

Mathematics with SMSC

Spiritual

Explore beliefs and experience; respect faiths, feeling and values; enjoy learning about oneself, others and the surrounding world; use imagination and creativity; reflect.

- Ability to be reflective about their own beliefs, religious or otherwise, that inform their perspective on life and their interest in and respect for different people's faiths, feelings and values
- Sense of enjoyment and fascination in learning about themselves, others and the world around them
- Use of imagination and creativity in their learning willingness to reflect on their experiences

At SS Peter and Paul we foster spirituality by:

Throughout the years children develop reflective skills within Mathematics both during lessons and when carrying out self-assessments at the end of a lesson. Self-assessments are very important to enable pupils to have an accurate grasp of where they are and how they need to improve.

In Mathematics pupils are always encouraged to challenge their understanding of Mathematics and how it relates to the world around them. The skills of analysing data are taught from years 2-6 to enable children to make sense of the vast amounts of data available in the modern world around them. They develop a fascination about how currency can be used in their everyday lives. Also life skills such as telling the time, reading measurements and scales are taught in exciting contextual lessons. Children are given the choice in many lessons regarding the numbers or methods that they use. They are also able to choose their own problems and begin to create their own.

Within Foundation stage children begin to explore shapes in the world around them and are able to talk creatively using mathematical language when constructing and describing models. Throughout Key Stage One the children explore mathematical patterns that occur in nature, such as the symmetry of snowflake patterns or the stripes of a Tiger. Lessons are planned carefully, linked to a theme to provide a context in which children have a purpose for learning. Children develop a fascination of Mathematics through a wide range of areas, such as number and place value, addition and subtraction, multiplication and division, fractions, decimals and percentages, geometry and statistics.

In Key Stage Two, children continue to enjoy contextual mathematic lessons. Children investigate different number sequences and where they occur in the real world, such as Fibonacci pattern and algebraic formulas. Children begin to develop a fascination for number, in particular missing number problems. Mathematics is about thinking and describing, analysing and creating - it has changed the world. It can stimulate moments of awe and wonder as learners notice a connection or pattern for the first time. It encourages independence and the ability to make decisions based on evidence, reasoning and logic.

Moral

Recognise right and wrong; respect the law; understand consequences; investigate moral and ethical issues; offer reasoned views.

Pupils' moral development is shown by their:

- Ability to recognise the difference between right and wrong and to readily apply this understanding in their own lives, recognise legal boundaries and, in so doing, respect the civil and criminal law of England
- Understand of the consequences of their behaviour and actions
- Interest in investigating and offering reasoned views about moral and ethical issues and ability to understand and appreciate the viewpoints of others on these issues

At SS Peter and Paul we foster morality by:

Within Mathematics children will recognise how logical reasoning can be used to consider the consequences of particular decisions and choices. Children explore a range of Mathematical investigations where they are challenged and made aware that there may be more than one solution. On the other hand, they are also aware that some problems require one correct answer. A variety of lessons and closing the gap comments require children to prove or explain whether an answer is right or wrong. This helps the children to learn the value of mathematical truth. Mathematical reasoning is developed through guided group work where the children are encouraged to talk about their learning and listen to other viewpoints.

Social

Use a range of social skills; participate in the local community; appreciate diverse viewpoints; participate, volunteer and cooperate; resolve conflict; engage with the 'British Values' of democracy, the rule of law, liberty, respect and tolerance.

Pupils' social development is shown by their:

- Use of a range of social skills in different contexts, for example working and socialising with other pupils, including those from different religious, ethnic and socio-economic backgrounds
- Willingness to participate in a variety of communities and social settings, including by volunteering, cooperating well with others and being able to resolve conflicts effectively
- Acceptance and engagement with the fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs; they develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute positively to life in modern Britain.

At SS Peter and Paul we foster social interaction by:

Problem solving skills and teamwork are fundamental to Mathematics, through creative thinking, discussion, explaining and presenting ideas. Throughout the key stages, children are provided with opportunities to work together productively on mathematical tasks and supported to see that the result is often better than any of them could achieve separately. Experimental and investigation work provides an ideal opportunity for children to work collaboratively.

Where available, selected children take part in gifted and talented mathematical workshops, within the community.

Maths challenge?

Cultural

Appreciate cultural influences; appreciate the role of Britain's parliamentary system; participate in cultural opportunities; understand, accept, respect and celebrate diversity.

Pupils' cultural development is shown by their:

- Understanding and appreciation of the wider range of cultural influences that have shaped their own heritage

- Willingness to participate in, and respond to, for example, artistic, musical, sporting, mathematical, technological, scientific and cultural opportunities
- Interest in exploring, understanding of, and respect for cultural diversity and the extent to which they understand, accept, respect and celebrate diversity, as shown by their attitudes towards different religious, ethnic and socio-economic groups in the local, national and global communities.

At SS Peter and Paul we foster culture by:

Mathematics is a universal language with a wealth of cultural inputs throughout the ages.

While developing their knowledge of place value, children begin to get a sense of number systems from around the world. Children recognise that mathematicians from many cultures have contributed to the development of modern day mathematics.

Within Key Stage One and EYFS, children begin to understand the importance of counting and explore early counting ideas from other countries, such as tallies. Towards the end of Key Stage One, children explore the importance of zero as a place holder.

In Key Stage Two, children begin to explore more developed number systems, such as Roman numerals, Egyptian Hieroglyphics and imperial and metric measurements. This supports the children to realise how our counting system has developed throughout the ages and shaped the decimal system that we use today.

Strong curriculum links with history, allow the children the opportunity to explore calendars developed from different civilisations, such as the Mayans, Aztecs and Romans.

Mathematics is explored through art when looking at symmetrical patterns, such as Rangoli.

All children participate in an annual sports day where they are given the opportunities to count and compare scores.