



St Peter's Church of England
Primary School

MATHEMATICS POLICY

June 2021

Our Christian Vision

**As a Christian family at St Peter's School, we create a unique place of learning, nurturing the gifts that God in His awesomeness has given us. We encourage every child and prepare them for life's journey, inspiring them to fulfil their potential, their dreams and their aspirations.
Sowing the seeds of tomorrow.**

(Matthew 13:1-23)

Aims

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives.

We aim to provide a curriculum that:

- Promotes enjoyment and enthusiasm for learning through practical activity, exploration and discussion.
- Values the progression from concrete, to visual to abstract learning in maths
- Develops logical thinking and reasoning skills through a natural curiosity and investigative approach.
- Develops a thorough knowledge and understanding of numbers and the number system.
- Develops the ability to solve problems through decision-making and reasoning in a range of contexts.
- Develops a practical understanding of the ways in which information is gathered and presented.
- Explores features of shape and space, and develop measuring skills in a range of contexts.
- Understands the importance of mathematical skills in everyday life.

Teaching and learning

Children are taught using a variety of ways according to the age of the child and the objectives for the year group. Daily lessons incorporate opportunities for children to develop their mental arithmetic knowledge, written calculation methods together with opportunities for speaking and listening. Children are encouraged to answer and ask questions and use a wide range of practical resources such as number lines, number squares, digit cards and small apparatus. ICT is also used during lessons to enhance learning through the use of Interactive white boards and interactive mathematical software programmes. Both in and out of school, children are encouraged to use "Times Tables Rockstars" to improve their knowledge of Times tables facts. Children will be taught in small groups or as a whole class with a range of differentiated activities, open-ended problems and games. Individual and group support is also provided by teaching assistants.

Mathematics curriculum planning

Mathematics is a core subject in the National Curriculum. The new draft Framework for Mathematics provides detailed information of what skills and strategies needs to be taught together with details of the key objectives for each year.

We carry out our curriculum planning following the Lancashire Scheme for Mathematics in two phases (long-term and short term). The long-term planning give details of the main teaching objectives for

each term. The class teacher is responsible for writing the weekly and daily plans for lessons (short-term plans). These plans list the specific learning objective of each lesson and give details of how the lesson will be taught, including information about differentiation and resourcing. To monitor attainment and progression and the senior management team look at examples of Mathematics planning and complete a scrutiny of children's books on a regular basis.

Early Years Foundation Stage

Teachers of Reception children plan following the requirements of the 'Early Years Foundation Stage: Mathematics. "Numberblocks" is used to ensure a deep understanding of the concept of number at this early stage. Children are given ample opportunity to develop their understanding of number, measurement, pattern, shape and space through varied activities including stories, songs, games and imaginative play, that allow them to enjoy, explore, practise and talk confidently about mathematics. During the foundation stage year, reception teachers aim to draw the elements of a daily mathematics lesson together so that by the time the children move into Year 1 they are more familiar with this delivery.

Inclusion

At our school we teach Mathematics to all children, whatever their ability. Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Maths teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels. Teachers use continual assessment to inform future planning and targets. Opportunities are found for more able children to extend their understanding. Intervention programmes will be used with children who are finding it more difficult to access the Maths curriculum where appropriate.

Interventions

Children's ROPs take into account the targets set for individual children and teachers keep these objectives in mind when planning work. Teaching assistants provide further support for groups or individual children and work collaboratively with the class teacher. The use of concrete apparatus and visual images is considered the most important part of this process. Teachers' plans not only provide activities to support children who find mathematics challenging but also appropriate challenges for children who are learning at a greater depth in mathematics.

Assessment, Recording and Reporting

We regularly assess children's work in mathematics to adjust our daily plans. These formative assessments are closely matched to the key learning objectives. We make termly assessments to measure progress against key objectives, using Target Tracker statements. This is used to inform future planning and intervention. We use national tests for children in year 2 and 6, and termly NFER tests in years 3, 4 and 5. We also complete an NFER test in Autumn term for Year 2 and an NFER test in summer term for Year 1. Foundation stage children are assessed against the foundation stage profile.

Homework

We provide parents and carers with opportunities to support their children's learning at home. Homework activities are sent home on a weekly basis to reinforce concepts taught in school. Homework activities are presented in a way that will encourage children to work with parents, giving opportunities to practise skills and mathematical language. There is an emphasis on the use of maths in real life including measure.

Contributions of mathematics to teaching in other curriculum areas

Mathematics can be seen in all areas of the curriculum and is taught in a cross curricular way throughout the school. Particular numerical and statistical links are made with Science, History, PE and Geography. Mathematics actively promotes the skills of reading, writing, speaking and listening. The children explain and present their work to others during plenary sessions. They encounter mathematical vocabulary, graphs and charts when using non-fiction texts.

Equal Opportunities and Special Educational Needs

The mathematics curriculum should be delivered in a flexible way, which gives equal access to all children regardless of gender, race or ability. Teachers provide differentiated learning opportunities matched to the needs of children. Children with special educational needs in mathematics have specific targets set on their Records of Progress (ROPs). Children who are accessing greater depth in Mathematics are provided with differentiated work according to their learning needs.

Resources

There is a range of practical and visual resources to support the teaching of mathematics across the school. All classrooms have an appropriate range of apparatus to support the use of models and images within lessons. There is also a "Measure Toolbox" shared within each key stage to promote the regular use of practical work in measure.

Monitoring and review

It is the responsibility of the Mathematics leader to monitor the standards of children's work and the quality of teaching in Mathematics. All areas of the mathematics curriculum should be engaging and taught in a way that promotes an interest and enjoyment of Mathematics. The Mathematics leader is also responsible for supporting colleagues in the teaching of Mathematics, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school.

We continually review and monitor practice to ensure thorough coverage and at least good teaching standards are maintained to meet the needs of all our children and to ensure that they are being stretched and challenged at all levels.

This takes place in the following ways:

- Annual audit and review of subject by leader to inform the School Development Plan.
- Analysis of progress
- Attendance at the Mathematics leaders' network and training meetings to link with Primary Mathematics Advisors and other Mathematics leaders - to keep informed about the subject locally and nationally including new initiatives.

- Leading staff meetings focusing on Mathematics areas where new national or local practice and initiatives will improve current practice and also on areas highlighted in School Development Plan.
- Discussion at staff meetings to ensure consistency of approach, standards and expectations.
- Scrutiny of work, sampling of records etc. from monitored children.
- Collection of work samples to demonstrate achievement, range of activities, special events.
- Whole school moderation of Mathematics standards.
- Scrutiny of weekly planning.
- Observation of Mathematics lessons which are identified through monitoring and follow the mathematics action plan
- 'Learning Walks' to focus on a particular aspect of Mathematics.
- Feedback to staff on areas of strengths and areas of development.

Leadership and Accountability

The head teacher ensures that staff, respond to both local and national initiatives and directives appropriately. Internal and external mechanisms regarding quality include: observations, data analysis, consultations, action planning and target setting and policy review. Monitoring takes place through the Senior Leadership Team (SLT), Governing Body, 1-1's/appraisals, performance management and through Ofsted inspections. We review our practice and provision annually with key staff linking areas to our School Development Plan (SDP).

Continuous Professional Development

We are committed to all staff accessing Continuous Professional Development. Individual training will be chosen or identified based on an individual's interests or remits, linked to appraisal or performance management and in response to Ofsted inspections and national/local initiatives.