



Characteristics of a Mathematician

"I always knew how many of everything there were. Things were there and could be counted and accounted for, and so that's what I did."

**The Autobiography of NASA Mathematician
Katherine Johnson, 2020**

At Stocksbridge Junior School, we are mathematicians!

At Stocksbridge Junior School, every child is a mathematician. Our mission is to enable all learners to enjoy and succeed in Mathematics. The value of a high-quality Mathematics education is well recognised for its importance both to the individual and to society. Being competent in Mathematics is key for functioning within a community and being a productive part of the workforce.

The study of Mathematics reaches beyond this and 'provides a foundation for understanding the world, the ability to reason mathematically, appreciation for the beauty and power of Mathematics, and a sense of enjoyment and curiosity about the subject.' (National Curriculum). Our curriculum is premised on a belief that all learners can enjoy and succeed in Mathematics, and our ultimate aim is that learners enjoy and achieve in Mathematics, developing a real interest in the subject. Success for all is about ensuring no learner is left behind as well as ensuring more learners excel in Mathematics. Belief that all can achieve and a commitment to providing learning experiences that allow for this are absolutely essential to accomplish success for all. Fostering learner attitudes that are based on belief in the capacity to learn can be achieved through developing resilience and confidence.

Mathematics at Stocksbridge Junior School has been designed on principles to provide learners with a deep conceptual understanding of mathematical principles, and the ability to confidently communicate in precise mathematical language while becoming mathematical thinkers. We believe that if a pupil understands the core principles, they will be able to remember more and do more maths, in whatever context they encounter it. Through a wide breadth of study, we aim to ensure that pupils have a long-term memory of an ambitious body of procedural and semantic knowledge.

As mathematicians, we have...

- An understanding of the important concepts and an ability to make connections within mathematics.
- A broad range of skills in using and applying mathematics.
- Fluent knowledge and recall of number facts and the number system.
- The ability to show initiative in solving problems in a wide range of contexts, including the new or unusual.
- The ability to think independently and to persevere when faced with challenges, showing a confidence of success.
- The ability to embrace the value of learning from mistakes and false starts.
- The ability to reason, generalise and make sense of solutions.
- Fluency in performing written and mental calculations and mathematical techniques.
- A wide range of mathematical vocabulary.
- A commitment to and passion for the subject.

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