



Euxton Church of England Primary School
In our Christian family, we all SHINE in the light of Jesus.



Subject Leader Report – Mathematics

SUBJECT LEADER(S): Mairi Ash and Kath Smith

INTENTION - Subject Overview:

At Euxton C.E. Primary School we recognise the pivotal role of mathematics within the overall context of the curriculum. Mathematics is based on patterns and relationships from the world around us. We appreciate its contribution to arts, sciences, finance, health and leisure. Our school wishes to give all pupils the **confidence** to make sense of the world in which they live; by understanding and having the ability to **think** and **communicate** in the language of mathematics. Our children love to **collaborate, share** their **knowledge** and understanding of Maths and be able to **SHINE** and celebrate their achievements. Therefore, our children will develop the mathematical foundations along with their **Christian** and **Great British Values** to be **successful contributors** to society. We aim to provide children with opportunities to become fluent in the fundamentals of mathematics, through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

IMPLEMENTATION – Planning:

At Euxton C.E. Primary school we teach a mastery approach to Mathematics, meaning that we provide our pupils with a range of opportunities to develop a deep and lasting **understanding** of mathematical procedures and concepts. Pupils are taught through whole-class interactive teaching, where the focus is on all pupils working **together** on the same lesson content at the same time, ensuring that all can master concepts before moving to the next part of the curriculum sequence. We ensure that no pupil is left behind and all pupils are able to **shine** and fulfil their potential in this subject. Significant time is spent developing deep **knowledge** of the key ideas that are needed to underpin future learning. We do this by emphasising connections within mathematical concepts, so that pupils develop a deep learning that can be sustained. Mathematics is often taught as a separate subject, yet it contributes to many areas of the Primary curriculum. At Euxton C.E. Primary School we aim to identify these opportunities at the planning stage giving children ways to use maths in real contexts and providing reinforcement and **enrichment** through additional provision for numeracy in topic lessons - to creative learning settings ranging from Maths Days, Football Maths sessions and practical maths learning in the outdoor environment. Teachers develop pupils' numeracy and mathematical reasoning in all subjects so that they understand and appreciate the importance of mathematics. Pupils are taught to apply arithmetic fluently to problems, understand and use measures, make estimates and check their work. Pupils are taught to apply their mathematics to both routine and non-routine problems, including breaking down more complex problems into a series of simpler steps. Children in the EYFS are taught the Early Learning Goals for Mathematics from the 'Statutory framework for the Early Years Foundation Stage,' which has been effective since September 2021. Planning for this comes from the Lancashire Maths Team's documents; Sequences of Learning and Learning and Progression Steps. From these documents our team are able to produce a detailed and coherent maths curriculum which is exciting and accessible for all children. Years 1, 2, 3, 4 and 5 are following the Red Rose Mastery scheme written by the Lancashire Maths Team which incorporates the objectives of the national curriculum within a mastery approach. In Y6 there is an individualised sequence of mastery learning which is supported by the use of LBQ (Learning by Questions) so that all children are working at the right level of pace and challenge.

IMPLEMENTATION- SEN Provision:

Engagement

To ensure that children with SEN are able to fully engage with the maths curriculum, the following measures are taken at Euxton CE Primary School:

- Teachers provide a multi-sensory approach to the maths curriculum through the use of practical equipment (e.g. base 10 equipment, multi-link cubes etc.) visual stimulus, interactive lessons, experiential learning and dual-coding key learning.
- Positive relationships are maintained between children and staff – Teaching Assistant and teacher support are provided.
- Teachers ensure the right environment for learning maths, for example children sitting where they can hear well, have a clear view of the board and don't have distractions.

Access

At Euxton CE Primary School, we follow the five-a-day principle in maths lessons so that children with SEN are able to fully access the maths curriculum. Such principles include:

- Explicit instruction
- Cognitive and metacognitive strategies
- Scaffolding
- Flexible grouping- mixed ability groupings, targeted interventions that meet the individual needs of children, effective use of Teaching Assistants
- Use of technology

IMPLEMENTATION AND IMPACT – Assessment, Monitoring and Evidence:

Teachers continuously apply assessment for learning. If a pupil fails to grasp a concept or procedure, this is identified quickly and early intervention ensures the pupil is ready to move forward with the whole class in the next lesson. Assessment is also ongoing via the use of children data (termly), book sampling (twice yearly), observations (once year), portfolio evidence (twice yearly), informal chats to pupils, walk-throughs and displays (ongoing) and teacher evaluations of pupil performance against strands of maths (yearly). This ensures standards are being met at the end of EYFS, KS1 and KS2 in relation to the mathematics Early Learning Goal and the mathematics National Curriculum programme of study. All forms of intervention enable a greater proportion of children to be on track to meet year group expectations or in the case of those working significantly below expectations to make better than expected progress. All children in Year 2 and Key Stage 2 have weekly times table tests. The Multiplication Tables Check (MTC) is taken by children at the end of Year 4 (Summer term). Children in Key Stage 1 and 2 will sit statutory end of key stage SAT tests during the summer term. PIVATS and LAPs are used to support progression of SEND children to identify where children are developmentally, with regard to maths, and at times, we need to plan additional materials to meet individual needs. Any child entitled to Pupil Premium, will access additional support as needed. At Euxton C.E. Primary School standards are high as demonstrated by end of year assessments and Key Stage results. Teacher judgements are internally moderated and based on current best practice using national exemplification where appropriate. The senior leadership team and members of the Governing body review the curriculum and the impact of any improvement initiatives.

