

Ramshaw Primary School



Maths

Intent

- For every child to develop a sound understanding of Maths, equipping them with the skills of calculation, reasoning and problem solving that they need in life beyond school.
- Children will enjoy maths and be confident that they can succeed.
- Children will learn to reason and solve mathematical puzzles and make links with real life.
- Children will learn from their mistakes and become resilient learners..
- Children will learn basic number facts and apply these to ensure they work quickly and accurately.
- Children will develop a depth of understanding through the teaching of mathematics

Implementation

- Maths is taught as whole mornings twice a week with separate mental maths sessions to enable children to become fluent and efficient in all previous learning
- Mental maths is completed daily so children become fluent and efficient in all previous learning.
- A carefully planned learning journey of small steps will be taken in order to ensure that all children master the concepts before moving on and that no child is left behind.
- If a pupil requires extra support, this is identified quickly and where possible same day intervention takes place.
- Lesson design ensures that the 3 aims of the National Curriculum are covered; fluency, reasoning and problem solving.
- Children learn concepts following a concrete – pictorial – abstract sequence.
- Questions are carefully devised in order to make explicit use of patterns and connections.

- Stem sentences are used in order to ensure clarity of the small step and a deep understanding that is not lost over time.
- Teacher assessment is used accurately and effectively, through end of block and end of term assessments.
- Maths is closely monitored by the subject leader which involves lesson observation, book scrutinies, staff meetings, work with advisors and support.

Impact

- A love of maths
- Fluent, competent and efficient mathematicians
- Ability to reason and problem solve, often using more than one approach
- Have the skills to use maths in real life
- Knowledge and quick retrieval of basic number facts
- Application of patterns and connections
- Able to learn from mistakes and are resilient
- Ready for the challenges of the next year group and secondary ready

The Importance of Mathematics

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary in most forms of employment. A high-quality mathematics education, therefore, provides a foundation for understanding the world, the ability to reason mathematically and a sense of enjoyment and curiosity about the subject.

Mathematics is a proficiency which involves confidence and competence with numbers and measures. It requires an understanding of the number system, a repertoire of computational skills and an ability to solve number problems in a variety of ways in which information is gathered by counting and measuring and is presented in graphs, diagrams, charts and tables.

Mathematics gives children a way of coming to terms with their environment.

Practical tasks and real life problems can be approached from a mathematical point of view. Mathematics provides children with imaginative areas of exploration and study and gives them the materials upon which to exercise their mathematical skills. These skills are a necessary tool of everyday life. Mathematics should help children to develop an appreciation of, and enjoyment in, the subject itself; as well as a realisation of its role in other curriculum areas.

Purpose:

The purpose of this policy is to describe our practice in Mathematics and the principles upon which this is based.

Aim(s):

We aim to develop lively, enquiring minds encouraging pupils to become self-motivated, confident and capable in order to solve problems that will become an integral part of their future.

The National Curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- can reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Children will be:

- set appropriate learning challenges
- taught well and be given the opportunity to learn in ways that maximise the chances of success.
- able to receive adult support when facing specific barriers to making progress.

Outcomes

In Mathematics education at Ramshaw Primary School we aim to sustain and develop in all children:

- confidence, understanding and enjoyment in mathematics;
- awareness of relationship and pattern, and how these can bring about a clearer understanding of a situation;
- an appreciation of mathematics as a means of communication through which they can analyse information and ideas;
- the ability to work systematically where the task requires a careful accurate approach, as well as the ability to show imagination, initiative and flexibility when appropriate;

- independence of thought and action as well as the ability to cooperate within a group;
- problem solving skills and strategies;
- the ability to use mathematics effectively as a tool in a wide variety of situations;
- sensible use of factual recall, mental and written methods, calculators, micro-technology and other mathematical aids.

Maths in EYFS (Reception)

In reception maths follows White Rose Objectives.

Whole class input which develops across the week

Teacher/HLTA Led

Independent Tasks

Children access differentiated maths provision in the classroom which allows them to apply the skills they have learnt.

Maths in Keystage 1 and Keystage 2

We have a 'teaching for mastery' approach to mathematics and follow the White Rose Objectives. The children will be taught in the following way:

- The class will be taught together, learning the same maths. In class 3 the class where possible the Y5 and Y6 pupils are taught separately.
- A planned learning journey of small steps are taken to ensure that all children master the concept before moving them on.
- If a child requires extra support, this is quickly identified and where possible same interventions takes place.
- Lesson are planned to ensure that the 3 aims of the National Curriculum are covered; fluency, reasoning and problem solving.
- Children learn concepts following a concrete – pictorial – abstract sequence.
- Questions focus on the use of patterns and connections.

Programme of Study

- Maths will be taught in blocks following the White Rose Structure
- All year groups are taught place value to start with and then addition and subtraction followed by multiplication and division.
- Once these fundamental concepts of mathematics are embedded other areas of maths are explored.

The long-term plan for Maths mostly follows White Rose Maths [WRM Maths Long Term Plan](#) as well as the National Curriculum [National Curriculum - Maths](#)

There may be changes to the long term plan as we continue to recover our curriculum after National lockdowns.

Special Educational Needs

All children will have their specific needs met through differentiated work in conjunction with targets. TA support time is planned for and provided in relation to identified needs for individuals and groups.

Assessment in Maths

Here at Ramshaw Primary School we follow White Rose's assessment.
At the end of each block, an assessment is carried out to measure progress across the topic.
At the end of each term, an assessment is carried out to measure progress across the term in a range of topics.