



MATHEMATICS SUBJECT GUIDANCE

RATIFYING COMMITTEE(S)	Educational Standards & Achievements Committee
DATE RATIFIED	Spring 2020
NEXT REVIEW DATE	Spring 2022

Maths Subject Guidance Document

1. Mathematical Intent

Mathematics is essential to everyday life. A high-quality maths education has been shown to provide people with the necessary skills to understand the world, solve problems and reason mathematically. It is for these reasons that Ravenbank Primary School intends to:

- Give our children access to a high quality maths curriculum which is supportive, challenging and enjoyable.
- Support each child in acquiring a secure foundation of mathematical concepts.
- Promote fluency in the fundamentals of mathematics so children have the ability to recall and apply knowledge rapidly and accurately.
- Provide the children with an opportunity to learn and use mathematics so they can make connections and solve problems in the world outside of the classroom.
- Encourage children to take risks by demonstrating confidence when using maths.
- Develop independent learners who possess inquisitive minds and have an interest in self-improvement when using mathematical concepts.

2. Mathematical Implementation

Ravenbank Primary School is forward thinking in its approach to implementing a high quality maths curriculum. There is a secure understanding of the subject area which is implemented in nine core areas:

2.1 Management

The curriculum is led by an experienced member of staff, who had worked on the maths improvement team prior to being made 'Maths Lead'. The member of staff attends frequently training and meetings with other maths leaders across the local authority to discuss all areas of the maths subject area and current issues. The maths lead is responsible for feeding back this information to other teaching staff members and providing professional development materials to wider staff members in the school.

Professional development training for the whole maths subject has recently been provided to teaching staff to enhance and develop the teaching quality of maths at Ravenbank Primary School. Professional development materials were also provided, and continue to be updated every few months through the Maths Lead, to keep staff up to date with current developments with respect to the teaching of maths concepts.

2.2 Planning

The subject of maths follows the National Curriculum in England for primary schools at Ravenbank Primary School. This informs the long-term planning, teaching, learning and assessment of mathematics at the school.

Medium term planning is carried out by the teaching staff which includes yearly overviews. This is updated annually in response to collected data which monitors teaching and learning.

Short-term plans include daily lessons with clear learning objectives, resources which support the children in moving through the concrete-pictorial-abstract methods in maths, and a mastery approach to teaching and learning whereby all children are supported in understanding the learning objective before moving onto the next taught concept.

The wider use of maths teaching and learning is also carried out in other subjects as well as through homework activities to encourage parents/carers to take an active role in their child's learning of maths.

2.3 Teaching

Quality-first teaching is provided on a daily basis in the teaching of maths. This is carried out by teachers who understand where children are in their maths learning 'journey' through the use of prior learning, assessments and maths talks. Teachers also understand where the children in their year group need to be at the end of the academic year using on-going and formative assessment methods. In order to aid this progression of learning, teachers and teaching assistants use a range of strategies to promote independence, mastery and high expectations of all children.

2.4 Learning

Quality-first learning takes place within all of our maths lessons. This is shown by the children of Ravenbank Primary School who work together in maths lessons to ensure they are ready to learn, feel safe and secure in their environment, are supported by effective classroom routines, have a clear understanding of the high expectations required of them, are confident in their learning, feel ready to be challenged and are independent thinkers and learners.

2.4.1 Inclusion

We are committed to the provision of equal opportunities across all subjects, including mathematics, regardless of gender, race and ability and so the curriculum provides parity for all groups of pupils. By matching the challenge of the task to the ability and experience of each child, our maths lessons are inclusive for all. We do this by differentiating tasks for different groups or individuals, using additional adults to support learning, and setting tasks which can have differing outcomes depending on the understanding the child has.

2.4.2 EYFS

Within the Foundation Stage, the children receive daily teaching and learning of maths concepts in an active environment where the children can experience a broad and play-based introduction to mathematical vocabulary and concepts. The children are encouraged to be curious, make links and look for patterns in their learning as well as in the wider areas of the classroom, including the outdoor environment. The children are introduced to number work using concrete resources to support their understanding of visual representations as they become more confident learners.

2.4.3 Learning Outside the Classroom

Mathematics is not just about numbers, symbols and shapes. It allows children to understand changes in the wider world and solve problems by reasoning with information they have

experienced in their lives. The learning that takes place in the classroom can often be the first place children learn the skills which are needed when applying them to real life situations, and for this reason, learning outside the classroom helps provide a good transition when moving between the safe environment of the classroom and the 'riskier' real life world. Our children are given opportunities to learn outside the classroom to develop their understanding as well as to develop their confidence and promote inquisitive minds.

2.4.4 Technology

The use of technology within the maths curriculum provides additional opportunities for learners to see and interact with mathematical concepts. The children can explore and make discoveries using games, interactions and digital tools to enhance the teaching and learning of maths. Our children have access to a range of applications using laptops and iPads to support and extend the learning which takes place in the classroom.

2.5 Assessment

Formative and on-going assessment takes place after each lesson to inform future planning of teaching and learning in maths lessons. Progress and effort is celebrated with the children to support learning and encourage high standards of learning.

Summative assessment takes place in the Autumn and Summer terms through NFER tests. This data is reported to the senior management team, governors and parent/carers. The data is tracked by the school throughout a child's time at Ravenbank Primary School to inform the progress being made by each child.

The Maths Lead teacher undertakes book 'trawls' to establish consistency and high standards of teaching and learning are being carried out across the school. The children's work is also moderated by other teaching professionals at 'cluster meetings' with schools situated within the local area of Lymm.

Mathematical Impact

The subject of maths is highly valued amongst children and adults at Ravenbank Primary School. The maths curriculum is successfully implemented throughout the school and is designed to provide the children with the necessary skills needed to understanding the world, solve problems and reason mathematically. Each year, the progress that children make can be measured using assessments which take into account the knowledge, understanding and skills they gain.

Our children take pride in the maths work they produce and this creates confident, creative and active learners who are able to take the knowledge from the classroom and apply it to the real life world. Because of this, many children are able to work towards their fullest potential, with the vast majority of children working at the expected standard within their year group in addition to the many children who are also working at greater depth.