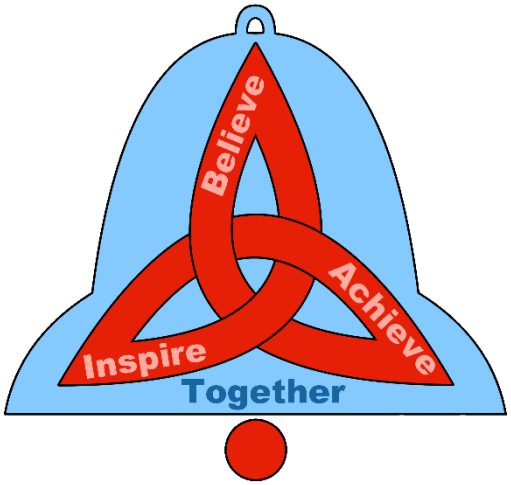
Weston Turville CE School



MATHS POLICY

Co-ordinator	**Mrs M Dickinson**
Policy produced by	**Mrs M Dickinson**
Policy reviewed by	
Policy agreed	**Spring 2022**
Adopted by Staff	**Spring 2022**
Adopted by Governors	**Spring 2022**
Next Review Date	**Spring 2026**

Intention

"Mathematics is a creative and highly interconnected discipline that has been developed over the 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 mathematical 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." (*The National Curriculum, 2014*)

At Weston Turville CE School our primary intention is to motivate and engage the children; to inspire a love of, and self-confidence in Maths, to ensure that all pupils become fluent in the fundamentals of mathematics, reason mathematically and solve problems by applying mathematical knowledge.

Our intent is that each child has:

- An understanding of the important concepts and an ability to make connections within mathematics.
- A belief that they are good at maths.
- 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.

Implementation

The programmes of study for mathematics are set out year-by-year for key stages 1 and 2. We ensure full curriculum coverage and this is implemented using a range of teaching strategies which promote confidence and mental fluency with numbers.

- All children have regular opportunities to explain their reasoning verbally, in sentences, using correct vocabulary with an adult on a 1:1, through talk partner activities and in whole class learning.
- Guided group work is used as a way to develop in-depth dialogue with groups of pupils. Children making below expected progress or those falling below the expected level are involved more frequently in these guided group work activities, which may be lead by teachers or teaching assistants.
- The classroom culture is about developing understanding, uncovering errors and misconceptions, and discussing methods, strategies and techniques. Children are encouraged to view uncovering errors and misconceptions as key opportunities to learn.
- Teachers know which pupils are falling below expectations. They have well defined strategies through which they are seeking to accelerate their learning.

- More able pupils who have already mastered or quickly master the expected level within a unit of work are provided with opportunities to broaden, enrich and deepen their knowledge. Time is not wasted revisiting 'easy' work.
- Planning and teaching is informed by the principle 'Concrete to visual/pictorial to abstract'. Teachers use a range of concrete and visual resources when developing concepts.
- The learning environment supports and stimulates current learning in mathematics including a working wall. In particular children can find things that will help them with current work when they are stuck. Children are trained to use the learning environment.
- Children respond to feedback and find this process helpful as they engage with the next steps in their learning.
- Teaching assistants have effective learning conversations in all phases of lessons with individuals, pairs and groups. Classroom teaching assistants work with children from across the attainment spectrum.
- To assist children with recall and developing deeper understanding, Teachers provide opportunities for consolidation and revision of key concepts and skills.
- All children have regular opportunities to engage with open and rich mathematical activities including investigations.
- Teachers work with children on developing efficient methods of written and mental arithmetic best suited to their ability.
- It is the children's 'job' to learn mathematics. Teaching promotes independence and responsibility e.g. by using the 'Five Bs' of Brain, Book, Boards, Buddy and Boss and ideas about Growth Mindset.
- Teachers increasingly use new teaching methods being imported from other successful education systems e.g. the bar method, part-part-whole diagrams, ten frames.
- Parents are encouraged to support their children with home learning and are informed of the methods used in our maths lessons.

Impact

We assess the children's knowledge of maths through observations, continuous oral questioning in lessons and by evaluating written evidence in the children's exercise books. To ensure the progress of each individual child, formative assessment through marking and individual target setting are carried out. Termly assessment tests are carried out in Key Stages 1 and 2. Children carry out regular times tables and written arithmetic tests. Progression is tracked and recorded as the child progresses through each academic year and throughout the school.

The monitoring of maths teaching and pupil progress is the shared responsibility of teachers, subject leader and the senior leadership team. The work of the subject leader includes supporting colleagues in the teaching of maths, keeping up to date with current developments as well as providing a strategic lead and direction for the subject. The school's governing body receive regular updates to inform them of the vision for continually driving forward teaching for mastery. Within school we regularly conduct peer review sessions whereby we critically look at maths as a subject within the school. We observe lessons, speak to children/staff, analyse books/marking and ultimately come together as a staff to critique what we are doing well and what we want to improve.

The Early Years Foundation Stage

We teach mathematics in our Foundation Stage through play and activities. This becomes more formal as the children progress through Nursery into Reception. We relate the mathematical aspects of the children's work to objectives based on the statements in the non statutory guidance in Development Matters and Whiterose Maths Scheme and these underpin the curriculum planning. We assess each child against their access to the curriculum and progress towards meeting the Early Learning Goals.

We give all the children ample opportunity to develop their understanding of number, measurement, pattern, shape and space, through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

Developing a strong grounding in number 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. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children 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."

(Statutory framework for the early years foundation stage)

Inclusion

Positive attitudes towards mathematics are encouraged, so that all children, regardless of race, gender, ability or special needs, including those for whom English is a second language, develop an enjoyment and confidence with mathematics. In line with the School's SEND Policy each child will have an equal entitlement to all aspects of the Maths curriculum and to experience the full range of Maths activities. Therefore, in delivering Maths, care will be taken to ensure that a variety of learning styles are accessed and teaching methods adopted. Intervention groups will take place both within the Maths lesson and outside; these sessions may be delivered by the teacher or teaching assistant and may involve individual or small group work, accessing both ends of the learning spectrum.

This policy should be read in conjunction with the following school policies:

- Calculation Policy
- Assessment Policy
- Marking Policy
- SEND Policy
- Equality Policy