



Mathematics Vision Statement

At North Star, we believe that mathematics is a vital life skill that helps us to make sense of the world and to fulfil our potential academically and professionally.

Teaching of maths at North Star reflects the aims of the 2014 National Curriculum and EYFS Statutory Framework, which are to:

- become **fluent** in the fundamentals of mathematics, developing a conceptual understanding and a rapid and accurate recall and application of mathematical principles
- **reason** mathematically by investigating, making connections and using mathematical language
- **solve problems** by applying their mathematics to a variety of routine and non-routine problems, set in different contexts and with increasing sophistication

To achieve this, we will

- follow the White Rose Maths curriculum structure, studying the fundamentals of maths (eg. number, place value and proportionality) in depth
- provide daily opportunities for the development of fluency, including through the use of Tackling Tables and Rapid Recall Whiteboards
- develop conceptual understanding through the use of concrete resources and pictures/diagrams as well as abstract concepts (the 'CPA approach')
- use mathematical vocabulary consistently and accurately
- specifically address and teach misconceptions in all areas of mathematics
- include opportunities for fluency, reasoning and problem solving in lessons
- carefully set tasks to include conceptual and procedural, variation ensuring deep conceptual understanding and progress in small steps
- use a range of strategies (including in-lesson assessment for learning and summative tests) to identify areas for development of individuals and groups (including high attainers and those with SEN) and follow up on these
- use support and interventions to support a 'keep up, not catch up' philosophy
- expressly teach a range of problem solving strategies, including bar modelling
- encourage ambition and resilience through high expectations of all learners, and curiosity through making connections between areas of maths
- expressly plan for and provide opportunities for the use of ICT in maths and for the development of mathematics across the curriculum
- celebrate pupils' ambition, resilience and progress in maths through the award of certificates and badges in weekly celebration assemblies and newsletters, and through maths display boards