

As mathematicians, our children will develop a deep conceptual understanding through exploration, reasoning and problem solving of all areas. We expect our children to explain and articulate their understanding and become fluent in number so they can use known number facts to make efficient choices with calculations.

They will make connections and discover patterns to take creative approaches when faced with challenges and show appreciation of the beauty and power of Mathematics. We aim to develop resilient learners and our children take time to deepen their understanding of mathematical structures through the use of resources and representations.

How we teach Mathematics

Our long-term planning document is the National Curriculum 2014 Programme of Study. This should always be a teacher's first starting point for reference, particularly the first two pages which highlight the 3 aims underpinning all Trust CPD, teaching and learning activity in mathematics.

Teachers use the **White Rose block overview** alongside the Power Maths calculation policy to organise the teaching sequences for maths in their class, which:

- Gives an overview of what is to be taught and when
- Provides a clear end goal for what children need to be able to progress in the next phase of their learning
- is based on age appropriate content to ensure children move through the curriculum at broadly the same pace
- supports the small steps in learning for each area of mathematics
- draws on key representations to use that support children to see and understand the structure of the mathematics

Any materials that are used to support learning and teaching pedagogy are interrogated by teachers, who consider why those specific examples have been chosen and how the representations expose the structure of the mathematical concept being taught. Teachers have the flexibility to supplement these resources with others, as they feel appropriate to the needs of the children.

In our aim to develop mathematical thinkers, a reasoning culture should be evident in every classroom: children expect to have to justify their answers, show their thinking, explain their methods and find more than one solution.

Our lessons start with an 'Anchor Task' which is low-threshold and gives the children the opportunity to think mathematically and address misconceptions. Vygotsky's work talks of rich discussion and peer talk and this is a fundamental part of this aspect of the lesson, as children talk and work together to internalise their thinking and restructure their thoughts.

We expect the majority of our children to move through the programme of study for their year group at broadly the same pace, respecting teacher's professional judgement in making decisions about readiness to progress to the next stage, although this will not be into new content from a year group above. Rapid graspers are challenged through rich and sophisticated problems and expected to demonstrate their reasoning, explain their thinking to others and be able to model the concept in more than one way to show a true depth of understanding and grasp of the topic.