Mathematics at Rackenford Church of England Primary School

Intent:

At Rackenford Primary School, our lessons aim to build fluency, develop problem solving skills and reasoning skills with links to real life contexts – giving mathematics meaning and value. We intend on delivering a curriculum which:

· Gives each pupil, whatever their ability, a chance to believe in themselves as mathematicians and develop the power of resilience and perseverance when faced with mathematical challenges.

· Allows children to be part of creative and engaging lessons that will give them a range of opportunities to explore mathematics following a mastery curriculum approach.

· Recognises that mathematics underpins much of our daily lives and therefore enables children to become successful in the next stages of their learning.

· Engages all children and entitles them to the same quality of teaching and learning opportunities, striving to achieve their full potential.

· Makes rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

· Provides equal opportunities for children to apply their mathematical knowledge to other subjects (cross-curricular links).

· Is in line with the National Curriculum 2014.

Implementation:

Our mastery approach to the curriculum is designed to develop children's knowledge and understanding of mathematical concepts from the Early Years through to the end of Year 6.

Teaching and Learning, Content and Sequence

· In school, we follow the National Curriculum and use White Rose Maths across the school as a guide to support teachers with their planning and assessment. This allows key skills to be taught and revisited throughout the year and each term. We also use NCETM and NRICH resources to complement our planning.

· The calculation policy is used withing school to ensure a consistent approach to the teaching of the four operations over time.

· At the start of each new topic, key vocabulary is introduced and revisited regularly to develop language acquisition, embedding as the topic progresses.

· Children are taught through clear modelling and have the opportunity to develop their knowledge and understanding of mathematical concepts. The mastery approach incorporates using objects, pictures, words and numbers to help children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding at all levels.

· Children work on the objective at whatever entrance stage they are assessed as being at. Children can acquire the skill, apply the skill or deepen the skill within the lesson.

· Children who have shown their understanding at a deeper level within the unit will have opportunities to apply these skills in a greater depth activity. This will be challenging and ensures the children are using more than one skill to be able to answer mathematical problems.

· Reasoning and problem solving are integral to the activities children are given to develop their mathematical thinking.

· Resources are readily available to assist in demonstrating securing a conceptual understanding of the different skills appropriate to each year group.

· Children are encouraged to explore, apply and evaluate their mathematical approach during investigations to develop a deeper understanding when solving different problems/puzzles.

· A love of maths is encouraged throughout school via links with other subjects, applying an ever-growing range of skills with growing independence.

· Children with additional needs are included in whole class lessons and teachers provide scaffolding and relevant support as necessary. For those children who are working outside of the year group curriculum, individual learning activities are provided to ensure their progress.

Leadership, Assessment and Feedback

· Assessment informs the teaching and learning sequences and children work on the objectives they are assessed as being at.

· Feedback is given on children's learning in line with our feedback policy. Formative assessment within every lesson helps teachers to identify the children who need more support to achieve the intended outcome and who are ready for greater stretch and challenge through planned questioning or additional activities.

· In order to support teacher judgements, children may be assessed using current and reliable tests in line with the National Curriculum for mathematics. Gap analysis of tests that children complete is undertaken and fed into future planning.

· Summative assessments are completed at the end of the academic year using White Rose Maths termly and are reported to parents in the end of year report.

Impact

· Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they love learning about maths.

· Children can articulate the context in which maths is being taught and relate this to real life purposes.

· Children demonstrate a quick recall of facts and procedures. This includes the recollection of the multiplication tables.

· Children show confidence and believe they can learn about a new maths area and apply the knowledge and skills they already have.

· The flexibility and fluidity to move between different contexts and representation of maths.

· Children are able 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 mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

· Children show a high level of pride in the presentation and understanding of their work.

· All children to have made progress from their starting points. All children are moving towards achieving Age Related Expectations (ARE) for their year group. Some children will have progressed further and achieved great depth (GD). Children who have gaps in their knowledge receive appropriate support and intervention.

· All children secure long-term, deep and adaptable understanding of maths which they can apply in different contexts.