IMPLEMENTATION AND IMPACT – Enrichment opportunities:

Our Mathematics curriculum is enhanced through the use of our outdoor learning environment, school grounds and spinney area. This allows children to practically explore mathematical concepts in order to develop their concrete understanding. Reception class have created an outdoor Maths Shed which is full of exciting natural resources to enhance and engage the foundations of mathematical learning. Our cross curricular approach and enhancement opportunities enable children to develop their mathematical skills within these activities. At Euxton C.E. Primary School we endeavour to maintain a love of collaboration in Maths activities to promote discussion and vocabulary. We look forward to sharing a Celebration of Maths – World Maths Day March 2024. KS1 and KS2 children will benefit from active maths and problem solving using real life contexts provided by the Football Development Programme.

EVALUATING IMPACT ON LEARNING SEPTEMBER 2022-2023

| INTENT | IMPLEMENTATION | IMPACT |
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| Launch Red Rose Maths Mastery scheme of work for Y1-Y4. | Twilight staff training by LCC Maths consultant to model mastery approach to teaching and how to use materials. Scheme will be used for this academic year and impact will be monitored throughout the year. Each half term staff meeting time will focus on reviewing use of materials and discuss and questions. Teachers will support each other by being paired up across key stages e.g. Y1 and Y4. | Teachers in Y1-6 have successfully followed the Red Rose Mastery scheme throughout the academic year. Half- termly meetings have enabled staff to discuss any queries. Adaptations have been made to the length of teacher input sessions outlined by the scheme. The mastery approach has made a positive impact on data. |
| Audit resources and materials to support mastery approach in all year groups. | Staff to assess what resources are needed in order to deliver Red Rose scheme of maths for their year group to ensure they have the correct materials to support learning. Let subject coordinators know if there are any issues to support locating necessary materials. | Resources and materials were audited. Staff in each year group have the necessary materials and equipment to successfully deliver the Red Rose scheme. Each class now has maths boxes that are readily available to support children's learning. |
| Maths focus on compare, measures and time to develop deeper understanding and confidence in these areas. | Time to be planned for more practise and explore these areas in more depth as these strands have been a focus of addressing gaps in learning following COVID disruption. Staff aware to plan time to address issues and take learning in small steps in ensure a deep level of understanding. | Maths analysis shows progress in these areas. Teachers have extended maths lessons on the topics outlined. Analysis shows this is still an area to focus on and that further time may be required to consolidate learning. |

FOCUS FOR LEARNING, SEPTEMBER 2023-2024

| INTENT | IMPLEMENTATION | IMPACT |
|---|---|--------|
| <p>Fluency - to ensure that all children are more confident and accurate with recall.</p> | <p>To launch the fluency programme across KS2 and continue to embed the Mastering Number programme delivered by the EYFS, Y1 and Y2 teachers.</p> <p>Discrete fluency sessions (10- 15 minutes duration) will be incorporated into timetables by teachers in each year group. EYFS/KS1 will deliver dedicated fluency sessions during the afternoon periods. KS2 teachers will timetable fluency sessions during the first lesson. Maths Jotters to be introduced for Years 3-6 to record fluency work.</p> <ul style="list-style-type: none"> • The Mastering Number programme will continue to be delivered by the EYFS, Y1 and Y2 teachers. • Years 3 and 4 - Flashback 4 to be delivered by the Y3 and Year 4 teachers (see the White Rose scheme). • Years 5 and 6 - Fluent in 5 to be delivered by the Y5 and Y6 teachers. | |
| <p>To further develop the mathematical language used by children in each year group.</p> | <p>Teachers to continue to share STEM sentences with the children in daily maths sessions and to display the sentences clearly on maths working walls. Children to be actively encouraged to use the STEM sentences when discussing maths work with others. NCETM resources to be used by teachers to complement the Red Rose scheme and LBQ programme when composing STEM sentences.</p> | |
| <p>To embed metacognition strategies in maths learning.</p> | <p>Teachers to use metacognitive reflection activities at the start and end of each maths lesson. Teachers will investigate what the pupil already knows about the topic and what strategies they are aware of for solving this type of activity. Questioning techniques in the classroom are to be used, such as:</p> <ul style="list-style-type: none"> • What strategies do you use when problem solving? • What do you notice? • What things should you pay attention to when solving questions like these? • Where have you seen these types of questions in real life before? <p>Teachers to model their own thinking when approaching mathematical problems to demonstrate metacognitive strategies.</p> | |

'I can do all things through Christ who strengthens me,' Philipians 4:13