



Mathematics at the Oratory R.C. Primary School



This document gives a snapshot of the school's approach towards maths and outlines how maths is taught in our school.

INTENTION

At the Oratory we aim to:

- Develop a positive perception towards maths to allow all to succeed.
- Develop a mathematical understanding by teaching for mastery through a 'concrete, pictorial, abstract' approach.
- Develop children's understanding in maths so they can apply their learning to reasoning and problem solving challenges.
- Develop mathematical skills which children can use in the wider community.
- Build around a child-centred lesson design that models and embeds a growth mind-set approach to maths and focuses on helping all children to build a deep understanding of maths concepts. $+$ $-$ \div \times
- Develop a range of efficient mental calculation strategies for all four operations.
- Develop skills to be able to quickly recall basic facts and multiplications.

IMPLEMENTATION

Planning

The Oratory Mathematics Curriculum is designed around meeting the National Curriculum Programme of Study. From Reception to Year 6 we have integrated a 'Maths Mastery' syllabus called Power Maths following the 'concrete-pictorial-abstract' (CPA) approach. Weekly plans show the outline of the key lesson objectives, along with supporting documents by the NCETM, providing details on how the lesson is taught. It is in partnership with White Rose Maths progressions and schemes of learning. We teach through units of work which are designed into the Maths long-term and medium-term planning for each year group.

Resources

Heavily focusing each lesson around a CPA approach allows children to understand the key concepts and represent findings in a variety of ways. It allows children to embed their knowledge and understanding, using a rich mathematical language before moving onto the abstract context. Resources should be removed at an appropriate stage where conceptual understanding is secure, so they are not used procedurally during calculations.

Lesson Structure

Lessons are designed around a 5 part structure, with a Power Up section to start each lesson. This allows children the chance to take small steps to embed the learning. Each lesson has 'strengthening understanding' and 'going deeper' activities. This provides an enriched approach that cleverly combines interactive teaching tools, rich and quality textbooks and practice books.

Discover

Share

Think together

Practice

Reflect

Differentiation

The Maths Mastery approach allows all children to be exposed to the same rich tasks throughout the lesson. In KS2 each class has the same structure to their question layout. Extra questions are added to each section to allow children the chance to deepen their learning. In KS1 children are provided with the same exercises with reasoning and problem solving questions as challenges. At the Oratory we expect all children to be challenged with their learning and have equal opportunities to progress.

Children work in mixed ability pairing. They discuss, share and explore through collaborative work. Scaffolding and extra support is provided throughout the lesson by Class Teachers and Teaching Assistants.

Feedback and Marking

Books are marked daily, either by children or an adult during the lesson or at the end of the day. Correct mathematical questions should be marked with a dot put next to questions which need another attempt at. Teachers provide verbal feedback across the school and written feedback to extend learning where appropriate for Year 2 to Year 6. Children should respond to corrections and feedback in green pen.

Interventions

Interventions occur across the school, providing small group and 1:1 support when needed. Targeted intervention groups are delivered on a weekly basis and same day interventions take place. Same day interventions are used to support children's development of topics covered within the daily teaching.

Maths Meeting

Maths meetings are undertaken 3 times a week to allow children to revisit learnt concepts. Questions are split into quadrants. Each quadrant will have a range of mathematical questions based on topics covered last term, last year, last week and current learning. Children work independently before visited by the teacher. Chants, rhymes, number tennis and counting sticks are also used within MM in KS1 and lower KS2.

Assessment

All teachers use formative assessment on a daily basis to assess each child's progression. Termly Assessments take place with each year group undertaking the Power Maths Assessments. In conjunction with termly assessments, end of unit checks are undertaken. Assessments will be used to inform interventions.

Home Learning Policy for Parents

Timetable Rockstars (KS2) – weekly timetables checks set by class teachers.

Numberbots (KS1) – Year 2, Year 1 and Reception tasks set at the teacher's discretion.

Weekly maths homework set for children from Year 2 to Year 6. Year 1 from February half term. Homework will be used to enhance children's knowledge of topics being covered in class. Homework can be set through paper copies or digital software (Rockstars / Numberbots).

References

NCETM (2020) <https://www.ncetm.org.uk/teaching-for-mastery/>

Power Maths (2020) <https://www.activelearnprimary.co.uk/login?c=0>

White Rose (2020) <https://whiterosemaths.com/>