

Oak CE Primary School

Maths Curriculum Overview



Vision

Our aim at Oak CE Primary School is to develop a broad, balanced and engaging curriculum. Maths is essential to everyday life and provides a basis for understanding the world. We know that fluency is an essential foundation for success in mathematics, equipping children to then apply this to mathematical reasoning and unfamiliar problems. Knowledge and skills are built upon within each unit and will be continually revisited and embedded throughout their time at Oak. Our curriculum is constructed upon the fundamental principles outlined in the EYFS Framework and the National Curriculum.

We teach our children to:

1. Learn basic maths well by practicing regularly with increasingly complex problems to understand concepts deeply, and quickly recall and use them accurately.
2. Think like a mathematician by exploring ideas, making guesses, finding patterns, and explaining solutions using mathematical terms.
3. Solve all kinds of math problems confidently, breaking them into simpler steps and never giving up until finding a solution.

Teaching and Learning

We teach maths daily, recapping prior learning with which to build from. We use worked back examples and models to help children understand new concepts. Using concrete, pictorial and abstract ideas supports our children's understanding. Our sequencing is developed to ensure coverage and progression. We do daily arithmetic sessions, in addition to lessons, to help children with their recall and automaticity in number and place value. Number bonds and/or times tables are practiced daily from Y1 - Y5.

In Key Stage 1, maths teaching focuses on building confidence and quick mental skills with whole numbers, counting, and place value. This includes using numbers, words, and basic operations, often with equipment to support. Students learn to recognise, describe, draw, compare, and sort shapes, and use measurement words like length, mass, capacity, time, and money. By the end of Year 2, students should know how numbers up to 20 fit together and understand place value clearly. Regular practice helps with becoming fluent in these skills.

In lower Key Stage 2, maths teaching focuses on helping students become good at working with whole numbers and doing addition, subtraction, multiplication, and division. This includes learning number facts and understanding place value well. Students should be able to do calculations neatly and quickly. They should also get better at solving different kinds of problems, like ones involving fractions and decimals. Teachers will help them draw accurately and think logically about shapes and their properties. They'll also learn to use measuring tools accurately and see how measurement connects with numbers.

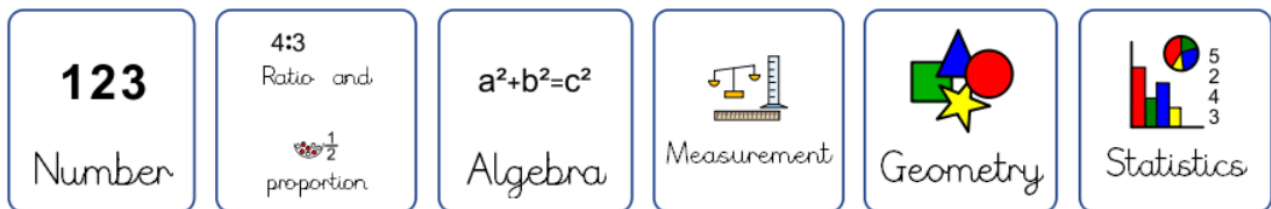
In upper Key Stage 2, maths teaching focuses on helping students understand bigger numbers and how they work. They'll learn how multiplication and division relate to fractions, decimals, percentages, and ratios. Students will get better at solving more complicated maths problems, including tricky number properties and calculations. They'll also start learning about algebra to solve different kinds of problems. Geometry and measurement lessons will build on what they learned about numbers. They'll also learn to recognize shapes with more complex properties and the words to describe them. By the end of Year 6, students should be good at using written methods for addition, subtraction, multiplication, and division, including long multiplication and division. They'll also be comfortable working with fractions, decimals, and percentages.

We believe that all children should have:

- A deep understanding of maths and number.

- A positive and resilient attitude towards mathematics and an awareness of the fascination of mathematics.
- Competence and confidence in mathematical knowledge, concepts and skills.
- An ability to solve problems, to reason, to think logically and to work systematically and accurately.
- A range of learning strategies: working both collaboratively and independently.
- Fluency in mathematics where children can express ideas confidently and talk about the subject using mathematical language.
- An understanding of the importance of mathematics in everyday life.
- Independent learners who take responsibility for their own learning.

Over their time at Oak they will build knowledge, skills and concepts in these areas:



Early Years Foundation Stage

Maths plays a pivotal role in EYFS. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. There is explicit teaching of maths with children then able to access further activities within provision. We provide opportunities for children to explore, experiment and discover mathematical concepts. We use manipulatives to develop a more secure base of knowledge and vocabulary.

Inclusion

We set high expectations of all our pupils to reach their potential. Children will have a belief that they can succeed in Mathematics and make good progress. Through maths, they are introduced to skills and thinking that are essential in everyday life. They will learn to explain and explore their ideas and develop the skills they need in life beyond. Regardless of ability, the same skills and concepts are made accessible through targeted support, thoughtful scaffolds, use of InPrint, and specific, authentic praise. Importance is placed upon the development of fundamental skills and understanding the core knowledge from each topic. Front loading our teaching with fluency and using worked back models, manipulatives and pictorial representatives supports children's learning.

Assessment

At the start of each lesson, the children recap prior knowledge which they will build on in that lesson. Formative assessment opportunities are identified throughout lessons and the within the scheme. We use summative assessments at the end of each term. We also use this assessment to inform our arithmetic sessions.