

Maths at Wortham Primary School

At Wortham Primary School, we believe that Maths should be fun, clear and challenging. We aim for every child to move on from our school with a love of Maths and a deep grounding the basics needed to progress and succeed.

We plan and teach our Maths lessons using two structures:

- The White Rose Scheme of Work
- Our School Calculation Policy

What is White Rose Maths?

White Rose Maths is an organization that provides maths resources and schemes of learning for pupils of all ages, from early years to secondary school. These schemes of learning and resources are designed to be enjoyable, engaging and varied, to help children develop a love of learning and work towards **mastery**.

The White Rose Maths approach to teaching is based around the motto, '*Everyone Can Do Maths: Everyone Can!*'. Here at Wortham we wholeheartedly agree with this slogan and it reflects our own school motto, 'Together We Achieve'.

White Rose's aim is to support teachers and parents all over the UK in helping children work towards maths mastery and change attitude towards this subject by encouraging a growth mindset in both teachers and learners. Adopting a White Rose Maths approach to teaching means making sure all children have the same opportunities to learn and the support they need to fully grasp concepts.

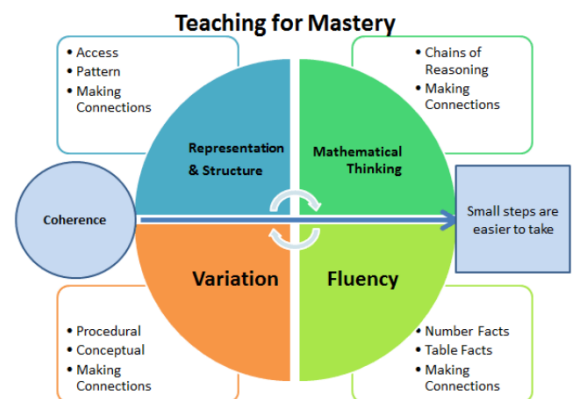
The philosophy behind White Rose Maths also focuses on making maths fun for children and helping them to find enjoyment in number problems and explaining their mathematical thinking. Because when children are engaged in learning and enjoying maths, that's when lessons really sink in and deep learning happens.

Why White Rose?

The reasons we chose the White Rose Maths Primary Scheme of Learning are as follows:

- White Rose uses the CPA approach (Concrete, Pictorial, Abstract), which is a highly effective approach to teaching which develops a deep and sustainable understanding of maths in children. CPA was developed by American psychologist Jerome Bruner. It is an essential technique within the Singapore method of teaching maths for mastery.

- There is a great emphasis on mathematical **language, questioning, explaining, reasoning** and **problem solving**. This allows children to talk about the mathematics they are doing, support each other to take ideas further, and develop a broad and secure understanding.
- It provides a connected, progressive curriculum, aiding the development of carefully sequenced lessons (see more below on progression within the scheme).
- It develops the skills of teachers, without interfering with professional judgement by being over perspective.
- The curriculum is designed to use skills that have already been learnt in different contexts whenever possible. This helps pupils to remember and to make connections and links between different parts of the curriculum.
- It follows the mastery principles – spending longer on topics to help gain deeper understanding, making connections between different areas of mathematics and the wider curriculum, keeping the class working together on the same topic and a fundamental belief that, through effort, all pupils are capable of understanding, doing and improving at mathematics.
- It also recognizes that just spending a good chunk of time on a topic doesn't mean that all children will 'master' it the first time they see it, and that they need to see it again and again in different contexts and in different year groups to help them truly develop their understanding on their journey to mastery. At Wortham Primary School we have developed this opportunity further by including daily Maths Meetings into our time tables. A Maths Meeting is a short session, delivered at a different time of the day to our maths lesson and focuses on revisiting and consolidating learning in other areas to that taught in the main lesson.
- It is a curriculum that is ambitious and that works for all, with everybody studying the same topic and being provided with support and challenge as needed. Many of the teaching strategies we advocate for all children are particularly useful for our children with SEND.



The Impact White Rose will have on our Children

- Children will understand how to use resources to support their learning
- Provides consistency in the methods taught across the school for your child to access
- It will challenge them to grow as mathematicians
- Supports children in the lead up to their SATs

- Children will be able to articulate their ideas clearly and represent their working in a range of ways
- It will help our children here at Wortham to become confident mathematicians who enjoy maths

Using White Rose at Home

We understand that many parents feel like maths has changed and can sometimes find it difficult to keep up to date with modern teaching methods in maths. Therefore, White Rose have teamed up with TV presenter, teacher and parent Michael Underwood to bring you a mini-series called Maths with Michael.

<https://whiterosemaths.com/maths-with-michael>

For teaching videos to compliment your child's learning in school, there is a wealth of videos for each year group on the White Rose website.

<https://whiterosemaths.com/homelearning>