



## Curriculum Statement: Maths

*“The essence of mathematics is not to make simple things complicated, but to make complicated things simple” - S. Gudder*

### The Courtwood Curriculum Intent and Offer

<p><b>National Curriculum:</b> Pupils learn the knowledge and skills required of them to be academically successful, building on their individual starting points</p>	<p><b>Inclusion:</b> Pupils value diversity and demonstrate tolerance, compassion and mutual respect to all members of the school and wider community, whilst developing the life-skills needed to unlock their potential</p>	<p><b>Nurture:</b> Pupils build their confidence, self-esteem and resilience, developing strategies which enable them to effectively safeguard their well-being</p>	<p><b>Outdoor Learning:</b> Pupils understand and take responsibility for their influence in living healthy lifestyles, and supporting the planet to be sustainable, both now and in the future</p>	<p><b>Responsibility:</b> Pupils have an awareness of their own impact on their future and how they can contribute positively to wider society</p>	<p><b>Enrichment:</b> Pupils access experiences and opportunities which develop aspirations and broaden the horizons of life-long learning</p>
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### Intent, Implementation and Impact in Maths

<p><b>Intent</b> (What will take place before teaching in the classroom? What do we want our children to know and be able to do?)</p>	<p><b>Implementation</b> (What will this look like in the classroom?) <i>*school focus – retrieval &amp; vocabulary</i></p>	<p><b>Impact</b> (How will this be measured?)</p>
<ul style="list-style-type: none"> <li>Children experience the power and enjoyment maths can bring.</li> <li>Through teaching maths at Courtwood, children start to gain a curiosity of the subject and to ask questions within their learning.</li> <li>Through in-depth teaching children adapt to a ‘can do’ attitude with maths and foster a positive attitude to challenges they face in mathematics.</li> <li>As a school we take a mastery approach to teaching maths, this approach enables all children to master the mathematics curriculum and draws inspiration from a range of sources.</li> </ul>	<ul style="list-style-type: none"> <li>Lessons are planned and sequenced so that new knowledge and skills build on what has been taught before.</li> <li>Teachers follow the White Rose Scheme of work to ensure all objectives and domains within the national curriculum are taught and understood by children.</li> <li>Children receive daily one hour maths lessons that involve clear teaching followed by students completing a range of fluency, reasoning and problem-solving challenges.</li> <li>Each lesson begins with the learning objective in a question form to immediately get the children thinking and reasoning.</li> <li>Teachers use a range of concrete, pictorial and abstract resources to aid the children to master</li> </ul>	<ul style="list-style-type: none"> <li>Through children’s books evidence of progression, build up of skills, reasoning and use of vocabulary is seen.</li> <li>Children’s resilience and confidence when faced with a challenge will be apparent. This will be due to the deep understanding they have with the foundations in maths that provides the building blocks to tackle any type of challenge or question.</li> <li>Through questions within lessons, children will show the ability to reason and confidently explain what they are doing.</li> </ul>



- Concepts are taught through manageable small steps which build on skills children have learnt.
- Our expectation is that the majority of pupils move through the programs of study at broadly the same pace. Decisions about when to progress will always be based on the security and depth of the pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly work on further challenge within the learning block rather than be accelerated through new content.
- Through teaching mistakes and misconceptions children begin to build resilience to the challenges they face within the maths curriculum.
- We want children to be able to recognise that maths is a life skill and that it is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world.
- Children have a fluent understanding of the fundamentals of maths which allows them to solve complex problems, develop arguments and identify relationships with maths. Through this, children are able to see that maths is an interconnected subject and children are able to make rich connections between each domain and objective.
- Children will gain a rich vocabulary of mathematical terms through every lesson and can use this through problem solving and everyday situations.

the objective in which they are learning. This can be seen in the following ways:

**Concrete** – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.

**Pictorial** – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.

**Abstract** – With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

- The main aim of all lessons is to develop children's knowledge, understanding and skills, applying these to a variety of contexts.
- As well as White Rose, teachers use the TCT Maths Framework to help understand misconceptions that can arise through objectives; the document also provides a range of questions that can help support children's understanding.
- Teachers have access to progression maps within maths to allow them to see the journey in which the children go on throughout primary school in each topic from the maths curriculum.
- Teachers plan which vocabulary will be explored within their lesson and ensure children begin using the correct vocabulary in day to day lessons.

- Children will begin to ask their own questions as their inquisitive minds within maths begin to form.
- Children will use previous learning to help them try and explore new objectives and will form links with each domain.
- After termly assessments, some sort of progress will be seen from all children.
- Within each class, discussions will be formed to analyse misconceptions within topics and for children to confidently understand how to correct themselves and why certain elements cannot work within maths.
- Children will leave Courtwood with an enjoyment of maths and a sense of curiosity for the subject to help them continue to progress in later years.



- Retrieval and practice of knowledge is key. After lunch every day children answer 4 questions that involve using a wide variety of skills and knowledge that children would have been taught in previous weeks. This allows children to retain information and for misconceptions to be seen by the teacher.
- Each week children complete quizzes from the 99 club. These quizzes expose children to a range of questions that are the foundations to all maths learning. E.g number bonds, place value, rounding and times tables. When a child achieves 100% in a quiz they then go onto the next level.
- White Rose Infinity programme on the ipads is used throughout the school as a tool for AFL as well as providing retrieval in a different format for all students in different areas of the maths curriculum.
- Pre-teach, precision teaching and other interventions are in place to help aid the development of key concepts and foundations within maths for those children that may need extra support and guidance.

## The National Curriculum for Maths

We follow the National Curriculum Programmes of Study for Maths at Key Stage 1 and Key Stage 2. These can be found here:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/335158/PRIMARY\\_national\\_curriculum\\_-\\_Mathematics\\_220714.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf)