

**At St Mary's CE VC First School we are committed to providing our children with a curriculum that has clear intention and impacts positively upon their needs.**

### **Mathematics Intent 2022 - 23**

**At St Mary's our aim is to create a love of maths and believe that all children can achieve. We intend to foster curious minds and to create an ethos of exploration. We focus upon the journey rather than the final answer. Our 'small step' sequenced approach is used to build confidence and to structure the child's learning. The aims of the National curriculum are fluency, reasoning and problem solving. At St Mary's, we recognise that these skills are interconnected. Thus even though you will see us teach units of mathematics discreetly, we intend for children to make connections across mathematical ideas. Our teaching of maths is centred on the CPA approach, (concrete, pictorial, abstract.) We intend to build knowledge, skills and understanding through revisiting key concepts and using different representations thus consolidating and deepening each child's understanding of mathematics. We will provide daily problem solving opportunities in order to foster resilient mathematicians.**

### **Teaching For Mastery:**

**Our curriculum ensures children apply mastery skills. We follow the White Rose maths scheme which takes the children along a path of deeper understanding. We expect the majority of children will move through the maths units at the same pace however, the security of a child's understanding is of utmost importance. Children who rapidly grasp concepts will be challenged through being offered rich mastery and sophisticated problems before being introduced to new units. We will support children who are not fluent with earlier material through additional practice in order to consolidate their understanding. In addition to the White Rose scheme, we use resources from NCETM to inform our progression and Nrich to provide thought provoking challenges which encourage collaboration.**

### **Fluency:**

**We intend all children to become fluent in the fundamentals of mathematics. We want all children to recall and apply mathematical knowledge accurately and with understanding. We place emphasis upon the children's understanding of number and number facts in order that they get a secure understanding of place value. In both KS1 and 2, we place great emphasis upon additive relationships, (addition and subtraction,) and multiplication/division.**

### Providing a vocabulary rich environment:

At St Marys, we know that children need to actively participate within any lesson in order to learn. We teach and scaffold mathematical language and stem sentences in order to support a discursive classroom. Children are expected to talk in full sentences using mathematical language. Such a vocabulary enriched environment allows a high level of reasoning and builds mathematical confidence. We want the children to confidently make conjectures, predictions, develop arguments and justify their thoughts: We want children to listen to each other, to feel confident in disagreeing with each other and work collaboratively. We want to foster an ethos of celebrating mistakes and praising resilience in using that mistake as a starting point to tackle the problem.

### Embracing Challenge:

We intend for the children to use their enriched vocabulary to problem solve. We teach in small steps and use a variety of mathematical representations so that the children can use what they know to support their problem solving. We ensure that problem solving is a part of each lesson in order to create resilience. We tell our children that we are not interested in the final answer but we are excited about the decisions they made in order to get there.

### Lesson Structure:

Lessons start with a 'warm up' question or activity. This may be a revision task or a pre teach activity. It is intended to engage the children and to encourage collaborative discussions. Children then present and explain their thinking to the class. The main activity is taught as part of a carefully sequenced small step approach. We strive to build upon previous skills and understanding. We have a whole class teaching approach: we want our children to be equitable participants and to all be able to access the lesson. At the planning stage teachers consider adaptations for children who may struggle to grasp a concept, and great depth challenges for those who show security in their knowledge. We use 'Teaching For Mastery' techniques such as Ping - Pong style: this allows small, coherent steps to support children through the learning so that they are ready for independent work,) We use the CPA approach as a tool to understanding rather than a mere tool for finding the final answer. Children then apply their understanding through activities such as: Explain it to your partner, discuss it with your partner and decide on an answer, True or False, Always, Sometimes or Never', written activity on a structured worksheet that supports the input, or a whiteboard activity - show me, prove it with a picture. Teachers will use precise questioning throughout maths lessons to elicit children's understanding and

promote and challenge children to deeper understanding of concepts. Questioning will be both open and closed and aims to develop the child's understanding. The independent time slot can also be used as same day intervention for those children who need extra adult help or more practice. A challenge is set in which children have the opportunity to apply their knowledge to a problem which has not been pre taught.

#### **Responsive Teaching:**

Work will be marked according to the school's policy. However, the children benefit from immediate feedback so some work will be marked VF - Verbal feedback - indicating that an intervention has taken place. Teachers will sometimes use post it notes to indicate the child's level of understanding or to record valuable reasoning.

#### **Continuing Professional Development:**

St Mary's belongs to the St Osmund's Mini Pyramid group, led by Phil Eadie from Thomas Hardy School. Our aim is to review and improve the teaching of Mathematics within our DASP community.

St Mary's also belongs to a local Teaching for Mastery hub. In September 2021, we joined the Mastering Number Hub.

We intend that teachers reflect and improve teaching by working collaboratively in the planning of lessons.

#### **SEND:**

Where children are working significantly below the expected age related requirements of the curriculum scaffolding and targeted work takes place. These activities are planned by the teacher in discussion and collaboration with the SENDCO and parents. Each child with specific SEND difficulties will have targets that are agreed and monitored every half term to ensure progression.