



1 Aims and Objectives

1.1 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. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of Mathematics.

1.2 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.

2 Teaching and Learning Style

2.1 The school uses a variety of teaching and learning styles in Mathematics lessons. Our principal aim is to develop children's knowledge, skills and understanding in Mathematics. In Mathematics, we encourage children to ask as well as answer mathematical questions and explain their reasoning. They have the opportunity to use a wide range of resources such as number lines, number squares, digit cards, place value grids and counters and other small apparatus to support their work. In class 3, children are encouraged to use a calculator to self-mark and sometimes as an aid to calculation when solving problems. Children sometimes use ICT in Mathematics lessons where it will enhance their learning. Wherever possible, we encourage the children to use and apply their learning in everyday situations.

2.2 The school adopts a Mastery approach to teaching and learning. Maths Mastery has five big ideas: coherence, variation, mathematical thinking, representation and structure and fluency. The philosophy behind Mastery is that significant time is spent developing deep knowledge of key ideas that underpin future learning and there is a careful sequencing of a journey through learning e.g. questioning, short tasks, explanation, demonstration and discussion.

2.2 In all three classes there are children of differing mathematical ability. We recognise 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 – mainly through adapted group work, and in other lessons by organising the children to work in pairs on open-ended problems or games. We aim to use

classroom assistants to support some individual children, to deliver lessons to similar ability groups and to ensure that work is matched to the needs of individuals.

3 Mathematics - Curriculum Planning

3.1 The school curriculum planning follows the new National Curriculum; we use White Rose Planning that adheres to a mastery approach. The 'Mastering Number' programme is being followed, and The Big Maths Scheme (Andrell Education) is particularly used more lower down the school to develop maths fluency.

3.2 The class teacher selects relevant Learning Objectives and translates this into their weekly plan. These daily/weekly plans list the specific learning objectives for each lesson and give details of how the lessons are to be taught and this includes planning for Teaching Assistants to deliver lessons to groups. Weekly planning is stored on TEAMS and is available in the classroom. The class teacher and subject leader often discuss them on both a formal and informal basis.

4 The Foundation Stage

4.1 We teach Mathematics in our reception class. As the class is part of the Foundation Stage of the National Curriculum, we relate the mathematical aspects of the children's work to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children aged three 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. In Reception, children are taught maths mastery through White Rose Maths on 2 days and follow the Mastering Number program on a daily basis. Reception children are given the opportunity to develop Maths skills through continuous provision activities both inside and in the outdoor areas.

5 Contribution of Mathematics to Teaching in Other Curriculum Areas

5.1 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 real life problems in order to identify the Mathematics involved. The children are encouraged to explain and present their work to others during 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.

Other Curriculum Areas

5.2 Mathematics features in all subjects across the curriculum e.g. in Geography children may compare population data and in History they will place dates onto a timeline. Science involves sorting, classifying and reading scales etc. In PE children measure their distances and read times to two decimal places, use stopwatches, trundle wheels and tape measures etc. In the teaching of Personal, Social and Health Education and School Council we may present older children with real-life situations in their work on the spending of money. Children use and apply Mathematics in a variety of ways when solving problems using ICT.

6 Teaching Mathematics to children with Special Educational Needs

6.1 At **our school** we teach Mathematics to all children and we keep them with their year groups as much as possible. Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Mathematics teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against age related expectations.

6.2 When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, differentiation – so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

Intervention through School Action and School Action Plus will lead to the creation of a Support Plan for children with special educational needs. The Support Plan may include, as appropriate, specific targets relating to Mathematics. These children may have a timetabled 1 – 1 with an adult weekly or in a small group. Support Plans are set and reviewed termly and involve the pupil. Use of support materials such as 'Ready to Progress' may be used/referenced.

Weekly Clinic Sessions are offered to all three classes – children can ask for time with an adult to help with current learning and understanding or homework challenges.

We enable pupils to have access to the full range of activities involved in learning Mathematics. Where children are to participate in activities outside the classroom, for example, a maths trail, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

7 Disadvantaged

7.1 The school is committed to raising achievement for disadvantaged young people. Teachers and teaching assistants will ensure an equitable approach and give more support, guidance and challenge to our disadvantaged in all our lessons.

8 Assessment and Recording

8.1 We assess children's work in Mathematics from three aspects (short-term, medium-term and long-term). We make short-term assessments which we use to help us adjust our daily plans. These short-term assessments are closely matched to the teaching objectives. As part of the Big Maths Scheme there are weekly CLIC, LEARN IT and SAFE tests. The children are aware of their progress and each week aim to 'beat their score.' Key stage 2 are also tested weekly on their knowledge of the times-tables, in-line with expectations.

8.2 We carry out medium-term assessments to measure progress against the key objectives set out in the National Curriculum (and Early Learning Goals within Foundation Stage), and to help us plan the next series of work. Each half-term pupils in both Key Stages make their own goals / targets and review their progress.

8.3 We make termly assessments using formal NTS assessments; these give an age standardised score for pupils and can identify areas of weakness for individual pupils e.g. measures. We make a summary of each child's progress before discussing it with parents and we pass this information on to the next teacher,

so that she can plan for the new school year. We use the national tests for children in Year 2 and Year 6, plus tests for children at the end of Years R (Summer), 1, 2, 3, 4 and 5 with standardised scores (e.g. NTS). We also make annual assessments of children's progress measured against age-related expectations and report to parents.

9 Resources

9.1 There is a wide range of resources to support the teaching of Mathematics across the school. All classrooms have number lines and a wide range of appropriate small apparatus such as Base 10, numicon, place value counters rekenreks. Calculators, iPads and visual aids are also available. A range of software is available to support work with the computers or interactive whiteboards. Occasionally children do data and shape activities on the maths mat or with chalk etc outside. Teachers have access to Big Maths resources e.g. PowerPoints, and the handbook.

10 Monitoring and Review

10.1 Monitoring of the standards of children's work and of the quality of teaching in Mathematics is the responsibility of the Mathematics subject leader, Bianca Cousin. 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 makes regular summaries, evaluates strengths and weaknesses in the subject and suggests areas for further improvement. The Mathematics subject leader needs to regularly review samples of children's work and undertake lesson observations of Mathematics teaching across the school. A named member of the school's governing body, Jane Morris is briefed to understand the teaching of Mathematics. This governor meets with the subject leader to review progress.

Approved – Spring 2025

Next review – Spring 2027