



ROKEBY PRIMARY SCHOOL

PART OF STOWE VALLEY MULTI ACADEMY TRUST

Mathematics at Rokeby Primary School

Subject Leader and Author: Vicky Allan

Contents

1	Subject Statement
3	Assessment
3	Planning and Resources
4	Teaching and Learning in the Early Years Foundation Stage (EYFS)
5	Teaching and Learning in Key Stage One and Key Stage Two
6	Role of the Subject Leader
7	Parents/Carers

1. Subject statement

Intent

At Rokeby, we will ensure that our mathematics curriculum promotes a range of skills and knowledge and that the skills and knowledge are embedded, and progression is evident, within our curriculum. All children are given the opportunity to access a broad and balanced mathematics curriculum.

To become able and confident mathematicians, we want our children to:

- Become fluent in the fundamentals of mathematics.
- Be able to reason mathematically.
- Be able to solve problems by applying their mathematics.
- Be able to recognise the importance of mathematics in the wider world.
- Be able to use their mathematical skills and knowledge confidently in their lives, in a range of different situations and contexts.
- Enjoy mathematics and to have confidence to experience success in the subject.
- Develop their curiosity about the subject, as well as an appreciation of the power and importance of mathematics.

Implementation

Our whole school mathematics curriculum is underpinned with the following principles and features:

- All teaching staff (teachers and teaching assistants) reinforce an expectation that all children can achieve high standards in mathematics.
- Most of the children progress through the curriculum content at the same pace. Differentiation is achieved by emphasising deep knowledge and through individual support and intervention.
- Teaching is underpinned by methodical curriculum design and supported by carefully crafted lessons and resources to foster deep conceptual and procedural knowledge.
- Practice and consolidation are crucial. Carefully designed variation within this builds fluency and understanding of underlying mathematical concepts.
- All teaching staff use precise and targeted questions in class to test conceptual and procedural knowledge and assess children regularly to identify those requiring intervention, so that all children can succeed.
- Teachers promote key mathematical vocabulary and this vocabulary shows progression through the year groups and key stages.

At Rokeby, to ensure consistency across the whole school, we use the DfE approved 'Power Maths' scheme. This is fully aligned with the White Rose Maths scheme. Our mathematics leader and English leader were part of the Maths Hubs Teacher Research Group (TRG) and can develop and deliver whole school continuous professional development, to ensure that staff at all levels understand the pedagogy of the approach.

'Power Maths is structured to help you teach concepts for longer and to go deeper. For each year group, the UK curriculum strands have been broken down into core concepts. These are taught in blocks of lessons so you can give sufficient time to developing a deep and sustainable understanding of core maths concepts. Each concept has also been broken down into small steps (lessons). Each lesson and concept builds on prior knowledge to help children build a robust and deep understanding of the concept before moving on.'

(source: www.pearsonglobalschools.com accessed on 01/04/2020)

Impact

Children will become confident and keen mathematicians with natural curiosity and wonder.

All children will feel like they can access mathematics as the structure of Power Maths ensures that all children experience challenge and success by developing a growth mindset. Regular and accurate assessment will ensure that children make age appropriate progress and we have a high standard of mathematics across the school.

Our children will 'master' mathematics.

2. Assessment

Assessment for learning:

- The structure of our lessons allows many opportunities for teaching staff to pick up on misconceptions. The children are given the opportunity for guided practice, during the 'Think Together' part of the lesson and they can then apply the skills, knowledge and skills from the 'Discover and Share' section of the lesson.
- As per NCETM guidelines, all lessons are taught in small steps as 'small steps are easier to take.' (www.ncetm.org.uk accessed 01/04/20) Learning in small steps also allows teaching staff opportunity to pick up misconceptions, as soon as they arise.
- Children receive feedback, during lessons, both orally and through written feedback, as per our Marking and Feedback Policy.

