



Hampreston First School

Vision

All children, regardless of age, stage or need, develop secure and fundamental mathematical knowledge. They are able to quickly draw links between mathematical knowledge and concepts, within and across subjects and can apply these skills in a wide range of problem-solving situations. Children develop a familiarity with a range of solving strategies, including using concrete, pictorial and abstract models and can articulate these to others, selecting suitable skills when problem solving. Children engage with maths and develop a love of learning within the subject.

Why We Believe *Maths* is Important

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason, to be financially responsible and to solve problems. It enables children to understand and appreciate relationships and patterns in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics

Characteristics of Mathematicians

We believe that all children can and should be mathematicians.

As mathematicians, children understand that:

- Everyone can learn mathematics to the highest levels
- If you 'can't do it', you 'can't do it yet'
- Mistakes are valuable
- Questions are important
- Mathematics is about creativity and problem solving
- Mathematics is about making connections and communicating what we think
- Depth is much more important than speed
- Mathematics lessons are about learning, not performing

Subject Statement

Intent

At Hampreston, we take a mastery approach to the teaching and learning of mathematics and we believe that all children can be successful in the study of mathematics. We teach the skills to ensure our children are resilient learners who become life-long mathematicians. We aim to deliver an inspiring and engaging mathematics curriculum through high quality teaching. In order to improve our mastery approach and improve the quality of our maths teaching, we have implemented the Power Maths approach.

The Power Maths approach enables children to be numerate, creative, independent, inquisitive, enquiring and confident learners. Children should not be afraid to make mistakes and should fully embrace the fact that mistakes are part of learning. A mastery curriculum promotes a deep, long-term, secure and adaptable understanding of the subject, so that children become fluent in calculations; possess a growing confidence to reason mathematically and hone their problem-solving skills.

The intention of the Maths curriculum at Hampreston is for children to be excited about maths. Teachers promote children's enjoyment of maths and provide opportunities for children to build a conceptual understanding of maths

before applying their knowledge to everyday problems and challenges. We ensure that challenge is provided for all children, whatever their understanding and believe that equality of opportunity is important. Children are encouraged to be brave and push the boundaries, deepening their understanding further.

Implementation

At Hampreston, we recognise that children need to be confident and fluent mathematicians. To ensure consistent coverage, teachers follow the Power Maths scheme of learning to support their planning. High quality resources are used in conjunction with Power Maths, such as NRich, NCETM and White Rose Hub resources to support, stretch and challenge all children within the classroom. Through this approach, carefully designed variation builds fluency and understanding of underlying mathematical concepts.

Our curriculum builds on the concrete, pictorial, abstract approach. By using all three, the children can explore and demonstrate their mathematical learning. Together, these elements help to cement knowledge so children truly understand what they have learnt.

Teachers reinforce an expectation that all children are capable of achieving high standards in Mathematics. The large majority of children progress through the curriculum content at the same pace and differentiation is achieved by emphasising deep knowledge and through individual support and intervention. Teachers use precise questioning in class to test conceptual and procedural knowledge and assess children regularly to identify those requiring intervention, so that all children keep up.

