathematics by developing:

1. Fluency in the fundamentals of mathematics through
 - Children having a deep understanding of mathematical concepts
 - Efficient use of mental and written calculation skills
 - Rapid recall of essential facts
2. Reasoning mathematically by
 - Having the ability to ask questions
 - Follow a line of enquiry and choosing effective strategies
 - Finding relationships and generalisations
 - Developing and argument, justification or proof, using mathematical language.
3. Solve problems by
 - Being able to apply mathematics to a variety of routine and non-routine problems with increased complexity
 - Having the ability to break down problems into simpler steps
 - Becoming resilient in seeking solutions

Objectives

To provide opportunities for all children:

- to gain an understanding of concepts through appropriate practical and real life activities, across the curriculum wherever possible
- to use the language of mathematics in a precise and meaningful way
- to discuss their mathematical experiences in order to reinforce and consolidate learning
- to develop an awareness of the uses of mathematics beyond the classroom
- to develop efficient strategies of recording
- to develop an appreciation of mathematical patterns and relationships
- to build on previous knowledge and skills
- to be able to use a range of mathematical tools, such as calculators and computers.

Teaching and learning

- Teachers will follow the National Curriculum, using the appropriate programme of study for their specific year group.
- Our curriculum in EYFS follows the Early Years Statutory Framework for the Early Years Foundation Stage, guided by Development Matters and Birth to 5 Matters.
- Planning to be carried out collaboratively in year groups and adapted where appropriate, by class teachers to reflect the abilities and needs of their pupils
- Children will spend up to 30 minutes per day, in addition to their daily maths lesson, developing their skills of instant recall and fluency through the Maths Challenge system.
- Each unit of learning will be preceded with a cold task to assess that the children have no gaps from the previous year's teaching. This allows teachers to assess the children; pre-teach those that require it and to inform the learning in carefully sequenced steps.
- Children will be shown how to use resources to visualise concepts and ideas and ultimately to aid their understanding. All children, regardless of ability, will be shown visual representations of the concepts taught.
- Pupils will be provided with a variety of opportunities to develop and extend their mathematical skills, including: group work (with or without the support of the teacher or teaching assistant); paired work; whole class teaching and individual work.
- All children will be taught efficient written methods of calculations as stated in the school's Calculation Policy.
- Learning Intentions (where appropriate) will be shared with the children at the start of the learning and will be recorded in their books. At the end of the lesson, an adult will highlight, in green, if the child has achieved the learning.
- Pencils will be used in all maths books, with any lines, diagrams, charts and tables, with straight lines, drawn using a ruler.
- All classrooms will have easy access to a variety of resources to help visualise abstract concepts and also to allow the children to work independently throughout all age ranges.
- Each classroom must have a mathematics working wall, which will display the unit of work that the children are learning, along with the learning journey, mathematical language and WAGOLs (what a good one looks like), for the children to use in activities if and when required.
- Teachers will, where appropriate, include mathematics in other subjects e.g. Science to support the children's understanding and application of statistics.

Special Educational Needs and Disabilities (SEND)

Daily mathematics lessons are inclusive to pupils with special educational needs and disabilities. Where required, children's IEP's incorporate suitable objectives from the National Curriculum for Mathematics and teachers keep these in mind when planning work. These targets may be worked upon within the lesson as well as on a 1:1 basis outside the mathematics lesson. Maths focused intervention in school helps children with gaps in their learning and mathematical understanding. These are delivered by trained support staff and overseen by the SENCO and/or the class teacher. Within the daily mathematics lesson teachers have a responsibility to not only provide scaffolded activities to support children with SEND but also activities that provide sufficient challenge for children who are high achievers. It is the teachers' responsibility to ensure that all children are challenged at a level appropriate to their ability.

SMSC

We recognise that social, moral, spiritual and cultural development is central to the education of all pupils and permeates the whole curriculum and ethos of the school. It is reflected in the behaviours of individuals and in their interactions and also in the provision of teaching, resources and learning environments. Our Maths teaching actively encourages risk taking which enables students to explore and try new ideas without the fear of failure.

Spiritual Development

This develops deep thinking and questioning the way in which the world works, thus promoting the spiritual growth of students. In Maths lessons students are always encouraged to delve deeper into their understanding of mathematics and how it relates to the world around them.

Moral Development

In lessons we strive through the teaching to encourage the students to accept responsibility for the behaviour and respect for others within the lessons, and teach them to understand the consequences of their actions on themselves and others around them. We encourage the students to develop self-confidence within mathematics, and to build their self-esteem within the subject.

Social Development

Problem solving skills and teamwork are fundamental to Mathematics, through creative thinking, discussion, explaining and presenting ideas. Students are always encouraged to develop their Mathematical reasoning skills, communicating with others and explaining concepts to each other. Self and peer reviewing are very important to enable students to have an accurate grasp of where they are and how they need to improve.

Cultural Development

Mathematics is a universal language with a myriad of cultural inputs throughout the ages. We also explore the Mathematics applied in different cultures such as Rangoli patterns, symmetry, tessellations and Islamic geometric patterns. The ability to use exchange rates for foreign travel are also important life skills students will learn. The skills of analysing data are taught to enable students to make sense of vast amounts of data available in the modern world around them.

Assessment

Assessment is regarded as 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. In our school, we are continually assessing our pupils and recording their progress. We strive to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefitting them and ensuring progress.

Information for assessment will be gathered in various ways: by talking to the children, observing their work, marking their books etc. This assessment will be used to plan further work and allow variation in tasks.

Teacher assessment will be on-going against year group expectations, in the form of hot tasks and consolidation. Years 3, 4 and 5 will have more formal assessments at the end of each term. Year 2 and Year 6 SATs will take place in the first half of the Summer Term.

In EYFS, assessment will begin with a baseline assessment during the first half of the Autumn term, followed by assessments as set out in our school's EYFS policy.

Reporting to Parents

This will be carried out through informal discussions, twice yearly parents' consultation meetings, annual written reports and notification of test/teacher assessment results (Years 2 and 6 SATs).

Role of the Mathematics Leader

The Maths Leader is responsible for mathematics throughout the school. This includes:

- Leading by example by setting high standards in their own teaching
- Ensuring teachers understand the requirements of the National Curriculum and support them to plan lessons where needed
- Preparing, organising and leading CPD and joint professional development, sometimes supported by consultants
- Working with the Inclusion Leader and SENCO
- Observing colleagues at times, with a view to identifying support that may be needed
- Attending CPD and core provision meetings and disseminate knowledge through staff meeting/INSET
- Keeping parents informed about mathematical issues
- Discussing regularly with the Strategic Leader, Head of School, SLT, Maths governor and governing body, the progress of mathematics in the school
- Monitoring and evaluating mathematics provision in the school, by conducting regular work scrutiny, learning walks and assessment data analysis and feed back to SLT
- Ensuring each classroom has the appropriate resources required to deliver the curriculum effectively and, where necessary, use the maths budget to fill gaps.

This policy was formulated by the staff and governors of Weyford Nursery and Primary Academy and will be reviewed every three years.

Signed Date
Headteacher

Signed Date
Chair of Governors