Assessment of Learning:

- Children receive feedback in their books, through written feedback, as per our Marking and Feedback Policy (appendix 1).
- Teachers carry out ongoing assessment and this is recorded on each child's individual maths tracking grid.
- We follow the PiXL calendar of assessment and children sit assessments at different points of the year. This data is then analysed to inform both lesson planning and therapy groups.
- Each half term, teachers report children's current attainment on OTrack, based on the current year group that each child is working within, using the following indicators: Developing, Developing+, Meeting, Meeting+, Exceeding and Exceeding+.

3. Planning and Resources

We use resources in all our lessons and follow the 'concrete, pictorial, abstract' (CPA) model. All classes have their own bank of resources and there is also a wider range of resources that is accessible to the whole school. As part of our subscription to Power Maths, all staff have access to interactive teaching tools which further support the CPA model. Power Maths also clearly sets out which resources will support the teaching and learning in each lesson (appendix 2). We use high-quality, DfE endorsed textbooks and workbooks to further develop learning within the classroom or within smaller group work.

**This overview runs on collaboration with our Calculation Policy-appendix 3*

4. Teaching and Learning in the Early Years Foundation Stage (EYFS)

Children in Nursery have a short daily mathematics teaching session, during which time they begin to develop their understanding of simple mathematical concepts through using physical resources, pictorial resources, songs, games and role-play.

In Reception, children have a three-part lesson.

This consists of:

- Whole class oral and mental starter
- Whole class main teaching
- Focus activity for a small group of children

Throughout the week a child will work with teaching staff to complete an activity. Reception also have access to Power Maths journals, it is at the teacher's discretion, to decide when and where these journals are appropriate. In both Nursery and Reception, the independent activities in the maths link to the focus for the week. In addition to these planned independent activities, children also can self-select maths resources to consolidate their learning during child-initiated activities. Regular observations and assessments help to ensure that children that need additional intervention to consolidate their mathematical understanding are identified and supported by appropriate interventions.

5. Teaching and Learning- Key Stage One and Key Stage Two

Power Maths lessons usually last one hour in Key Stage One and Key Stage Two. The teaching and learning follow this structure:

'Power Up!'	This is a whole-class starter and supports with fluency in all number facts.
'Discover and Share'	The children have a hands-on problem to discuss and provides opportunity for the class teacher to target their questioning. Children share their ideas and reason with one another.
'Think Together'	The class discuss the problem and consider solutions and methods that can be used.
'Practice'	This part of the lesson is completed independently (support can be given, if needed by groups or individuals). It builds fluency and a deeper understanding of the concepts from the lesson. The children are also given the opportunity to complete a challenge question, to give a greater level of depth.
'Reflect'	During this final part of the lesson, the children are given the opportunity to review, reason and reflect on their learning.

6. The Role of the Subject Leader

The main role of the mathematics subject leader is to develop, promote and enhance an interest and understanding of the subject in both children and staff.

The subject leader will:

- Promote mathematics through high-quality mathematics displays around the school.
- Support Continuous Professional Development (CPD) for all teaching staff.
- Carry out learning walks and lesson observations and work with teaching staff to identify strengths and weaknesses.
- Carry out monitoring of children's books.
- Monitor progress through analysis whole school data- PiXL and O Track.
- Organise, audit and purchase maths resources.
- Through the TRG, keep up to date on current developments within the teaching and learning of mathematics and disseminate information to teaching staff.
- Attend network meetings with mathematics leaders from other schools in the local consortium and within the Stowe Valley Multi Academy Trust.
- Develop opportunities for parents/carers to become more involved in Maths education.

7. Parents/ Carers

We aim to involve our parents and carers in many different parts of school life. We involve our parents and carers in maths by:

- Sending a maths learning card to work on at home, number bonds, times tables and then number facts, relevant to the level that the child is currently working on.
- All children have their own account, set up by the maths leader on www.timestables.co.uk and their performance can be tracked by their teacher.
- A half-term and end of year report is sent home, indicating current attainment and progress in mathematics.
- Parents evenings are held twice a year and give parents/carers the opportunity to discuss their child's progress.
- Parents/Carers can communicate with their child's teacher on Class Dojo, if they need any support with their child's learning in mathematics.