

Without mathematics,
there's nothing you can do.
Everything around you
is mathematics.
Everything around you
is numbers.

Intent Statement

Mathematics

The only way
to learn
mathematics
is to do
mathematics.

Mathematics teaches children how to make sense of the world around them through developing their ability to use number, calculate, reason and solve problems. It helps children to understand relationships and patterns in both number and space in their everyday lives. The Mathematics curriculum should be bold, provide breadth and balance and be relevant and differentiated to suit the needs of all children in the modern world. It should be flexible, motivating all pupils, thus encouraging success at all levels.

At Warren Wood Primary School we aim:

- To develop an enjoyment of learning through practical activity, investigation, exploration; mental exertion and discussion;
- To foster positive attitudes towards Mathematics by developing pupils confidence, independence, persistence and co-operation skills;
- To help children to understand how Mathematics has a real and practical importance in everyday life;
- To enable children to become confident, fluent and efficient mathematicians;
- To develop confidence and competence with the number system and computational skills;
- To develop the ability to solve problems through connecting ideas, decision-making and applying their mathematical skills in a range of contexts, including other subjects such as Science and Geography;
- To ensure children have good communication skills and are able to explain Mathematics using the correct mathematical vocabulary;
- Where possible, provide learning with cross curricular links;
- To secure high standards in Mathematics through effective teaching and learning

Implementation

At Warren Wood Primary School, children should be taught according to year group expectations set out within the 2014 National curriculum. An emphasis will be placed on children 'mastering' the mathematical concepts set out within their year group expectations, rather than being introduced to new content from another year group. Teaching will focus on the 'Sequence of Lessons' approach; this will follow the pattern of:

1. SKILLS - teaching and practising the skill in its basic context.
2. MASTERY - obtaining greater level of understanding and being able to apply the learning in a different context.
3. GREATER DEPTH – learning transferred and applied in other contexts, pupils explain their understanding to others.

Pupils will begin by recapping prior learning through the use of the '4 From Before'.

Pupil knowledge will be extended through the use of the school Chilli Challenge approach. This will allow children to show greater depth in their learning.

Within each sequence of lessons, sufficient time will be allocated to reasoning and problem solving as appropriate to the learning objective.

Foundation Stage

- Our Foundation Stage teachers use the Early Years Foundation Stage Curriculum to support their teaching of Mathematics in the Foundation Stage.
- The children have the opportunity to talk and communicate in a widening range of situations and to practise and extend their range of vocabulary and mathematical skills.
- The children explore, enjoy, learn about, and use Mathematics in a range of personalised situations.
- Mathematics is planned on a weekly basis and assessed using the criteria from the Early Learning Goals.

Key Stage 1 and 2

- Maths is taught on a daily basis.

- Teachers follow the National Curriculum 2014, when planning Mathematics teaching.
 - Warren Wood long term maths planning is followed by all year groups and is supplemented by the White Rose Hub Mathematics materials.
- Teachers use a variety of age appropriate materials to support the teaching and learning.

Progression of Calculation Methods

An outline of the calculation methods used for each number operation at Warren Wood Primary, determined by year group, can be found in our *Calculation Progression Policy*. This policy details appropriate calculation methods for each year group and focuses on the concrete/pictorial/abstract.

Special Educational Needs

The daily mathematics lessons are inclusive to pupils with special educational needs. Where required, children's IEPs incorporate suitable objectives from the New National Curriculum for Mathematics and teachers use these objectives 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 catch up programmes are available in school to help children with gaps in their learning and mathematical understanding.

Within the daily mathematics lesson teachers provide differentiated activities to support children with special educational needs and to provide appropriate challenges for children who are high achievers in mathematics.

Equal opportunities

We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multi-cultural aspects of mathematics. We ensure that all children are able to fulfil their potential regardless of race, religion, disability or gender.

Assessment

Assessment will take place through summative and formative processes.

Formative Assessment

On a day to day basis children's mathematical learning is assessed by:

- Regular marking of children's work
- Identifying and analysing children's errors and misconceptions
- Questioning children
- Discussion
- Observations of children working

Summative Assessment

This will take place at a time when the class teacher feels it appropriate to assess the children's understanding of a particular strand or a range of strands of work. This will be used to support teachers' judgements.

Year 2 and Y6 children complete SATs assessments every May. Children in year 3, 4 and 5 will sit NFER year group tests in the summer term.

Marking and feedback

All marking and feedback in Mathematics will be in line with the school's Marking Policy.

Parents and Homework

We recognise that parents make a significant difference to children's progress in Mathematics and encourage this partnership. The aim of homework is always to consolidate or extend learning that has been happening in the classroom.

Impact

- A long term bespoke Warren Wood planning grid has been created which ensures coverage and continuity. All teachers use this to plan maths lessons.
- High quality maths resources have been purchased for all year groups and children have access to practical maths resources in the classroom.
- The Maths Calculation policy has been rewritten and is followed by all staff teaching maths.
- INSET training has been delivered to teachers on the new planning and calculation policy.

- Tracking sheets for non negotiables have been created and are being used from reception to year 6.
- Tracking sheets for times tables have been created and are being used from reception to year 6.
- NFER testing now happens termly in key stage two.
- Catch up funding has been used to employ a maths specialist teacher who has worked with small groups of children across key stage two.
- LA advisor has conducted a deep dive into maths at school including a book look. This was a positive experience which highlighted the strengths in maths at our school and allowed the opportunity to investigate areas requiring further work.