

# Great Coates Primary School

## Maths Policy



Headteacher	Andrea Norman
Deputy Headteacher	Lynn Deans
Maths Leader	Callum Baxter

Written: September 2020

Review Date: September 2021

## **Vision**

We live in a complex, high technology society where a wide range of mathematical concepts and skills is needed, both in work and non-work situations. Maths is a core subject, in the National Curriculum. Mathematical understanding is also required in most other National Curriculum subjects for e.g. Science, Technology, Geography.

At Great Coates, we aim to always promote our school's values (Resilience, Reflection, Pride, Respect and Aspiration) through Maths lessons to help children become independent learners and challenge themselves taking learning into their own hands.

We want all children to enjoy Mathematics and to experience success in the subject, with the ability to reason mathematically at all levels.

## **Objectives**

Our objectives in the teaching of mathematics are:

- to promote enjoyment of 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 explore features of shape and space, and develop measuring skills in a range of contexts;
- to help children understand the importance of mathematics in everyday life.

## **Teaching and Learning**

At Great Coates, teachers use a variety of different teaching and learning styles which all stem around promoting children's independence in Maths as well as providing them with challenge at all levels no matter what the ability level a pupil is working at. During our daily lessons, we encourage children to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources, such as number lines, number squares, digit cards and small apparatus to support their work. Mathematical vocabulary is displayed in all classrooms.

Children must be able to apply their mathematical knowledge to reasoning problems and at Great Coates we use a variety of sources which enable children to access these reasoning challenges: Twinkl, Target Maths, White Rose Maths.

We encourage children to be as independent as possible and promoting this through teaching in different ways e.g. providing a marking station for children to mark their work giving instant feedback so they can either go back and make corrections or move onto another challenge.

## **Planning**

Mathematics is a core subject in the National Curriculum, and we use the new National Curriculum for Mathematics (2014) as the basis of our mathematics programme. We are committed to ensuring that all pupils achieve mastery in the key concepts of mathematics, appropriate for their age group, in order that they make genuine progress and avoid gaps in their understanding that provide barriers to learning as they move through education.

We carry out the curriculum planning in mathematics in three phases (long-term, medium-term and short-term). The National Curriculum for Mathematics gives a detailed outline of what we teach in the long term, while our yearly teaching programme identifies the key objectives we teach to in each year.

Our medium-term mathematics plans, which are adopted from the Framework, and give details of the main teaching objectives for each term, define what we teach. They ensure an appropriate balance and distribution of work across each term. These plans are kept and reviewed by the subject leader and on staffshared for all teachers to access.

It is the class teacher who completes the weekly plans for the teaching of mathematics, within their class teams. These weekly plans list the specific learning questions and steps to success for each lesson, and give details of how the lessons are to be taught. Teachers work in teams during weekly planning meetings to ensure coverage is being taught across all classes at the same pace and whether specific learning areas need more focus and time spent on them.

We plan the activities in mathematics so that they build on the children's prior learning. While we give children of all abilities the opportunity to develop their skills, knowledge and understanding, we also plan progression into the scheme of work, so that there is an increasing challenge for the children as they move up through the schools. Teachers use White Rose Maths during planning to help with the pitch of questioning and to help children of all areas access reasoning problems. Focus Maths is also used to help pitch mastery and greater depth questions to challenge children of all levels. Effective strategies for calculation are in place to ensure understanding and progression throughout the school.

## **Assessment for learning**

Teachers will assess children's work in mathematics from three aspects (long-term, medium-term and short-term).

### **Short-Term**

Short-term assessments help teachers to adjust daily plans. These short-term assessments are closely matched to the learning question.

### **Medium-Term**

Medium-term assessments measure progress against the key objectives, and help us plan the next unit of work. These assessments will be used to make judgements on children's expected targets and are discussed with the Standards Leader during pupil progress meetings.

### **Long-Term**

We make long-term assessments towards the end of the school year, and we use these to assess progress against school and national targets. We can then set targets for the next school year and make a summary of each child's progress before discussing it with parents.

We pass this information on to the next teacher at the end of the year, so that s/he can plan for the new school year. We make the long-term assessments with the help of end-of-year tests and teacher assessments. We use the national tests for children in Year 6 and Year 2. An assessment of children's progress is measured against the level descriptions of the National Curriculum.

