Trinity St. Peter's

Church of England Primary School

where children shine

Mathematics Policy

Rationale

At Trinity St. Peter's, we take pride in the teachings of our unique school values that underpin all learning. We promote the British fundamental values where British law, democracy and a mutual respect and tolerance for those of other faiths, cultures and beliefs is embedded through all areas of the curriculum.

Introduction

At Trinity St Peter's Primary School we believe that Mathematics equips pupils with a powerful set of tools to understand and change the world around them. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways. Mathematics should be enjoyable, stimulating and taught using a creative, cross-curricular approach where possible. We aim to provide the pupils with a mathematics curriculum, which will produce individuals who are numerate, creative, independent, inquisitive, enquiring and confident. We also aim to produce a stimulating environment and adequate resources so that pupils can develop their mathematical skills to their full potential.

Mathematics is important to everyday life. We endeavour to ensure that children develop an enthusiasm towards mathematics and a skill set that will stay with them throughout life.

The National Curriculum for Mathematics (2014) and Development Matters (2021) document describe in detail what pupils must learn in each year group, beginning in Nursery. Combined with our Calculation Guidance Policy – as well as documentation for progression of mathematical skills – these all ensure continuity, progression and high expectations for attainment in mathematics.

This policy should be read in line with SEND, More Able, Global Citizenship, Homework, Assessment including Marking and Feedback policies.

Spirituality

Spiritual education involves the awe and wonder of mathematics that is shown to children. Mathematics can be used to explain the world and the mathematical patterns that occur in nature such as the symmetry of snowflake patterns or the stripes of a tiger. There is a sense of wonder in the exactness of mathematics as well as a sense of personal achievement in solving problems. The development of deeper thinking and questioning the way in which the world works promots the the spiritual growth of students. In maths lessons pupils are always encouraged to delve deeper into their understanding of mathematics and how it relates to the world around them.

Aims

To develop:

- A positive attitude towards mathematics and confidence when using and applying mathematical skills;
- A strong understanding of number, including inverse operations in order to check their work;
- An ability to think creatively, critically, clearly and logically;
- An understanding of mathematics through enquiry, practical experience and discovery
- To develop attitudes of curiosity, perseverance and accuracy and to provoke fascination, 'moments of awe and wonder' and enjoyment for maths;
- An awareness of the uses of mathematics in the world beyond the classroom in solving problems they meet in everyday life, and in understanding things they see;

- An ability to talk confidently in mathematical terms, explaining and discussing mathematical problems and concepts;
- An appreciation of mathematical pattern both in shape and number and its application to relationships.

Teaching and Learning

In planning and guiding what children learn in EYFS, teachers reflect on the different rates at which children are developing and adjust their practice appropriately, referring to the Characteristics of Effective Teaching and Learning.

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

In EYFS, planning is taken from White Rose Maths. Other schemes of work / lesson plans are also used to supplement the children's learning when necessary, including Twinkl, NCETM and Master the Curriculum. Teachers also plan for children's interest and fascination as when is appropriate. This planning is modified in line with the school's 4C model so that the school's vision and values and the characteristics of effective learning are embedded in classroom practice.

In Nursery, Maths is taught explicitly 4 days a week, following the objectives listed above. In Reception, Maths is taught explicitly 4 days a week using the White Rose Maths scheme of work. In addition, daily singing of number rhymes takes place and teachers find ways of teaching mathematical skills during daily routines, e.g. counting how many children are in each day and adding that number to a Maths play. Maths learning is also ongoing through child initiated play and continuous provision.

White Rose Maths' coverage and progression grids are used to guide KS1 and KS2 teachers with their planning. In addition, KS1 and KS2 teachers also have access to the Lancashire Maths Scheme of Work, Liverpool Maths Planning and Active Maths resources to support them with lesson ideas. This ensures that a range of learning opportunities are provided for the children, including: outdoor learning, practical activities, problem solving and games. Just like in EYFS, plans are personalised and modified in line with the school's 4C Thinking Model so that the school's vision and values and the characteristics of effective learning are embedded in classroom practice. The children's mathematical thinking is challenged daily in lessons through our 4C questioning. Our Kagan practices also ensure that there is plenty of opportunity for collaboration and peer assessment within daily mathematical learning.

