

## Mathematics Curriculum Statement

### Mission Statement

Our school community is rooted in the Gospel and the vision of St. Catherine of Siena. This inspires each of us *'To be who God wants us to be and so set the world on fire.'*

- We are called to love one another as we seek to be the best in all that we learn and do.
- We celebrate and nurture the gifts, talents and skills of everyone.
- We commit ourselves to grow together in faith, love and service.

More specifically, this means we aim to:



### Intent

At St. Catherine's Primary School, we aim to create confident, curious and risk-taking mathematicians who have a love of learning and can apply their mathematical understanding to a range of different concepts. We offer a high-quality mathematics education which provides a foundation for understanding the world, the ability to reason mathematically and solving challenging problems by applying their fluency skills. We develop independent learners with inquisitive minds who have secure mathematical foundations. Our Mathematics curriculum promotes the St Catherine's ethos, "Be who God wants you to be and so set the world on fire" and is supported by our six Core Values which are, Inspiration, Love, Respect, Perseverance, Faith and Compassion.

Our vision as a school is to encourage the children to strive for excellence in all that they do and to encourage them to flourish and have a love of learning for the subject through teaching high quality maths lessons. We focus on shaping the whole person and allow

lessons to cater for all talents, skills and learning types as children blossom in different areas. Learning spaces within school are created to inspire the children through the use of resources, children's work and strategies to assist them. Throughout the school, learning walls are used consistently and effectively, which consist of key vocabulary for the topic, strategies such as 'Draw it,' 'Show it,' 'Explain It' and 'Prove it.' Under these headings are children's works to show how they have done it in the lesson. However, to support progression, in Key Stage One we have a focus on 'Draw it,' 'Show it,' 'Explain It'. Each maths learning area has baskets to store resources at an age appropriate level. The learning walls are intended to help move the children's learning on.

### **Implementation**

Our mastery approach to the curriculum is designed to develop children's knowledge and understanding of mathematical concepts from the Early Years Foundation Stage (EYFS) through to the end of Year 6. At St Catherine's, we follow the national curriculum and use White Rose Maths Schemes of Work as a guide to support teachers with their planning and assessment. We use our calculation policy within school to ensure a consistent approach to teaching the four operations. As the children start EYFS, they focus on a number a week which they look at: What it is worth? What does it look like? Where does it sit on the number line? How can we make it? What comes before/after it? How does it apply to shape? Can we recognise this number in the environment? They also teach the national curriculum objectives in their daily practice.

For Key Stage One and Key Stage Two, at the start of each new topic, children complete a pre-assessment task; this enables the teachers to ascertain what pupils already know and thus plan accordingly ensuring that children are both supported and challenged so that every child makes progress. Children are taught through clear modelling and through our mastery approach, which incorporates using objects, pictures, words and numbers. We help children to explore and demonstrate mathematical ideas, enriching their learning experience and deepen their understanding at all levels. Those children who have shown their understanding at a deep level within the unit, will have opportunities to apply these skills in greater depth through further challenge activities and are accelerated to problem solving and reasoning activities. In each lesson, mathematical resources are readily available to assist the securing of a conceptual understanding of the different skills appropriate for each year group. A love of maths is encouraged throughout school via links with others subjects, applying an ever-growing range of skills with growing independence. Pupil's progress is measured on a yearly basis by the NFER tests and the improvement which children make on these. More frequently, the impact of learning is monitored by questioning, focus groups, daily feedback and formative and summative termly assessment. For children with additional needs, individual learning activities are provided to ensure their progress, as well as further scaffolding and relevant support as necessary.

Mathematics is continuously being monitored, reviewed and evaluated to ensure that we are delivering high quality lessons and that the children are accessing the curriculum and their needs are being met. These impacts are measured through triangulation, learning walks, pupil voice, book scrutinies, lesson observations, teacher voice and questionnaires. This constant monitoring allows the school to make necessary steps to improve and progress to

be the best it can be. O Track is also used to record assessments and track progress throughout each class, year group and across the whole school, including for different groups of pupils. This helps us to evaluate data and progression effectively and use this knowledge to continue to improve and adapt.

### **Cross curricular links**

As a school we work to incorporate maths into other areas of the curriculum here are some examples. We use the idea of 'Active Maths' which we encourage teachers to do once a week so the children are learning in different contexts. It is a good practical session to stimulate the brain and involve cross curricular links, especially with Physical Education. Data handling is a key aspect that is focused on when it comes to Science. The children use their observational skills to investigate and then record results into tables and graphs.

### **Home school links**

We help to encourage parents to support their children to access Maths at home through the use of TT Rockstars for Key Stage Two to learn their times tables. Key Stage Two also send home 5-a-day learning problems which consist of 5 maths questions to help support the children with their learning on the lead up to SATs. CPG books are also purchased for Years 2 and 6, which are a good home-school link to allow children to revisit methods and strategies.

### **Impact**

The impact of our mathematics curriculum is that children show confidence in believing that they will achieve and they recognise the relevance of what they are learning in relation to real world concepts. We have fostered an environment where Maths is exciting and it is OK to be 'wrong' because the journey to finding an answer is the most important. Our children have a growth mindset and they make measurable progression against their own targets. As a school, we use the saying 'mistakes make us clever' as this is a positive way to understand that we can be wrong and we learn from this.

Our maths books are packed with a range of activities showing evidence of fluency, reasoning and problem solving. Our feedback and interventions are supporting children to strive to be the best mathematicians they can be, ensuring a greater proportion of children are on track, and many children are displaying that they are working at a Greater Depth understanding. Children show a high level of pride in the presentation of the work and can explain how they achieved an answer.

Children 'have a go' and choose the equipment they need to help them to learn along with the strategies they think are best suited to each problem. Children are developing skills in being articulate and are able to verbally, pictorially and in written form reason well. They show flexibility and fluidity to move between different contexts and representations of maths and are given the opportunity to develop the ability to recognise relationships and make connections in maths lessons.

Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.