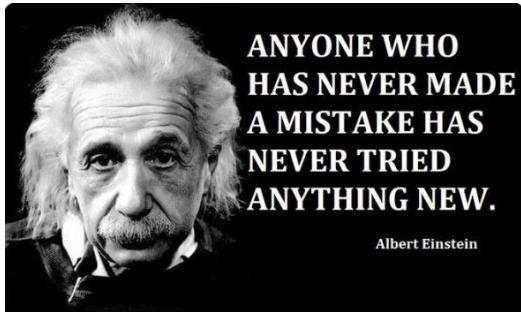


Mathematics at Bishops'

The Vision (*or intent...*)



The National Curriculum states that mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.



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The National Curriculum emphasises that maths is integral to everyday life. At The Bishops' we intend for all of our pupils to develop a positive and enthusiastic attitude towards the subject. By following the National Curriculum we empower children to:

Progressive through a series of small steps that are sequenced to allow progression to take place and for children to build upon their previous knowledge and understanding.

Be able to tackle and solve a wide range of mathematical problems, working systematically, methodically and accurately.



Deepen their understanding further through an ambitious and engaging age appropriate curriculum.

Successfully achieve in all lessons through effective differentiation, modelling and high expectations.

Explore mathematics through variation and real life contextual questions.

'A curriculum for the 21st century will reflect an understanding and acknowledgement of the changing nature of young people as learners and the challenges and demands that will continue to shape their learning in the future. Young people will need a wide and adaptive set of skills to meet the changing expectations of society and to contribute to the creation of a more productive, sustainable and just society.' (ACARA, University of Melbourne. 2009)

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How Maths is Taught (or *implemented*)

At The Bishops':

The national curriculum objectives are encompassed in the White Rose guidance and these are implemented alongside the NCETM guidance and Power Maths materials.

The White Rose yearly overview, medium term and small steps planning are used to inform the daily teaching so that the needs of all children are met. This planning format is used to ensure that each objective builds upon the previous and allowed opportunities for revision and extension. It means all children will receive the full national curriculum across the course of the year and there are not gaps in age expectation. Alongside the school's calculation policy, this ensures that there is a consistent approach to teaching across all year groups.



We are committed to all children mastering mathematics and do this through the NCETM's 5 Big Ideas. All maths lessons contain elements of practice, fluency, reasoning and problem solving, and all children are given the opportunity to succeed in these areas over the course of each objective.

Mathematics 'working walls' are in each classroom to provide key information, vocabulary and modelled examples.

The whole class is taught together, unless there is strong reasoning not to, and children are allowed to naturally progress within the lesson. Children who struggle to keep pace with the whole class teaching are identified and supported during the lesson or/and at the next available opportunity so to access any future teaching. Predetermined children can be identified as benefitting from pre teaching to ensure the greatest opportunity is given for them to be successful.

The White Rose 'Flashback 4' starter activities are used at the beginning of each lesson to revisit learning from the previous day, week, month and term to ensure children's knowledge is consolidated.

These are tailored by the teacher to meet the needs of the pupils in accordance with their assessment. The White

Rose 'End of Block' helps to identify any areas of need.



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Concrete manipulatives and pictorial representations are used particularly at the beginning of objectives to support conceptual understanding. These are consistently available to all pupils and woven in to the teaching at different stages of the lesson.

Teachers use mathematical talk in class and these often arise from the White Rose planning materials. These provide stem sentences that are integral to children's knowledge, understanding and retention.

A range of reasoning resources, e.g. NCETM, White Rose, Power Maths & NRICH, are used to challenge all pupils and give them the opportunity to reason using their understanding. These provide opportunities for children to tackle misconceptions in their learning, describe, represent, explain and formulate their own examples. These are all woven in to daily teaching.

Opportunities for self-assessment are provided daily so children are given instant feedback in their learning.

Marking and feedback is provided throughout the lesson and teachers regularly check books to identify any support that needs to be in place and inform subsequent teaching.

Homework is set to develop and review pupils' learning providing an opportunity for children to further hone their skills independently.

Times Table Rock Stars is used to drive children's knowledge of their multiplication tables.

Children are formally assessed on a termly basis.

Where possible, links are made with other subjects across the curriculum.



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What is the *Impact* of all this?

The teaching at The Bishops' ensures:

All children develop a love of mathematics, are resilient, creative and can collaborate in lessons.

Children can confidently verbalise their reasoning, knowledge and explain their understanding to others forming their own questions and dealing with a range of varied problems.

Children are aware that success comes through failure and they are therefore willing to take risks in their learning and are open to challenge.

Children can use and apply mathematics in a range of real life contexts.

Children have a high standard of fluency especially in Number.

Teaching, marking and assessment make certain of children's progress and informs future practice.

Children are achieving age related expectations in maths at the end of their cohort year.



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