Impact

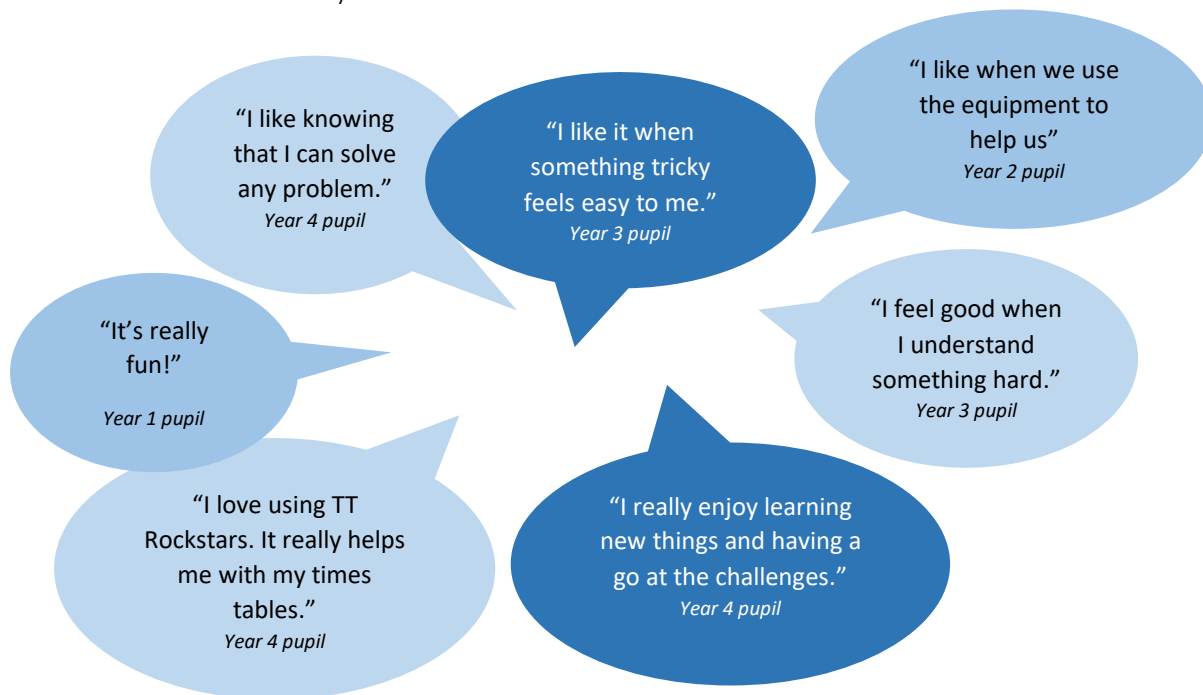
At Hampreston, we tell our children that it is OK to be 'wrong' because the journey to finding an answer is most important. Our maths books contain a range of activities, showing evidence of fluency, reasoning and problem solving. Our feedback and interventions are supporting children to strive to be the best mathematicians they can be, ensuring a greater proportion of children are on track.

Children persevere when attempting to solve problems, and choose the equipment and strategies they think are best suited to each problem. Our Maths Mastery approach ensures that their knowledge is well embedded and gives them the right tools to solve problems in different contexts. Children are developing skills in being able to reason verbally, pictorially and in written form.

Regular and ongoing assessment informs teaching, as well as intervention, to support and enable the success of each child. Summative assessment takes place at the end of each half term. Formative assessment takes place on a daily basis and teachers adjust planning accordingly to meet the needs of their class. In addition, we place a strong emphasis on the power of questioning: this enables us both to explore topics together as a class as well as verbally develop reasoning skills during our lessons. Children are encouraged to take ownership of their learning through self- and peer-assessment and group learning activities.

The effectiveness of teaching and learning is frequently monitored through lesson observations, book scrutinies and pupil interviews.

This is what some of our children say about maths:



