School Vision Statement

Tenbury Primary Academy is a welcoming, inclusive and nurturing family with Christian values at our core. We are dedicated to promoting friendship, compassion and respect to enable everyone to flourish. With courage and perseverance we aim to be the best that we can be.

'Therefore encourage one another and build each other up.'

Thessalonians 5:11

Mathematics at Tenbury Primary Academy

CURRICULUM INTENT	Tenbury Primary Academy Curriculum Intent **The vision for our curriculum is to equip children with the skills to be safe, confident and creative, inspire them to ask questions and explore possibilities about their changing world and enable them to make a positive difference in both our local and global communities of the future. Staff and pupils will achieve this together, supporting each other along the way, working collaboratively and encouraging one another to be reflective thinkers.** At Tenbury Primary Academy we encourage children to develop a positive attitude towards mathematics and problem solving as mathematicians in their own right. 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.

What Mathematics looks like in our School

- Inspiring and challenging lessons
- Children working independently, in pairs and in small groups
- Children who are responsible, competent, confident
- Children confidently using a range of models, images and concrete resources to support their learning journey
- Opportunities for critical thinking, problem solving and reasoning
- Concrete maths resources easily accessible in each classroom
- Maths working walls that are used as a tool for learning each week.
- Vocabulary on display
- Problem solving language displayed and modelled
- Models and images used regularly

By the end of EYFS pupils will:

- Develop a strong grounding in number which is essential so that all children develop the necessary building blocks to excel mathematically.
- Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers.
- Develop a secure base of knowledge and vocabulary from which mastery of mathematics is built.
- Experience rich opportunities to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.
- Develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

By the end of Key Stage 1:

- All pupils develop confidence and mental fluency with whole numbers, counting and place value.
- Working with numerals, words and the four operations, including with practical resources, for example, concrete objects and measuring tools.
- Children develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary.
- Teaching involves using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.
- Each year pupils will have learnt specific number facts.
- Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at Key Stage 1.

By the end of lower Key Stage 2:

- Pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value.

- Pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.
- Pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value.
- Teaching ensures that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them.
- It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.
- By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 times table and show precision and fluency in their work.
- Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

By the end of upper Key Stage 2:

- Pupils extend their understanding of the number system and place value to include larger integers.
- Develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.
- Pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation.
- Pupils are introduced to the language of algebra as a means for solving a variety of problems.
- Teaching in geometry and measures should consolidate and extend knowledge developed in number.
- Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.
- By the end of Year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.
- Pupils should read, spell and pronounce mathematical vocabulary correctly.

CURRICULUM IMPLEMENTATION

This is how it works:

- Learning provided through daily maths lessons
- Daily maths 'keep up' lessons to clear up misconceptions
- Clear progression of skills developed throughout school
- Clear calculation progression throughout the school
- Progression of knowledge developed each year

This is what adults do:

- Teachers work collaboratively to support each other in the teaching of mathematics, understanding and applying current developments in the subject, and providing direction for the subject in the school.
- Teachers show enthusiasm for the subject regardless of personal capabilities
- Curriculum leader evaluates the strengths and weaknesses in the subject and indicate areas for further improvement.
- Create a positive learning environment to encourage discussion and personal opinion
- Ensure an emotionally safe working environment, where children are not afraid to make mistakes

This is how we support:

We teach mathematics to all children, whatever their ability, in accordance with the school curriculum policy of providing a broad and balanced education to all children.

- Teachers provide learning opportunities matched to the needs of children with learning difficulties.
- Small group or 1:1 where needed
- A range of equipment and resources so children can make progress
- Teachers provide learning opportunities matched to the needs of children with learning difficulties.
- Different technologies are used to allow children with special educational needs to have access and contribute to lessons.
- Specific interventions planned for them.
- Daily maths 'keep up' sessions are available for all children who have struggled.

	This is how we challenge: • Additional activities to stretch learning or develop skills • Online resources that challenge children in school and at home This is how we ensure all children can access the curriculum: • EAL and SEN children are introduced to vocabulary before the lesson, where appropriate • Peer support • Providing equipment that may support individuals • Pre-teaching where appropriate
CURRICULUM IMPACT	This is what you might typically see: • Happy and engaged learners • Children making decisions about the strategies they will use • Children demonstrating transferable skills, knowledge and expertise • Lessons which are, creative and fun, fostering a love of learning • Children demonstrating a rich vocabulary • Curious children who ask questions and take part in discussions • Children who understand the importance of making mistakes and persevering to work through problems • Confident children who are willing to persevere This is how we know how well our children are doing: • Informal judgements based on observation during lessons. • End of unit assessments • End of term assessments • Annual assessments in line with the National Curriculum in England 2014 • Summative assessment discussed during transition meeting with next class teacher • Weekly times tables tests in KS2 • Times Table Rockstars data • Numbots data

This is how mathematics contributes to the spiritual, moral, social and cultural development of the child:

- Developing deep thinking and questioning the way in which the world works, promotes the spiritual growth of our pupils.
- Pupils are always encouraged to delve deeper into their understanding of mathematics and how it relates to the world around them.
- Sequences, patterns, measures and ultimately the entire study of mathematics was created to make more sense of the world around us and enable each of our pupils to use maths as a tool to explore it more fully.
- Pupils are able to experience the awe and wonder of mathematics in science, the arts and nature.
- Problem solving skills and teamwork are fundamental to mathematics, through creative thinking, discussion, explaining and presenting ideas. Students are encouraged to develop their mathematical reasoning skills, communicating with others and explaining concepts to each other.
- Self and peer reviewing are very important to enable pupils to have an accurate grasp of where they are and how they need to improve. Working together in pairs or groups and supporting others is a key part of maths lessons.
- Pupils are always guided and instructed in valuing others' opinions and ideas; this extends to consideration for others in all aspects of life.

Cultural Capital:

At Tenbury Primary Academy we believe that all children should have the same opportunities to succeed in life. We believe that all children should become competent mathematicians so that as adults, they are able to function in a digital and mathematical world. Pupils know that whatever roles they choose as adults for children should be in their grasp and a mathematical competency should enable and not hinder this. We know that not all children have the same support in life, so we target children who may need extra to ensure they achieve.

This is the impact of the teaching:

At Tenbury Primary Academy you will see confident mathematicians who understand the need for these skills in life. They refer to themselves as mathematicians and can draw on strategies to find answers to problems. During maths lessons you will see children working individually, in pairs or small groups to achieve success. They will be able to use various models and images and will confidently be referring to the interactive maths displays and working walls in the classroom.