Slaley First School

Maths Policy

Nurturing Ambitious Individuals

Policy Name: Maths Policy
Approved Date: July 2022
Review Date: July 2023

Contents

Maths Policy

Our School Vision

We believe that a happy child is a successful one. Our vision is to develop well rounded, ambitious and responsible individuals who aspire to achieve their full potential. We will do this by providing a nurturing, happy, safe, and supportive learning environment in which everyone is equal and all achievements are celebrated. We are committed to the families we serve and the community to which we belong.

Curriculum Intent

At Slaley First School, the intent of our maths curriculum is to offer a broad, balanced, rich and vibrant curriculum that ensures achievement for all learners, no matter their starting point.

In line with our overall intent, teaching specific vocabulary is a fundamental part of our maths curriculum. Terminology is taught and built up over time as the children progress through the curriculum. Children are often challenged to apply their use of this vocabulary in written work, where expectations match those of the English curriculum.

Our curriculum is set out in small incremental steps in order to minimise the scaffolding needed. Research by the Education Endowment Foundation indicates that it is just as important
to avoid over-scaffolding as it is to ensure all pupils are adequately supported. It also indicates that it is important to take account of the prior knowledge that children bring to lessons and to help them to build upon this understanding. Our curriculum is therefore designed to build upon prior knowledge and skills. It is self-reviewing in the form of flashback four where knowledge gained is consolidated and built upon to ensure behavioural change to long term memory to support retention and recall.

Our Mathematics curriculum is designed with the intent that each child, from EYFS to year 4, will become fluent confident and competent in the basics of mathematics, developing their ability to calculate, to reason and to solve problems through the learning of mental and formal written strategies and applying these skills to increasingly complex problems. Pupils will develop their understanding and the ability to recall and apply knowledge rapidly and accurately. This will be embedded through their time at school through varied fluency, problem solving and reasoning. Through this, children will be able to reason mathematically and solve problems by applying their mathematics systematically to a variety of real-life problems with increasing sophistication. All planning is in line with the expectations set out in the National Curriculum (2014).

Our Curriculum Design

Our maths curriculum is designed to allow each pupil to:

- Reason logically
- Represent calculations visually
- Think critically
- Confidently tackle questions
- Recall key facts and strategies
- Use practical resources to make learning concrete

Curriculum Implementation

The school's long and medium term planning is used by teachers, This drives the journey of mathematics for every year group ensuring that all learning is sequential and self-reveiewing.
We promote enjoyment and enthusiasm for learning through concrete/practical lessons, exploration and questioning. We also encourage confidence and competence with numbers and the number system where children relish challenges and understand the importance of learning from mistakes made in the process. We develop the range of mental calculations needed and encourage their use in a range of contexts, We also develop the ability to solve challenging problems through systematic learning, decision-making and reasoning in a range of contexts, including

real life problems. We encourage the children to discuss and present their work using mathematical language, diagrams, jottings and charts and teach the importance of mathematics in everyday life and how our mathematics curriculum can help a developing cultural capital.

Early Years Foundation Stage

In EYFS, practitioners will ensure that there will be time dedicated for children to learn mathematics throughout the school day. This may be integrated through different contexts including storybooks, puzzles, songs rhymes and games. Similarly to the rest of the school, manipulatives and resources will be used to ensure learning is concrete and accessible for all children and to encourage a discussion regarding mathematics. Learning will build on what the children already know and high quality, targeted support will be used in all teaching, including that of mathematics.

Key Stage 1 & Key Stage 2

Children in both Key Stage 1 and Key Stage 2 will be provided with a daily lesson for mathematics and the lessons will include varied fluency, problem solving and reasoning. A variety of teaching and learning styles will be used and a range of resources will aim to develop children's knowledge, skills and understanding in mathematics. During our lessons , we will encourage children to ask as well as answer mathematical questions to challenge their thinking and allow them to reason mathematically. Learning opportunities for all children will be matched to ability, this will be achieved through a range of strategies, differentiated group learning opportunities, working interdependently to support each other through peer learning and challenging children with open-ended problems or games. We also use classroom assistants to support children across all ability groups and to ensure that learning can be adapted to meet the needs of all our children. In addition, mathematics will play a part in other subjects, where children will be able to develop and apply their mathematical skills across our whole curriculum. For example, collecting and presenting data in computing, science and geography.

Our Children's Charter

Our children are entitled to a world-class curriculum which enables them to:

- Feel confident and successful in their learning
- Have the attitude that although learning is often tricky, mistakes are necessary for learning to happen.
- Enjoy learning and experience 'the magic of maths'.
- Have a voice and be able to choose how they wish to learn – choosing resources and strategies they feel are most appropriate.
- Understand that Mathematics is relevant to everyday living and a lifelong skill, by solving problems that are set in a real life context.

- To develop critical thinking and the confidence to question ideas in order to deepen their understanding.
- To become interdependent as well as independent learners.

Inclusion

At Slaley First School all children should be given the tools to progress in maths. All teaching staff should plan lessons that are inclusive to all pupils needs and celebrate individual expression. We strive to create a learning environment where every child feels included, valued and encouraged. We strive to meet the needs of those pupils with special educational needs, those with disabilities and those with special gifts and talents,

Curriculum Impact

The impact of the curriculum design will lead to progress for all children, The curriculum, including the calculation policy, will enable teachers to consistently plan and deliver lessons of the highest standard, matched to children's individual needs. Children will have a clear sense of number and will confidently be able to apply this to different situations in order to solve problems that have a real-life relevance. Children's outcomes will therefore be of the highest quality. Children will be: confident, resilient, self-motivated and independent. They will value the mistakes they make and understand that we only learn by reviewing mistakes with a thirst for challenge and the mind-set that enables them to believe that they can succeed with effort.

Assessment and Recording

Teachers assess children's work in maths in three different phases. There are ongoing assessments made as part of every lesson to help teachers adjust their daily plans. Teachers match these short-term assessments closely to the teaching objectives. Medium-term assessments are also used to measure progress against the key objectives and to help teachers plan for the next unit of work. Mind maps are used to assess the children's knowledge at the beginning of each unit and these are repeated at the end of a unit. Half termly pupil progress meetings discuss individual progress. Teachers make long-term assessments towards the end of the school year and they use these to assess progress against school and national age-related expectations. With the help of these long-term assessments, teachers are able to set targets for the next school year and summarise the progress of each child before discussing it with the child's parents. Subsequent teachers also use previous long-term assessments as the basis for planning work for the new school year.

Links to other Policies

Equality information
Policy Teaching and

Learning Policy Feedback
and Marking Policy
Assessment policy
SEND policy