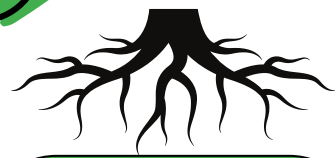


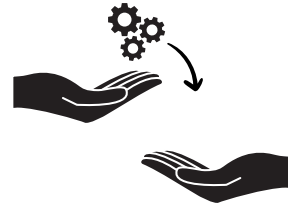
At Waterside we know that Maths is an essential life skill which helps children understand the world and enables them to think logically & problem solve.



Intent - We aim to...



Deliver a mastery curriculum that allows children to deepen their understanding of mathematical concepts through reasoning & problem solving



Provide children with essential number skills that will be life-long and help them succeed in the world.



Encourage children to see the significance of Maths and feel confident using Maths skills outside of Maths lessons.



Have high expectations of all children and support those who need help grasping concepts with manipulatives and scaffolded support.



Create a 'can do' culture in Maths lessons where children develop positive attitudes to Maths; feel they are able to achieve; and enjoy number work.



Implementation - How do we achieve our aims?

A consistent approach

At Waterside we follow the White Rose Maths scheme of learning, which is an ambitious, connected curriculum accessible to all pupils from Reception to the end of Year 6. This scheme allows us to teach mathematics through three broad concepts - fluency, reasoning and problem solving. Throughout Maths lessons, children will have opportunities to develop a range of key skills. This continued development of skills allows for more competence.



Key concepts



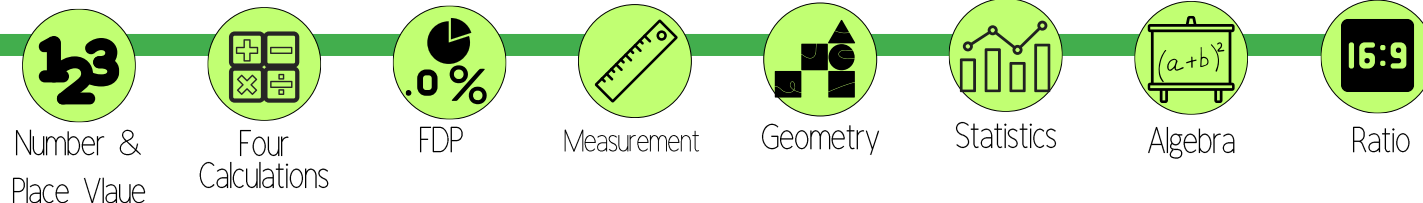
Key skills



Clearly structured learning

To learn mathematics effectively, some aspects have to be learned before others. For example, place value needs to be understood before working with addition and subtraction; and addition needs to be learnt before looking at multiplication (as a model of repeated addition). The White Rose Maths scheme supports this, by placing emphasis on number skills first. Across the key stages, a broad range of mathematics is taught through small steps.

Project drivers



Deep understanding of concepts

The White Rose Maths schemes of learning are designed to give sufficient time for teachers to explore and understand concepts in depth rather than covering them superficially and revisiting several times. This practice and consolidation helps children to grasp the links between topics and to understand them more deeply. Prior content is carefully interwoven with new content to help children grasp links between topics and to understand them more deeply.

Strong Foundations

In EYFS you will see...



Teaching is embedded within a language-rich environment & appropriate Maths vocabulary is introduced.



Children explore maths resources that they will use in KS1 e.g. Numicon, scales etc.



As children move into Reception there are more opportunities for them to work in adult-led groups, ensuring they are 'Year 1 ready'.



Children have access to opportunities to experience maths/numbers in everyday life



Daily Practice

Within KS1 and KS2 maths is an integral part of learning and is taught daily, carefully addressing the small steps in learning as set out in the White Rose scheme of learning.



Assessment

Nfer tests & past SATs papers (for Y2 & Y6) are used termly to monitor attainment against a national benchmark.



Implementation (continued)



Maths given a high profile

Maths takes a high profile across the school. In EYFS, classrooms has a designated Maths area for children to explore. In KS1 & 2, learning is celebrated in the corridors/displays; achievements are recognised in assembly; and, in KS1, dedicated maths zones are accessible for all.



Quality First Teaching

All teachers will have high expectations of all children. High quality, inclusive teaching is provided for every child. Learning is personalised to the individual needs of children and aims to narrow the attainment gap. Therefore the majority of children complete ARE work. For some this is scaffolded by resource/adult support; for others this includes an additional challenge.



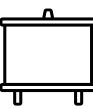
Manipulatives & visuals

Practical resources are used regularly in all classes, accessed by all children. Resources are carefully selected by teachers to best demonstrate mathematical concepts. Models and images enable children to 'see' and understand the maths they are being taught rather than a reliance on it to 'do' the maths. This will enable them to reason and problem solve more effectively. Key resources are identified for each year group to ensure a consistent and progressive approach through which children build on knowledge year-on-year.



Strong vocabulary development

Clear and consistent maths vocabulary is used in all classrooms. STEM sentences are rehearsed in lessons and children are encouraged to draw upon these to develop and describe solutions to problems.



Supportive learning areas

In all classrooms, Maths displays offer support by displaying key vocabulary, representations, stem sentences, teacher models & aide memories. In EYFS & KS1 estimation areas offer opportunities to develop number sense on a regular basis through counting & estimating everyday items.



Impact - How will we know we have achieved our aims?



Through consistent teaching and high expectations, children will become fluent in mathematical understanding and reasoning.



Children can confidently recall number facts appropriate for their age, such as number bonds and times tables, with most Year 4 children passing the times table check.



Children use mathematics in other lessons (particularly Science and D&T), demonstrating transferable knowledge and skills.



Children are helped to catch up and most children achieve expected standard or above in Maths at the end of KS2.



Children have positive attitudes to Maths and persevere in their learning. They see any mistakes as learning opportunities.



Mastery Model

Teaching draws on the Five Big Ideas, drawn from research evidence, underpinning teaching for mastery.

COHERENCE

Lessons broken down into small connected steps.

REPRESENTATIONS

Used to expose the mathematical structure being taught.

MATHEMATICAL THINKING

Thinking deeply about maths, reasoning and discussing ideas.

FLUENCY

Supporting fluency in number facts and mathematic procedures.

VARIATION

Learning practices thinking through standard & non-standard examples.

Teaching for Mastery

