Mathematics Curriculum Statement

Intent

At Worle Village Primary School, Mathematics and the teaching of Mathematics is at the foundation of our curriculum as mathematical understanding in Early Years is a key predictor of success in education. Our main aim is to ensure that every single child becomes adept in the primary science of numbers, quantities, geometry and forms through teaching for mastery. By including the 5 key big ideas of teaching for mastery (coherence, representation and structure, mathematical thinking, fluency and variation) the three main aims of the National Curriculum of fluency, problem solving and reasoning will be achieved. As Mathematics is an interconnected subject, a spiralling curriculum is required to build and make connections. Through the use of Government recommended text books, such as Maths No Problem, and other teaching for mastery resources, a small step progression in learning is conducted. Staff at Worle Village feel it is seminal to highlight and be aware of the differing starting points of some learners within a lesson and plan to scaffold learning so that the majority of learners progress at broadly the same pace.

Mathematics at Worle Village will not only be taught through daily discrete lessons of main concepts and strands of mathematics plus daily discrete lessons of mental oral strategies, but embedded throughout the curriculum in areas such as graphs in Science and shape in Art. Teachers will encourage children to recognise the mathematics involved in the children's daily lives to develop a sense of understanding and curiosity of mathematics in context.

Implementation

At Worle Village, we ensure that mathematics is explicitly taught every day with each child having time with the teacher, as necessary for 'same day' intervention as appropriate. This could be, but not limited to, verbal feedback at the time, small group session during the lesson, small group session during another time of the day or pre-teaching.

As we believe in the practice of teaching for mastery for mathematics, more time is spent on one theme or concept, developing deep sustainable understanding rather than accelerating into the next year's content. Understanding of concepts is deepened through the use of variation and therefore depth of understanding is achieved. Differentiation is given through scaffolded support to access the learning so that the majority of children progress at broadly the same pace. This scaffolded support could be, but not limited to, adult support with manipulatives to highlight the structure of the mathematics, independent use of manipulatives to highlight the structure of the mathematics, peer mentoring or adult guidance.

Talk for mathematical understanding is key at Worle Village where reasoning and explanations are at the heart of developing deep and sustainable understanding. Along with a growth mindset, 'I don't know yet', children are actively encouraged to not only state the answer but also to give a clear reasoned explanation using correct precise mathematical vocabulary. This not only consolidates their learning but also the learning of others. Stem sentences and generalisations are modelled by the class teacher to ensure that children are able to give accurate statements in relation to their learning.

As the journey for Worle Village progresses in teaching mathematics for mastery, all staff will be supported where appropriate by the school's Mastery Specialist Teacher to develop effective practice relevant to their children in order for the children to maximise their full potential.

Impact

The impact on our children is clear: progress, sustained learning, understanding mathematics as a connected subject, fluency, reasoning and the ability to problem solve. With the journey of teaching mathematics for mastery at Worle Village well established throughout the school, children are becoming increasingly confident with their learning and understanding. They develop an enjoyment of learning in mathematics and understand the place mathematics holds in the life around them. Through the use of stem sentences and reasoning, this skills have transferred into other areas of the curriculum across the school, making the children more engaged and focused on their learning.

We hope as the children progress to secondary and tertiary education that their depth of understanding and reasoning skills prepare them for continued success and enjoyment of mathematics.