

Intent - At Westwood First School, our Mathematics teaching ensures that all children are fluent in the fundamentals of Mathematics, are able to reason mathematically and can apply their knowledge to solve problems. These progressive skills are embedded within Maths lessons and are developed consistently over time. We are committed to ensuring that children are able to recognise the importance of Maths in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts. We want all children to enjoy Mathematics and to experience success in the subject, with the ability to reason mathematically.

Implementation - The intended skills are taught to the children following the teaching sequence as set out by the White Rose Maths Hub, with a large emphasis placed on the Number and Place Value objectives that underpin all other learning. Teachers reinforce an expectation that all children are capable of achieving high standards in Mathematics and the large majority of children progress through the curriculum content at the same pace. The lesson sequences include a variety of elements:

- **Concrete, Pictorial, Abstract approach (CPA)**
 - **Concrete** – the use of practical apparatus to model a concept. This could be objects as discussed within the problem, for example flowers, toys, cars and so on or it could be mathematical equipment such as Dienes, counters, cubes etc.
 - **Pictorial** – the children progress onto representing the practical apparatus with pictures which encourages children to make a mental connection between the physical object and the mathematical.
 - **Abstract** – once a child has demonstrated that they have a solid understanding of the ‘concrete’ and ‘pictorial’ representations of the problem, the teacher can introduce the more ‘abstract’ concept, such as mathematical symbols.
- **Variation** – lessons and examples/questions within lessons are carefully chosen to support the children’s understanding.
 - **Conceptual variation** - different representations of the same idea to strengthen their understanding of a mathematical concept e.g. Helping a child to understand about the ‘sixness’ of 6 through being exposed to the number in a range of different representations.
 - **Procedural variation** - choosing to vary one aspect to expose a mathematical structure or connection e.g. structuring the learning of number bonds of 6 in a way that encourages children to think mathematically, see patterns and make connections.
- **Differentiation** - There is no differentiation in content taught, but the questioning and scaffolding individual pupils receive in class as they work through problems will differ, with higher attainers challenge. This does not apply to children who have an additional educational need as their learning will be tailored to their level of understanding.
 - **Scaffolding** – providing children with additional frames or apparatus to support their learning.
 - **Challenge** – providing children with more demanding problems which deepen their knowledge of the same content.

Teachers use careful questions to draw out children’s discussions and their reasoning. Independent work provides the means for all children to develop their fluency further, before progressing to more complex related problems and exploratory, investigative tasks in which they can reason about and explain their understanding.

Impact – The children’s progress in Maths is monitored within and after each lesson, and interventions or pre-teaching is completed for those children who need it. We measure their progress using standardised tests such as PUMA maths papers, and our MAT assessment system. Additionally, we measure the impact of our curriculum through work scrutiny, reflecting on standards achieved against the planned outcomes and pupil discussions about their learning. Moderation occurs within the school as well as across the Academy Trust to ensure consistency and accuracy of judgements made.

How maths links to our school aims

Aims: We encourage all children to become confident, independent individuals who have a thirst for learning and achievement, compassion and understanding for others, and the courage to stand up for what is right. We are a Rights Respecting School and everything we do is based on the principles of equality, dignity and respect . We ensure that children's talents are nurtured and they are able to thrive so that they have the best chance to lead happy, healthy lives and to be responsible, active citizens.						Values: kindness and respect, honesty and courage, curiosity and creativity	
Positive relationships	Thoughtful, polite considerate	Strong principled leaders	Supportive team players	Embrace challenge	Ambitious aspirations	Resilience	Mental, emotional health and happiness.
Strong home/school partnership	Local community, heritage, environment, culture,	Citizenship and British values	Understanding of the wider world	Respect and celebrate diversity	Understanding of environmental issues	Confident to voice opinions	Change the world for the better

Maths links:

- Thirst for learning and achievement,
- Nurturing talents
- Curiosity and creativity
- Supportive team players
- Embrace challenge
- Ambitious aspirations
- Resilience
- Strong home/school partnership
- Local community, heritage, environment, culture
- Understanding of the wider world
- Change the world for the better
- Responsible, active citizens

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