Mathematical vocabulary is developed from Nursery to Year 6 through the use of the school's STAR Vocabulary approach.

Children develop a love of mathematical learning through this personalised and modified planning. Our class blogs and Twitter feeds evidence the range of opportunities provided for the children by their teachers:

- Outdoor learning and practical activities takes place frequently;

- Children's access to 1:1 electronic devices in KS2 allow for independent learning to take place daily through iOs applications such as SATs Companion, 1-Minute WRM and MathSeeds, as well as Sumdog and Times Tables Rockstars. Websites such as TopMarks are also used regularly and children know how to access these independently.
- The use of 1:1 devices in KS2 also mean that children can take part games and quizzes hosted online, such as Kahoot and Blooklet.
- Games are used regularly to consolidate learning and promote a love of learning;
- Classes enter national competitions, including Sumdog and Times Tables Rockstars. Class competitions also take place within individual classes, against other classes in school and against classes in other local schools (e.g. Year 6 'Maths Maze' at Formby High School).
- Learning is relevant and classes take part in Maths lessons linked to national and global events happening at the time. These include Maths-specific events such as National Numeracy Day and World Multiplication Day, as well as non-Maths related events such as Easter, Comic Relief and European Languages Day.
- Events such as National Careers Week teach the children the importance of Maths in the wider world and how they will be able to apply the skills they learn now later on in life.

'More Able' Pupils

Class teachers will ensure individual needs are met and that challenging targets are set and reviewed regularly. (See More Able Policy)

Special Educational Needs

Pupils who are identified as having additional learning needs will access mathematical learning through Quality First Teaching resources and additional strategies as outlined in the child's SEN Support Plan.

Global Citizenship

We wish to provide our pupils with the information and skills needed to become aware of the links between the local and the global, and enable them to become 'caring global citizens of the world' as stated in our school vision statement. This will involve challenging and supporting all our pupils to become critical thinkers, to develop independent learning skills and to learn about their rights and accept responsibilities. Global Citizen enriches Maths by enabling pupils to:

- provide opportunities to illustrate mathematical concepts and processes by means of global issues and data;
- use and apply mathematics to real-world problems and data (for example, international development data);
- provide opportunities to consider the influence of different cultures on mathematics;
- develop critical thinking around use, presentation and manipulation of data.

Staff also supplement learning through local, national and global events relating to Maths, for example My Money Week and National Numeracy Day

"Global Citizenship is assessed by the Subject Leader and Assistant Headteacher using the Oxfam progression grid, in line with the Global Citizenship policy.'

Legal Requirement

The school mathematics policy draws together the principles of the National Curriculum 2014, as well as the Foundation Stage Curriculum.

Role of Parents

At Trinity St. Peter's Primary School we are committed to working in partnership with parents. We believe that parents have a huge influence in setting aspirations and expectations for their children, and in stimulating their learning.

Parent meetings are currently held half-termly where teachers discuss progress and areas of development in Maths. Parents will receive an annual report on their child's progress and are able to discuss this with teachers if necessary.

Parents and children are provided with websites and online resources if they wish to continue their learning at home. These are made accessible through each teacher's 'virtual classroom'. Children in UKS2 are set weekly homework. See the Homework Policy for further information.

Parents are made aware of their child's learning in Maths weekly through Twitter and class blogs. As a minimum requirement, each year group's blog will inform parents of what objectives have been covered that week and what will be covered in the following week.

Monitoring and Review

The coordination and planning of the Mathematics curriculum are the responsibility of the subject leader, who also:

- supports colleagues in their planning and teaching, by keeping informed about current developments in Mathematics and by providing a strategic lead and direction for this subject;
- follows the subject's monitoring and evaluation schedule;
- provides the Headteacher an annual summary report in which s/he evaluates the strengths and weaknesses in Mathematics and indicates areas for further improvement.

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