



Castleton C of E Primary School

Mathematics Policy

**Reviewed and Updated
January 2023**

Introduction

Through Mathematics children learn how to make sense of the world around them, by developing their ability to use number, calculate, reason and solve problems. Mathematics helps children to understand relationships and patterns in both number and space in their everyday lives. The Mathematics curriculum should provide breadth, be relevant and accessible to all children. It should encourage a deeper understanding in all children through a process of enquiry and investigation.

Aims for Staff and Children

- To ensure all staff, children, parents/carers and Governors are aware of the aims for learning and teaching Mathematics at Castleton C of E Primary School and that these are consistently applied.
- To promote a positive attitude towards the learning and use of Mathematics by making it an enjoyable, active and collaborative experience.
- To increase confidence of all pupils when working with numbers and the number system.
- To foster a belief in every child, that with an open growth mindset, great progress in Mathematics can be achieved. •
- To promote the ability to solve problems through connecting ideas/making links, decision making and applying their mathematical skills in a range of contexts, including other subjects such as Science and Geography.
- To promote mathematical reasoning by following a line of enquiry, developing an argument and making justifications using mathematical language.
- To develop an enjoyment of learning through practical activity, investigation, exploration and discussion.
- To develop confidence and competence with numbers and the number system.

Aims for Parents and Carers

- To be understanding and supportive of our aims in teaching Mathematics.
- To attend and contribute to Parent Consultation Meetings.
- To support their children with Mathematics homework, including the importance of learning their times tables off by heart.

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- To praise their children for the good things that they do in Mathematics.
- To communicate and work with school whenever further support is needed to develop their children's mathematical skills and understanding.
- To make mathematics part of children's everyday lives.

Aims for Governors

- The governors will liaise with the Head Teacher over all aspects of Mathematics at Castleton C of E Primary School.
- The governing body will discuss, review and endorse agreed strategies and will discuss the Head's report on the working of this policy.
- The governors will liaise with the Head Teacher to arrange for a regular programme of staff development. This will include training for support staff as well as teachers when required.

Aims for the Headteacher

- It is the responsibility of the Head Teacher to ensure that the LA, staff, governing body, parents and other appropriate agencies are informed about our Mathematics policy, and that the policy is implemented effectively.
- The Head Teacher monitors this policy on a regular basis and reports to governors, when requested, on the effectiveness of the policy.

The National Curriculum for Mathematics

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The 2014 National Curriculum 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, geography, design technology 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.

Planning The National Curriculum is organised into the following strands:

- Number and place value
- Addition and subtraction
- Multiplication and division
- Fractions
- Measurements

- Geometry
- Statistics (Year 2 onwards)
- Algebra and Ratio and Proportion are not included until year 6

The above strands are broken down into statutory objectives for each year group. These can be found in more detail in the National Curriculum for Mathematics (2014). By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programmes of study, as set out in the National Curriculum.

Planning the Mathematics Curriculum

Castleton C of E Primary, uses the White Rose Maths Mastery curriculum as the core resource. The long term planning has been adapted to meet the needs of our mixed age classes, and to incorporate the 'best fit' approach for our flexi school community.

Class teachers select the objectives to be taught within each term, producing a comprehensive medium term plan, that then feeds into the class teachers short term planning for individual weeks. Our range of pupil needs is such that individual planning is often necessary in order to ensure our maths curriculum is fully inclusive.

Organisation

Classes are organised into three mixed age class; Nursery and Reception, Year 1 and 2, Years 3,4,5 and 6. There is flexibility in these classes that allows for movement of pupils between year groups.

Teaching Assistants work closely with class teachers, providing support and additional teaching for small groups of targeted children. In the Foundation Stage, children receive adult led whole class and group mathematics teaching as well as daily independent child initiated activities. They are given opportunities to work on mathematical skills both indoors and outdoors. Activities relate to the Number and Shape, Space and Measures strands of the Early Years Foundation Stage Curriculum and also make links to others areas of the Curriculum. A wide range of manipulatives and provided to encourage and embed concrete skills.

In KS1 and KS2 children have a daily mathematics lesson between 45 and 60 minutes. Opportunities for children to use and apply their mathematical knowledge, skills and vocabulary in different contexts are also planned.

A typical lesson in KS1 and KS2 consists of a number of components but the timing and organisation of each component may vary over a sequence of lessons.

- Oral / mental calculation This involves rehearsing, sharpening and developing mental and oral mathematical skills.
- Main teaching and independent learning episodes This involves both teaching input and pupil activities with a balance between whole class, grouped, paired and individual work.
- Plenaries and mini plenaries These are a vital part of every lesson. They involve working with the whole class or small groups to identify and deal with misconceptions, summarising key facts and ideas, making links to other work, evaluating learning and progress and discussing next steps.
- Following the mastery approach, children work on the same tasks and engage in common discussions.

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- Differentiation is achieved through choice of manipulatives and visual representations, and skilful questioning. Difficulties and misconceptions are identified through regular formative assessments and addressed with quick intervention.

Assessment

Teachers plan lessons that aim for all children to master the key skills. Therefore, ongoing assessment is an important component of the curriculum.

Class teachers are responsible for assessing individual's attainment in mathematics in line with the school's Assessment Policy. Assessments are either formative (day to day assessments that take place continually and inform planning) or summative (formal assessments that take place at the end of a strand, term or year). Assessments include:

Work samples e.g. books

Observation notes e.g. from guided sessions

Questioning e.g. recall of facts 1:1, asking a child to explain how they solved a problem

Photographs

Task and Tests e.g. teacher generated, from online resources and end of Key Stage National Curriculum tests
Feedback from pupils e.g. responses in books, verbal feedback.

In the Foundation Stage teachers continually update the children's 'Learning Journeys' and also keep more formal records directly relating to the learning objectives and Early learning Goals.

Throughout the school an individual child's attainment is regularly updated on the Sheffield STATS tracker, to monitor progress against age appropriate expectations. At the end of KS1 and 2 children complete National Curriculum Tests and results are reported to parents.

Homework

Homework is set regularly to memorise KIRFs (Key Instant Recall Facts), practise a strategy, play a game or collect information. These activities should be varied, frequent, short and focused so that they motivate children and foster study skills. Children should be given some feedback on their progress by going over their homework at the earliest opportunity, by marking it altogether or by setting a short quiz, going over any difficulties encountered.

SEND Provision

If a child has a specific difficulty relating to Mathematics that is identified during our 'Pupil Progress' meetings, they are given extra time or additional support with a teacher or teaching assistant to address their specific needs and to support and develop their mathematical knowledge and skills accordingly.

More Able Provision

If a child has demonstrated that they have a deep understanding of an age appropriate concept and is excelling in an area of mathematics, they are given further opportunities to develop fluency, reasoning and problem solving and apply higher order thinking skills through carefully planned tasks.

Intervention

In Foundation, KS1 and KS2 if a child is identified as having a difficulty or misconception with an age related expectation they are immediately targeted through individual or small group work. These interventions provide short-term targeted support using precise questioning and scaffolding to enable learners to reach their full potential.

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Equal Opportunities

We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multicultural aspects of mathematics e.g. Islamic patterns in RE, estimating and measuring in design technology and collecting, collating and interpreting data in science and geography. All children have equal access to the curriculum regardless of their gender.

Signed: HeadteacherDate:.....

Signed: Chair of GovernorsDate:.....

Policy updated January 2023

Policy Review January 2025

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