Mathematics at HCFS

Intent:

At HCFS we aim to deliver a high quality mathematics education which provides a foundation for understanding the world, the ability to reason mathematically and an appreciation of the beauty and power of mathematics. Our curriculum ensures that our children:

- Become fluent in the fundamentals of mathematics in order to develop conceptual understanding and the ability to recall and apply their knowledge rapidly and accurately.
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can solve problems by applying their mathematics to a variety of routine and non-routine problems.

Implementation:

Each pupil has a daily mathematics lesson covering the aims and objectives from the National Curriculum set out in the Collins' Busy Ants maths scheme. Through direct teaching, interactive discussion and guided practice, pupils are supported to develop fluency, reasoning and problem-solving skills.

Each lesson begins with four retrieval questions, based on four different concepts learnt previously, to encourage quicker recall and to ensure content is secure in the learners' long term memory. These concepts are chosen through analysis of Check Point data and teacher assessment. A calculation policy is provided for teachers to ensure they have a strong understanding of how concepts progress in terms of method and approach. Manipulatives are used regularly and are always available to all children to support their understanding and progress. The use of 'my turn, our turn, your turn' modelling scaffolds the development of understanding of mathematical concepts with children encouraged to work at their own pace and choose their own challenge. Teachers ask questions such as 'What do you notice?', 'If we know x then how can that help with y?' and 'Tell me more' to develop the children's ability to spot links between content and use mathematical language to explain their thinking. Mastery glasses are also used within lessons to support the children with gaining a deeper understanding of how to successfully apply learning and solve problems. On top with the five lessons a week, Children in Key Stage Two complete a mini maths intervention sessions per week to supplement the development of building fluency and mastery across the curriculum and practise learning from day to day.

Our children have weekly access in school to Online Platforms (Timestable Rockstars, Numbots and IXL) to support further development and understanding. These platforms are used within lessons and children access them at home. Teachers set specific learning activities for individuals and groups of children related to current learning or as a revision of previously covered topics.

Impact:

Children are growing in confidence to use Mastery Glasses and evidence their mathematical thinking through spoken word as well as abstract and pictorial methods.

Children's achievements in the arithmetic aspect of the curriculum are increasing as a result of focus on fundamental mathematics skills in the first term of each academic year.

Children can make links between areas of the curriculum due to the fluency approach taken at the start of every lesson and can move between concepts in assessments with confidence.

'My turn, our turn, your turn' approach gives children a greater confidence when independently beginning to activities due to strong modelling and guided practice from their teachers.