

St Helena's Church of England Primary School, Willoughby

"It is our responsibility to learn and achieve our dreams as a family."

Valuing Compassion, Community, Endurance, Friendship, Hope, Respect, Thankfulness, Wisdom.

**Policy for the Teaching and Learning of Mathematics**

**Intention**

The intention of this mathematics policy is to create an environment where mathematical skills such as problem solving, reasoning, spotting patterns and connecting knowledge together to move thinking forward is encouraged, allowing the power and purpose of mathematics in everyday life, and in the world around them, to be unlocked.

We aim to create a learning environment where:

- children are willing and curious to investigate
- have the vocabulary and concrete understanding to explain and reason
- feel confident to have a go as they see mistakes positively.

A growth mind-set is key to developing mathematical confidence for children to feel capable when applying their mathematical knowledge to more challenging contexts and problems. This growth mind-set must be modelled, encouraged and nurtured by the adults around them.

**Implementation**

The implementation of this policy is the responsibility of the whole teaching staff and is overseen by the subject leader. For the children to be supported effectively attitudes towards maths must be positive. The teaching teams are encouraged to be reflective and seek advice when they feel necessary to ensure they feel confident in their delivery of the mathematics curriculum. This will ensure the children see maths positively and are encouraged to feel capable and confident in their own mathematics ability.

To support consistency across school, the Power Maths scheme is used as a tool to aid teacher's knowledge and support coverage and progression throughout school. This scheme is adapted based on the teacher's professional judgement as well as the individual needs of the children to ensure ALL children can feel successful and achieve their full potential.

At St Helena's we take a mastery approach to teaching mathematics where we see ALL the children as capable and competent mathematicians, when given the correct support and time, that enables them to unlock the mathematical concepts of place value, the four operations, shape, space, measure, fractions, statistics and problem solving.

One way we aim to ensure all children can achieve their potential is through the use of a concrete, pictorial, abstract approach that ensures the mathematical understanding is built on a strong foundation of discovering, exploring, investigating and explaining using concrete manipulatives alongside mixed ability paired discussion. Occasionally we see it appropriate for ability pairing to

offer targeted support so our seating is fluid and changeable in accordance with teachers' formative assessment judgements.

Question and sentence stems are visible in our classrooms to support children's questioning and reasoning in maths and across other curriculum areas. These aid mathematical reasoning and support explanations alongside vocabulary that is discussed and collected on working walls. By giving children the correct vocabulary and questioning skills we aim to support children's independent problem solving skills.

Our aim is for children to develop mathematical fluency through pattern spotting, the use of exploring a variety of manipulatives and images in order to deepen learning so that there is less reliance on memory to support speedy recall and lower cognitive overload. We use programmes like TT rockstars and daily 10 to make fluency fun and ensure we discuss cognitive strategies for number facts such as timetables.

Those who are quicker graspers (sometimes deemed greater depth) are encouraged to show, prove and explain their understanding of the concepts as well as applying to more complex problems that may include spotting generalisations or finding a systematic way of approaching a problem. Greater depth children are encouraged to see understanding as working towards a deep understanding rather than a finished product.

Currently Power maths have not released EYFS support materials therefore our EYFS team use a mixture of number blocks and white rose long term planning alongside an understanding of Year 1 Power Maths for progression, transition and continuity, upon which their curriculum is delivered. The EYFS team aim to provide a practical, exploratory mathematical foundation so that children develop a strong sense of number that their KS1 and KS2 learning can be built upon.

Maths is assessed and closely monitored at St Helena's C of E Primary school through the use of on the spot feedback from the teaching teams in order to quickly identify children's misconceptions and provide on the spot support. Verbal feedback is often used during our maths sessions to quickly identify and aid children's understanding (this is often marked with a VF). Where possible, pre-teaching is used with small groups identified as requiring more opportunities to experience the concept to keep pace with their peers. In some cases, technology is used to capture children's reasoning and explanations through videos. End of unit, White Rose end of term tests and some test style questions are used at various times through the year to ensure children have competence and understanding before moving onto new content.

### **Impact**

In our maths classrooms at St Helena's C of E Primary School we hope that you will see willing, confident mathematicians who embrace the challenges that mathematics can provide with the attitude that it is not that they cannot do something they just cannot do it YET! We aim to nurture hopeful mathematical learners who are willing to problem solve by applying the learning they already know, investigate using manipulatives and pictorial representations and discuss with their peers.

### Governing Body

At St Helena's CE School every Studio has at least one Governor responsible for monitoring and evaluating the impact of Mathematics teaching and learning. The governors will be invited to attend relevant professional development sessions and to closely monitor and evaluate the impact of any school actions.

They will be invited to visit the school termly to talk with the staff and children and when possible, observe children learning. They will report back to the full Governing Body on a regular basis.

This policy will be reviewed annually.