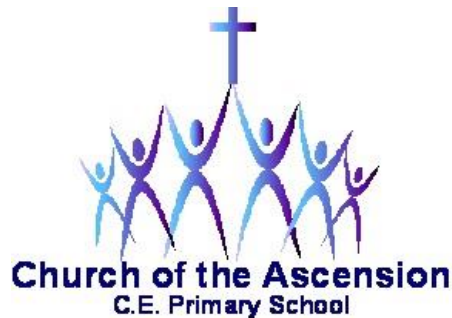


# Church of the Ascension CE Primary School

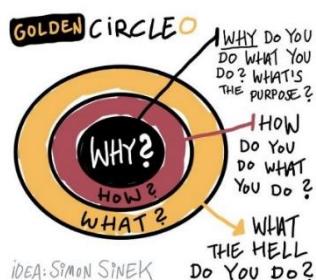


**Learn with Love, Flourish in Faith**

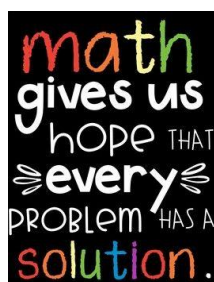
*Do everything in love (1 Corinthians 16:14).*

As an inclusive Christian school, Church of the Ascension C.E Primary School aims to create a loving, caring and respectful community, where individuals can flourish spiritually, socially and academically as children of God in a rich learning environment. Our vision is to inspire lifelong learning, whilst encouraging resilience, independence, aspiration and an appreciation of God's wonderful world.

# Our Approach to the Teaching and Learning of Mathematics



## Subject Intent



### **Why do we do what we do in this subject (aims)?**

At Church of the Ascension the intent of our mathematics curriculum is to design a curriculum, which is accessible to all and will maximise the development of every child's ability to **thrive as individuals** and succeed in academic achievement. At Church of the Ascension children come into school with varied experiences of maths. We therefore have created a curriculum that caters for all children, challenging the higher attaining children and supporting the lower attaining children. Our curriculum can be flexible depending on a cohort of children **so that we can nurture and support all members of our community**. We deliver lessons that are creative and engaging. We want children to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. We intend for our pupils to be able to apply their mathematical knowledge to science and cross curricular subjects. We want children to realise that mathematics has been developed over centuries, providing the solution to some of history's most intriguing problems. We want them to know that it is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. As our pupils progress, we intend for our pupils to be able to understand the world, can reason mathematically, **develop resilience, have an appreciation of the beauty and power of mathematics**, and a sense of enjoyment and curiosity about the subject.

## Subject Implementation

### **How do we ensure our intent becomes a reality?**

At Church of the Ascension, children are taught maths daily covering a broad and balanced curriculum.

The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

We primarily use White Rose maths scheme to develop the use of concrete, pictorial and abstract approaches before moving onto fluency, problem solving and reasoning. **We create a rich, inquisitive learning environment for the children.** We want each child to feel confident in mathematics and be able to choose which method suits them to solve calculations and problems. We understand that not all children work at the same pace and children come into school with different starting points, so the teaching staff have the flexibility to spend longer on fluency if it is needed or less time on fluency and more time on problem solving and reasoning, depending on the cohort. We aim for children to build on knowledge each year whilst still being able to practise previous year groups' objectives. As well as their daily maths lessons, the children will complete a quick recall of number facts/calculations that are developed over time as the objectives are taught (including recall of previous year group facts). Where it seems appropriate, we link concepts so that children do not see objectives as standalone. For example, in year 3, children should know basic fractions from year 2, so they can add fractions at the end of an addition unit rather than waiting for a fraction unit so that they can see skills are transferable. Children are not expected to do 'more of the same thing', if they are secure in a concept, they will be challenged to move on to problem solving and reasoning. If children are not sufficiently fluent with earlier material, they will be targeted through interventions to consolidate their understanding. All children, at some point, will be exposed to problem solving and reasoning in lessons. Knowing the correct mathematical vocabulary is a priority in school. Using mathematical vocabulary is progressive and built on across year groups. SEND children are supported as needed through staffing, scaffolding or use of manipulatives.

Children in EYFS and Key Stage 1 follow the Mastering Number programme that helps them to develop number sense and fluency with number facts. The programme aims to help children develop a strong foundation in number sense and become fluent with addition and subtraction. Children use a variety of resources to explore subitising, investigate how numbers are made up of smaller numbers, and make connections between numbers. The program also incorporates animations from the children's TV series Numberblocks.

Two members of staff are part of the NCETM Maths Hub which supports Church of the Ascension in teaching for mastery.

## Subject Impact

### **What are the outcomes for our children in this subject?**

Through our carefully designed curriculum, by the time children leave Church of the Ascension they will:

To select appropriate strategies.

Use mathematical vocabulary effectively.

Be able to problem solve and reason.

Have a love of maths.

To select appropriate tools to solve problems.

Apply their knowledge across other areas of the curriculum.

To know that maths is essential in for their future job.



### **How do we know that we have achieved these outcomes?**

Throughout each lesson, formative assessment takes place, and feedback is given to the children. Teachers then use assessment for learning to influence their planning and adapt their teaching to help children to progress. Monitoring takes place each half term by the maths coordinator through book scrutinise, pupil questionnaires and learning walks. In the Autumn, Spring and Summer term, teachers use White Rose tests alongside their formative assessments to determine children's progress and attainment. In the second part of the Autumn term, teachers use Maths.co.uk to formatively assess children against the curriculum objectives for their year group. This enables teachers to understand where children are in their maths journey and that they need to do to move forward with retaining current knowledge and securing new knowledge.

The expectation is that most children will move through the curriculum at broadly the same pace. They will be able to recall facts and procedures and will have the flexibility and fluidity to move between different contexts and representations of maths. Relationships and connections in maths will be made and we will know it has been mastered by children being able to show concepts in multiple ways, using mathematical language to explain their ideas and independently apply the concepts to unfamiliar situations.