This information is used to track the progress of pupils over time by the standards leader.

### **Peer and Self-Assessment**

Children are encouraged to use both self-assessment and peer assessment in lessons to take learning into their own hands and identify their own mistakes and misconceptions. Marking stations are used in UKS2 for children to self-assess and make corrections where necessary through the use of a purple pen. Pink pen is used for peer assessment.

## **The Foundation Stage**

We teach mathematics to our reception children two mornings a week with daily practise of number recognition and counting through continuous provision. Through assessment for learning we plan according to their learning needs. 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 from birth to five. We give all the children ample opportunity through child initiated and adult led activities in order to develop their understanding of number, measurement, pattern, shape and space, through varied activities that allow them to enjoy, explore, practice and talk confidently about mathematics. A variety of objects such as counters, beanbags, coloured bead etc are used in hands-on practical teaching both in both the inside and outside learning areas.

## **Contribution of mathematics to teaching in other curriculum areas**

### ***English***

The teaching of mathematics contributes significantly to children's understanding of English in our schools by actively promoting the skills of reading, writing, speaking and listening. For example, in mathematics lessons, we expect children to read and interpret problems, in order to identify the mathematics involved. They are also improving their command of English when they explain and convince others during pit stop and plenary sessions. In English lessons, too, maths can contribute: younger children enjoy stories and rhyme that rely on counting and sequencing, while older children encounter mathematical vocabulary, graphs and charts when reading non-fiction texts.

### ***Personal, social and health education (PSHE) and citizenship***

Mathematics contributes to the teaching of PSHE and citizenship. The work that children do outside their normal lessons encourages independent study and helps them to become increasingly responsible for their own learning. The planned activities that children do within the classroom encourage them to work together and respect each other's views. Children are presented with real-life situations in their mathematics work on the spending of money.

### ***Spiritual, moral, social and cultural development***

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results. The study of famous mathematicians around the world contributes to the cultural development of our children.

### **Mathematics and ICT**

Information and communication technology enhances the teaching of mathematics

significantly, because ICT is particularly useful for mathematical tasks. It also offers ways of impacting on learning which are not possible with conventional methods. Teachers can use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. Younger children use ICT to communicate results with appropriate mathematical symbols. Older children use it to produce graphs and tables when explaining their results, or when creating repeating patterns, such as tessellations. When working on control, children can use both standard and non-standard measures for distance and angle. They can also use simulations to identify patterns and relationships.

## **Mathematics and inclusion**

At our schools, we teach mathematics to all children, whatever their ability and individual needs. Mathematics forms part of the schools' 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 good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents and those learning English as an additional language, and we take all reasonable steps to achieve this.

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. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels. 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 an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to mathematics.

### **Resources**

All classrooms have a variety of mathematical equipment to aid children with mathematical vocabulary on display in all classrooms. Further resources, are stored centrally in the maths cupboard.

### **Monitoring and review**

The coordination and planning of the mathematics curriculum are the responsibility of the subject leader, who also:

- supports colleagues in their teaching, by keeping informed about current developments in mathematics, and by providing a strategic lead and direction for this subject;
- gives the head teacher an annual summary report in which s/he evaluates the strengths and weaknesses in mathematics, and indicates areas for further improvement;
- uses specially allocated regular management time to review evidence of the children's work, and to observe mathematics lessons across the schools

- collects data termly

## **COVI-19 Changes to the Teaching and Assessment of Maths**

Due to the prolonged absence of pupils in schools because of Covid-19, the Maths Leader has implemented changes to help prioritise learning and accelerate progress.

- KPIs have been highly using a RAG rated system (Green= essential, Yellow= desirable and Red= less desirable)
- The teaching of Number has taken priority over Geometry
- Teachers will adjust their medium term plans to take into consideration the RAG rated system of KPIS
- Classes can no longer set for Maths across Year groups due to bubbles
- Teachers will need to monitor progress using the new Progress Transition Grids alongside their Transition Matrices
- These Progress Grids will be used to help teachers identify pupils struggling to make progress and meet the expected level that they were working at before
- Teachers will need to use these grids to set intervention groups

Signed:

\_\_\_\_\_ (Head Teacher)

\_\_\_\_\_ (Chair of Governors)