Cranford Primary School
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Mathematics Policy

Date: Autumn 2025

At Cranford Primary School, we value every pupil and the contribution they have to make. As a result, we aim to ensure that every child achieves success and that all are included and enabled to develop their skills in accordance with their level of ability.

Rationale

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. (National Curriculum 2014)

The National Curriculum for Mathematics (2014) describes in detail what pupils must learn in each year group. Combined with our knowledge organisers and planning this ensures continuity, progression and high expectations for attainment in mathematics.

It is vital that a positive attitude towards mathematics is encouraged amongst all of our pupils in order to foster confidence and achievement in a skill that is essential in our society. At Cranford Primary School, we use the National Curriculum for Mathematics (2014) as the basis of our mathematics programme. We are committed to ensuring that all pupils master 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. Assessment for Learning, an emphasis on investigation, problem solving, the development of mathematical thinking and development of teacher subject knowledge are therefore essential components of the Cranford approach to this subject.

Principles

TEACHING & LEARNING:

Intent:
As stated in the national curriculum, Mathematics is both a key skill within school and a life skill to be utilised throughout every person's day to day experiences, therefore we want our Mathematics curriculum to ensure it is fully inclusive so that it: ● Develops children's knowledge and understanding of Mathematical concepts whilst enabling them to practise and hone skills and methods; ● Enables them to think critically and communicate their understanding; ● Gives them opportunities to apply learnt mathematical skills in different contexts across the curriculum; ● Provides opportunities to develop problem solving skills useful for maths and across the curriculum. In addition to the above, pupils need to: ● Be prepared for applying their skills effectively in everyday life situations, in their future learning and in the workplace. ● Have the building blocks in place and to provide a solid foundation to lead onto secondary, further and higher education.

Implementation:

- Build children's confidence and self esteem through differentiated tasks and challenge tasks
- Develop children's independence through effective task setting
- Allow all children to experience regular success
- Contextualise mathematics
- Use a range of representations and structures to aid visualisation of key concepts (Using the principles of 'Maths Mastery')
- Encourage children to select independently resources to help them
- Challenge children of all abilities
- Encourage children to enjoy mathematics by making lessons engaging and linking learning to real life experiences
- Develop a child's understanding of mathematical language
- Learn from teachers, peers and their own mistakes
- Allow children to ask questions as well as answer them
- Allow pupils to apply their mathematical knowledge to different contexts
- Learn maths skills in a cross curricular way, where possible

Impact:

Our pupils should:

- Have a well-developed sense of the size of a number and where it fits into the number system (place value)
- Know by heart number facts such as number bonds, multiplication tables, doubles and halves
- Use what they know by heart to figure out numbers mentally
- Calculate accurately and efficiently, both mentally and in writing
- Draw on a range of calculation strategies
- Make sense of number problems, including non-routine/'real' problems and identify the operations needed to solve them
- Explain their methods and reasoning, using correct mathematical terms and representations
- Judge whether their answers are reasonable and have strategies for checking them where necessary
- Suggest suitable units for measuring and make sensible estimates of measurements
- Explain and make predictions from the numbers in graphs, diagrams, charts and tables
- Develop spatial awareness and an understanding of the properties of 2D and 3D shapes

To provide adequate time for developing mathematics, maths is taught daily and discretely. However, application of skills are linked across the curriculum where appropriate.

PLANNING:

Mathematics is a core subject in the National Curriculum and we use the objectives from this to support planning and to assess children's progress.

Staff use long term planning to ensure coverage of all areas of the National Curriculum and medium/short term planning to differentiate objectives according to the set which they teach. It is the class teacher who completes the weekly plans for the teaching of mathematics. These weekly plans list the specific learning objectives for each lesson and give details of how the lessons are to be taught.

- Planning begins from a thorough understanding of children's needs gathered through effective and rigorous assessment and tracking, combined with high expectations and ambition for all children to achieve
- Within short term planning, clear success criteria for each learning objective taught should be created – demonstrating the progression needed to reach and exceed the objective. This will enable the class teacher to follow a clear and systematic teaching sequence, where input and activities are differentiated by considering which parts of the success criteria individual children are ready for
- Where children are working significantly above or below the expectation the majority of the class need to work towards, and where extending this by expanding the success criteria seem inappropriate, objectives from higher or lower age-groups will need to be planned and taught
- Planning, where possible, should involve real life contexts for maths, where children are problem solving with a purpose in mind
- There should be opportunities for children to apply their mathematical knowledge within lessons through 'mastery' style questions and problems.
- Class teachers should regularly plan for opportunities for children to apply their skills to different problems within maths lessons and across the curriculum. This will also allow children to revisit, practise and consolidate different areas of maths and apply them within different contexts.

