

Maths Intent, Implementation & Impact 2022-2023

INTENT:

At Trannack Primary School we want all our children to view themselves as 'mathematicians in training' who approach maths with positivity and resilience.

We create learning environments that allow our children to feel safe to take risks, make mistakes and have the freedom and time to learn from their errors; we aim to cultivate curiosity, enabling children to explore ideas, ask questions and understand that maths is all around them and an intrinsic part of life. We strive to ensure that our children are mathematically literate, and able to use a broad range of vocabulary to describe and discuss concepts and ideas. We ensure that our children develop fluency, problem solving and reasoning skills and can apply them confidently, both independently and collaboratively. We have high expectations and anticipate that all our children make at least expected progress while at Trannack, with a significant number making accelerated progress, and are pursuing attainment that is above the national average.

IMPLEMENTATION:

Our approach to teaching maths has the National Curriculum at its core, but we adopt principles from AET Maths and White Rose Maths. We use White Rose Maths as a launch-pad for covering the National Curriculum, following their blocks and 'small steps' approach as works best with our mixed age class dynamics.

- The AET focus on ensuring that children have a depth of understanding of each mathematical concept is one that we follow closely, using vertical differentiation and challenging children to apply their understanding to problem solving and reasoning – we ask our children to show that they have understood a concept before moving on to practise, explain their methods and then apply their understanding to more challenging tasks.
- A concrete-pictorial-abstract approach also provides children with a clear structure in which they can develop their depth of understanding of mathematical concepts.
- Children are also asked a wide range of questions during lessons, developing their mathematical talk and reasoning capabilities - correct mathematical vocabulary is used by all teachers and this is discussed with and explained to children who are then encouraged to use it independently when talking about maths. Vocabulary is displayed clearly on working walls and is referred to regularly.
- In addition to White Rose and AET, we pull resources from a variety of sources (such as Primary Stars [in KS1], Classroom Secrets, Twinkl and NRich) to ensure that children are given the most appropriate and challenging work. Fluency is developed through repeating, reinforcing and revising key skills, with all lessons beginning with an arithmetic starter (using simple resources, or tools on WRM). In addition, to further ensure a firm foundation in basic mathematical principles, our EYFS and KS1 children have focused lessons using Number Sense Maths. KS2 children develop their knowledge and understanding of multiplication and division facts through Times Table Rockstars.
- Investigative tasks are designed to allow pupils to follow lines of enquiry and develop their own ideas, explaining and proving their answers.
- Children work both collaboratively and independently when solving problems which require them to persevere and develop resilience.
- We will use high quality feedback, both written and verbal, enabling children to develop their understanding and practise skills further (this also informs our teachers' formative assessment). Post-unit quizzes/assessments are also used along with termly assessments as a means to further understand and develop children's learning.
- All children receive regular group support as part of their maths lessons, with further support timetabled regularly for individuals or small groups where a need is identified, especially for those with SEND.

IMPACT:

Children at Trannack will:

- View themselves as 'mathematicians in training', have a positive perspective on the subject and take pride in their maths work
- Have an excellent understanding of mathematical basics, including arithmetic
- Make at least expected progress and attain a level in line with their ability and potential
- Understand the place of maths in the world as a part of everyday life
- Be confident to explore, ask questions, make mistakes and have another go at problems
- Use mathematical vocabulary confidently and fluently
- Make sensible choices about the resources they choose to help them with their learning in maths lessons
- Be able to work both independently and collaboratively in maths lessons