



Castlemorton CE Primary Mathematics Policy

Mathematics equips pupils with a unique set of skills to help them to make understand and change the world. These skills include logical reasoning, problem solving and the ability to think in abstract ways. It provides a language of numbers, symbols and shapes to solve practical problems in everyday life. It is with this in mind that we endeavour to ensure that children develop a healthy and enthusiastic attitude that remains with them.

We follow the National Curriculum which states:

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 for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Intent:

Our aims in teaching mathematics are:

- To enable pupils to become fluent and flexible in the fundamentals of mathematics and be able to recall and apply their knowledge rapidly and accurately.
 - To develop their reasoning and resilience to apply mathematical skills with confidence when solving problems and completing investigations.
- To enable pupils to express themselves and their ideas using the language of mathematics.
- To develop pupils understanding by using practical resources to support learning and teaching.
- To be able to use and apply mathematical skills in other curriculum subjects and in real contexts.
- To develop positive and confident attitudes towards mathematics.

At Castlemorton we support a mastery approach to mathematics which is a set of principles and beliefs to develop a secure and deep understanding of mathematical concepts through a 'simple' sequence of learning episodes, each one focused on one key point.

Teaching Mathematics:

The teaching staff at Castlemorton C of E Primary are encouraged to be flexible and adaptable to the needs of their class. In Mathematics, the focus is on teaching for mastery. White Rose Maths is the main resource used to identify teaching points whilst teaching resources from providers such as NRICH, NCETM and Maths No Problem will be used to support teaching and learning. There is a focus on ensuring that pupils are exposed to concrete resources and pictorial and abstract representations of number. Lessons are carefully crafted to ensure fluency and to develop reasoning/problem solving skills. All classes are using a common power point template to teach mathematics which ensures that the design of each lesson is similar from Reception to Year 6.

Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems rather than accelerating through new content.

ICT is used by teachers and pupils to support teaching and learning in mathematics.

Lesson Design

A key aim is to keep the class working together, spending more time on teaching topics and providing opportunities for all pupils to develop the depth and rigour they need to make secure and sustained progress over time. There is a common approach to lesson design across the school.

Traditional formal methods of setting out computations are taught and go hand in hand with teaching efficient methods built on good understanding. Children are expected to learn their times tables and practice at home really supports work in class.

The children will be given opportunities to learn key skills in practical ways that encourage active learning, fluency, reasoning and problem solving. Children are encouraged to learn from their mistakes and have a 'can do' attitude.

At key milestones during their primary years children will take part in statutory assessments and tests. In key stage one the tests are used to support teacher assessment and take place in the month of May. In year 4 pupils will take a timetable test and at the end of Key Stage Two, (Year 6) the pupils will take their national Standard Assessment Tests (SATs).

Curriculum Planning

Medium Term Planning in the Foundation Stage, teachers use Development Matters for support in implementing the Mathematics area of learning and development, which is outlined in the statutory framework for the EYFS. In Key Stage 1 and 2, planning follows the National Curriculum 2014 and the Programmes of Study, which organise the key objectives of mathematics into the following areas:

- Number and Place Value
- Addition and Subtraction
- Multiplication and Division, Fractions and Decimals

- Measures
- Geometry

Assessment, recording and reporting

Assessment is regarded as an integral part of teaching and learning. It is the responsibility of the Class Teacher to assess all pupils in their class. Day-to-day assessments Assessment may be based upon observation, skilful questioning, informal testing, thorough marking and the evaluation of the pupil's work.

Periodic assessments

Staff at Castlemorton use the Arbor tracking system. This enables teachers to monitor the progress of every child in their class against each National Curriculum key objective or development statement and Early Learning Goal. The records of achievement for each year group are updated every term and inform intervention needs. In addition, children in Years 2, 3, 4, 5 and 6 will take a Progress in Understanding Mathematics Assessment (PUMA) test three times a year. These are standardised mathematics tests that are used alongside formative assessment to give a more accurate picture of attainment and progress within the subject.

Transitional assessments

When pupils enter the Foundation Stage, formal and informal baseline assessments take place and transitional documents from pre-school settings are considered. Periodic assessment occurs frequently and judgements are made against the development statements and Early Learning Goals for Mathematics.

In Year 2 and Year 6, national assessments are carried out towards the end of the school year to review pupils' progress and attainment.

Special Educational Needs

Children who have an 'EHCP' may have specific outcomes which are addressed through mathematics lessons. Additional support is provided by the Class Teacher or Teaching Assistant