Maths Curriculum Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception Power Maths Overview	Baseline Unit 1: Numbers to 5 Unit 2: Sorting	Unit 3: Comparing Groups within 5 Unit 4: Change within 5 Unit 5: Time	Unit 6: Number Bonds within 5 Unit 7: Numbers to 10 Unit 8: Comparing numbers within 10	Unit 9: Addition to 10 Unit 10: Number Bonds to 10 Unit 11: Shape and Space	Unit 12: Exploring Patterns Unit 13: Counting on and Back Unit 14: Numbers to 20	Unit 15: Numerical Patterns Unit 16: Measure
Year 1 Power Maths Overview	Unit 1: Numbers to 10 Unit 2: Part-whole within 10 Unit 3: Addition and Subtraction within 10	Unit 4: Addition and Subtraction within 10 Unit 5: 2D and 3D Shapes Unit 6: Numbers to 20	Unit 7: Addition within 20 Unit 8: Subtraction within 20 Unit 9: Numbers to 50	Unit 9: Numbers to 50 Unit 10: Introducing Length and Height Unit 11: Introducing Weight and Volume	Unit 12: Multiplication Unit 13: Division Unit 14: Halves and Quarters Unit 15: Position and Direction	Unit 16: Numbers to 100 Unit 17: Time Unit 18: Money
Year 2 Power Maths Overview	Unit 1: Number and Place value Unit 2: Addition and Subtraction	Unit 3: Addition and Subtraction Unit 4: Money Unit 5: Multiplication and Division	Unit 6: Multiplication and Division Unit 7: Statistics Unit 8: Length and Height	Unit 9: Properties of Shapes Unit 10: Fractions	Unit 11: Position and Direction Unit 12: Problem Solving and Efficient Methods	Unit 13: Time Unit 14: Weight, Volume and Temperature
Year 3 Power Maths Overview	Unit 1: Place value within 1,000 Unit 2: Addition and Subtraction	Unit 3: Addition and Subtraction Unit 4: Multiplication and Division	Unit 5: Multiplication and Division Unit 6: Money	Unit 7: Statistics Unit 8: Length Unit 9: Fractions	Unit 10: Fractions Unit 11: Time	Unit 12: Angles and Properties of Shapes Unit 13: Mass
Year 4 Power Maths Overview	Unit 1: Place value – 4-digit numbers Unit 2: Place value – 4-digit numbers Unit 3: Addition and Subtraction	Unit 3: Addition and Subtraction Unit 4: Measure – Perimeter Unit 5: Multiplication and Division	Unit 6: Multiplication and Division Unit 7: Measure – Area Unit 8: Fractions	Unit 8: Fractions Unit 9: Fractions – Adding and Subtracting Fractions Unit 10: Decimals	Unit 11: Decimals Unit 12: Money Unit 13: Time	Unit 14: Statistics Unit 15: Geometry – Angles and 2D shapes Unit 16: Geometry – Position and Direction

Promoting British Values Through Maths

We endeavour to promote the British Values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs through our science curriculum. Please see our British Values policy for further information. Through our maths lessons we promote individual liberty through encouraging children to make their own choices and mutual respect in listening to other people's ideas.

Spiritual, Moral, Social and Cultural Aspects

Mathematics supports spiritual development by engaging children with depth of thinking and problem solving. It also helps children to make connections between numeracy skills and real life; for example, budgeting, saving and making charitable donations. The School Council make decisions about fundraising for charity and for the benefit of the school.

Mathematics supports moral development by encouraging children to look, discuss and evaluate a range of social and moral issues found in the world. This can sometimes draw upon other areas of study, such as history or geography through engaging in unequal shares of resources, why someone might be upset if they received less than other people and make links to the concept of inequality.

Mathematics supports social development by requiring verbal reasoning. Children have opportunities to discuss their learning with their peers at regular intervals throughout the lesson. Also through the sharing of resources within the classroom, the negotiating of responses and group problem solving and by using discussion, debate and collaborative work to further mathematical knowledge and understanding.

Mathematics supports the cultural development of a child by exposing them to a range of different approaches to solving problems and reasoning skills; through asking questions about the history of maths: for example, 'What did the Egyptians discover that we still use in maths today?'; as well as using mathematics to interpret and evaluate geographical and scientific data.

Inclusion & Equal Opportunities

Through the maths policy the school aims to provide every child with an equality of opportunity to access a broad and balanced curriculum regardless of gender, ability, attainment, background and ethnicity, through:

- Valuing the wide variety of experiences the children bring to school
- Providing differentiated tasks for gifted and more able pupils
- Providing Intervention programs
- Addressing the needs of children learning English as an additional language

Date of policy review: