

Mathematics Policy

"I have come in order that you might have life – life in all its fullness." (John 10:10)

The Department for Education states in the National Curriculum (2013) that: Every state-funded school must offer a curriculum which is balanced and broadly based and which:

- promotes the spiritual, moral, cultural, mental and physical development of pupils at the school and of society, and
- prepares pupils at the school for the opportunities, responsibilities and experiences of later life.

Introduction:

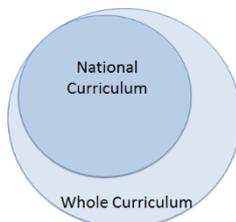
This policy has been developed to ensure that the teaching of mathematics contributes to our school fulfilling its mission statement: Learning and Growing Together

The policy is intrinsically linked with and is informed by our other school policies, including:

- Calculation Policy
- Marking and Feedback Policy
- Early Years and Foundation Policy
- Special Educational Needs Policy
- Equality Policy

General approach:

As part of our strategy to raise pupil attainment, this school uses 'The National Curriculum in England: mathematics programmes of study: key stages 1 and 2' (2013) as a basis for planning teaching and to fulfil the government's statutory requirements. This ensures continuity and progression throughout our school. Our school embraces the statement: "The school curriculum comprises all learning and other experiences that each school plans for its pupils. The National Curriculum forms one part of the school curriculum." (2.2, National Curriculum 2013, Key Stages 1-4)



Assessment for Learning, a focus on investigative and problem solving approaches, plus the development of mathematical thinking are at the heart of our school's approach. A rigorous and planned commitment to the development of teacher and teaching assistants' subject knowledge complements and strengthens this.

Aims:

Our school believes that every child is entitled to a high quality mathematics education, which will provide a foundation for them understanding the world. As a result, they will have an appreciation of the power of mathematics, and a sense of enjoyment and curiosity about the subject. It is our belief that our pupils should:

- **become fluent in the fundamentals of mathematics**, so that they:
 - have a well-developed sense of number values
 - know by heart key number facts, e.g. times-tables and related division facts, number bonds – in line with the latest programmes of study
 - apply knowledge of the above to work out connected facts
- **reason mathematically**, so that they:
 - are able to follow a line of enquiry
 - provide generalisations and proof of findings around their investigations
 - are able to justify their thinking, e.g. as to why a particular calculation strategy is the most efficient
- **solve problems by applying their understanding of mathematics**, so that they:
 - encounter a variety of both routine and non-routine problems
 - are able to select specific maths skills and/or operations
 - persevere with a line of enquiry, breaking down increasingly complex problems into a series of smaller steps

Coverage:

In order that our children get a broad and balanced mathematical curriculum, we will ensure that the following domains are covered each year:

- Number:
 - number and place value
 - addition and subtraction
 - multiplication and division
 - fractions, including decimals and percentages
- Measurement:
- Geometry
 - properties of shape
 - position and direction
- Statistics
- Ration and proportion (Year 6)
- Algebra (Year 6, although the foundations will be taught from Key Stage 1)

Our school is committed to fostering positive attitudes towards the subject, whilst ensuring that all pupils develop deep conceptual understanding (in part, through exposure to a range of models and images) and mastery across the domains listed above, and in line with their age group. Teachers will actively diagnose and address perceived 'gaps' in conceptual understanding. How pupil learning is then developed as a result will be monitored. In line with the curriculum's focus on children making connections, our school will provide regular and stimulating cross curricular enrichment opportunities.

Organisation:

In order to respond to latest changes in the mathematical landscape, including the latest inspection framework, we will ensure that:

- Maths provision and impact on learners is evaluated and reviewed regularly via the School Improvement Plan and aligned maths action plan. As part of this process, the maths subject-leader (alongside other senior leaders) will triangulate evidence from a range of monitoring activities (e.g. planning/book scrutinies, learning walks/observations and pupil voice) to determine next stages of development.

- CPD needs of our staff, including the maths subject-leader and teaching assistants, are regularly reviewed and planned as appropriate. The expectation is that staff attending CPD will be given planned opportunities to cascade key messages, or share through lesson study.

Last reviewed: November 2018 by Performance and Standards Committee

Date of next review: November 2021

Signed: S.Broadbent (Head) /M.Bayliss (Chair)

Maths Policy – Early Years

Aims:

At St Christopher's, we believe that every child is entitled to a high-quality mathematics education, which will provide a foundation for them understanding the world. As a result, they will have an appreciation of the power of mathematics, plus a sense of enjoyment and curiosity about the subject. It is our belief that our children should have a positive learning attitude modelled and:

- **be provided with a broad range of counting experiences** at an early stage of them developing a sense of number
- **learn about key early mathematics concepts and skills**, which need to be understood before they begin to calculate
- **develop a depth in understanding linked with calculation**, including mental maths strategies that can be associated with various structured models and images

Coverage:

In order that our children get a broad and balanced mathematical curriculum, we will offer the following Early Learning Goals (ELG) through the learning and teaching experiences that we provide:

ELG 11: Numbers: Children count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.

ELG 12: Shape, space and measures: Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

Organisation:

By creating a number-rich learning environment, both indoors and outdoors, it is intended that children will be encouraged to engage with meaningful maths learning. This may follow adult-directed teaching or be stimulated by a curiosity in counting and/or calculating using a range of practical resources, including structured apparatus.

We also encourage problem-solving linked with the real-world, and understand that young children need problems:

- which they understand – in familiar contexts
- where the outcomes matter to them – even if imaginary
- where they have control of the process
- involving mathematics with which they are confident