ASSESSMENT:

Assessment for learning should occur throughout the entire maths lesson, enabling teachers/teaching assistants to adapt their teaching/input to meet the children's needs. This feedback should be incisive and regular.

- On a daily basis, children's work should be marked against the learning objective and success criteria, giving them a sense of success – all in-line with the marking policy
- Children should also have Maths targets in their books, which should be reviewed by pupils themselves to assess how well they feel they are doing
- Future lesson design should depend on class success evaluated through marking and observations made during the lesson
- Assessment of pupil work and progress is ongoing by the class teacher and informs future planning. Teachers mark work in mathematics in line with the school marking policy
- Summative assessments are made at least once per half term in order to provide further understanding of the level a child is working at and to inform a more rounded judgement of their abilities. For termly assessments, White Rose assessment tests are used in all year groups from Year 1- Year 6. Each half term, class teachers create their own assessments to assess pupil understanding.
- Tracking is used in order that children who are not making good progress over time can be targeted for support in one form or another. What that support will and how intensive, depends upon the child's needs and it may be a simple strategy within whole class teaching that is needed. Where further support is deemed necessary, children can access interventions (Catch up programme, teacher led interventions and other TA interventions).

a) **Formative Assessment (AfL)**

Assessment is an integral and continuous part of the teaching and learning process at Cranford and much of it is done informally as part of each teacher's day to day work. Teachers integrate the use of formative assessment strategies such as: effective questioning, clear learning objectives, the use of success criteria, effective feedback and response in their teaching and marking and observing children participating in activities. Findings from these types of assessment are used to inform future planning

b) **Summative Assessment**

More formal methods are used to determine the levels of achievement of children at the end of each half term. During assessment weeks, unit tests and teacher judgements contribute to an accurate summative assessment for each child. This assessment will be recorded, monitored and tracked on Target Tracker.

EYFS:

Mathematics within the EYFS is developed through purposeful, play based experiences and will be represented throughout the indoor and outdoor provision. The learning will be based on pupils' interests and current themes and will focus on the expectations from Development Matters / Early Years Outcomes. Mathematical understanding can be developed through stories, songs, games, imaginative play, child initiated learning and structured teaching. As pupils progress, they will be encouraged to record their mathematical thinking in a more formal way.

DISPLAYS & RESOURCES

- In the classrooms, there should be a Maths working wall which children should be able to refer to during their learning
- Where and when appropriate, there should be mathematical resources accessible to children, which should help consolidate learning. Particularly concrete and pictorial apparatus to support children to grasp concepts e.g. dienes, numicon, place value counters/ cards etc.
- Mathematical vocabulary should be displayed so that children use this in the communication of their understanding
- There should be maths work on display in classrooms and/or other areas of the school in order to encourage a positive attitude and enthusiasm towards mathematics for all groups of children
- Cranford has not purchased a particular scheme to follow but favours the Maths on Target textbooks in KS2, Mastery resources created by the Maths Hub and White Rose resources to help deliver the requirements of the National Curriculum across the school.

Role of the Subject Leader

The role of the Mathematics subject leaders(s) is to:

- Ensure teachers understand the requirements of the National Curriculum and helps them to plan lesson
- Lead by example by setting high standards in their own teaching
- Prepares, organises and leads CPD and joint professional development
- Works with the SENCO and SLT
- Observe colleagues with a view to identifying the support they need and to share good practise
- Discuss regularly with the Headteacher and the mathematics governor the progress of implementing National Curriculum for Mathematics in school
- Monitor and evaluate mathematics provision in the school by conducting regular work scrutiny, learning walks and assessment data analysis
- Contribute to the Headteachers' Report to Governors

Parents and Homework

We recognise that parents make a significant difference to children's progress in Maths and encourage this partnership. Children will receive weekly Maths homework from their teachers, as well as be advised to practise times tables and number facts on a daily basis.

Pupils from Year 2-6 are also provided with access to Times Tables Rockstars to practise their times tables at home.