



Curriculum – Maths

Intent ♦ Implementation ♦ Impact

Courage

Resilience

Honesty

Kindness

Matthew 7:24 - "Therefore everyone who hears these words of mine and puts them into practice is like a wise man who built his house on the rock"

Intent

At St. Nicholas-at-Wade Primary School, we believe that all pupils deserve a fully rounded curriculum to become confident, independent, lifelong learners. Our curriculum intent is centred around the following drivers, which are fully embedded across all subjects:

- Every child a reader
- Every child a learner
- Every child a citizen
- Every child happy and healthy
- Every child creative and curious.



At St Nicholas at Wade, our intent for the teaching of mathematics is deeply rooted in providing a comprehensive and rigorous curriculum that equips our students with the necessary skills and knowledge to excel in this critical subject. Our approach encompasses three key pillars: fluency, reasoning, and problem-solving.

Fluency is at the core of our maths curriculum. We aim for our students to have a solid grasp of key mathematical concepts and procedures, enabling them to perform calculations accurately and efficiently. Through regular

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practice and reinforcement, we strive to develop confident and competent mathematicians who can apply their skills in a variety of contexts.

Encouraging **reasoning** is another fundamental aspect of our teaching philosophy. We challenge our students to think critically, justify their methods, and make connections between different mathematical ideas. By fostering a logical and analytical approach to problem-solving, we empower our students to tackle complex mathematical problems with confidence.

Furthermore, we place a strong emphasis on **problem-solving** skills. We believe that the ability to apply mathematical concepts to real-life situations is essential. Our students are encouraged to explore problems from different angles, think creatively, and persevere when faced with challenges. This not only enhances their mathematical capabilities but also fosters resilience and determination.

In addition to academic excellence, our aim is to cultivate a **love of maths** among our students. We strive to make mathematics engaging, enjoyable, and accessible to all. By incorporating interactive and hands-on activities into our lessons, we aim to spark curiosity and enthusiasm for the subject.

We are dedicated to promoting the **real-world application** of mathematics. We demonstrate to our students how mathematical concepts are used in everyday life and various professions. This helps them understand the relevance and importance of maths in the wider world.

In conclusion, our intent for maths at St Nicholas at Wade Primary is to nurture well-rounded mathematicians who possess fluency, reasoning, and problem-solving skills, alongside a genuine love for the subject and an appreciation of its real-world significance. Through our holistic approach to mathematics education, we aim to empower our students to become confident, versatile, and resourceful individuals in the realm of mathematics and beyond.

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Implementation

At St Nicholas at Wade Primary, we pride ourselves on our commitment to delivering high-quality and adaptive maths education to our students. Our approach to teaching mathematics is influenced by the White Rose Maths programme, which aligns with the national curriculum standards while providing a deep and rich learning experience for our pupils.

Our curriculum is carefully designed to cater to the diverse learning needs of our students. We understand that each child learns differently, and therefore, our teaching methods are adaptive to ensure that every student receives the support they require to excel in maths.

Our dedicated team of teachers are not only well-versed in the White Rose Maths approach but also utilise a range of teaching strategies such as manipulatives, visual representations, and real-life problem-solving scenarios to engage and challenge our students

Central to the mathematics programme at St Nicholas at Wade Primary is the incorporation of daily *Rapid Retrieval* practice. This key component serves to consolidate prior learning by revisiting concepts covered in the previous term, the last topic studied, the previous week, and even the lessons from the day before. By engaging in regular quick-fire exercises and mental arithmetic challenges, students are able to reinforce their understanding of key mathematical principles and enhance their proficiency in mathematical operations.



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5 minutes **RR Rapid Retrieval**  

1. What is the length of the line?


2. 10 more than 552 is

H	T	O
5	5	2
5	5	2
5	5	2

3. $7 \times 3 \bigcirc 7 \times 4$

4. $18 \div 3 = 6$
 $180 \div 3 = \text{$

Challenge
 Max has 3 pencils. Sam has 5 times as many pencils.
 How many pencils has Sam got?

Quick Arithmetic
 $2 \times 14 =$

In addition to daily recall practice, St Nicholas at Wade Primary conducts weekly arithmetic quizzes to assess students' grasp of fundamental mathematical skills. These quizzes serve as a valuable tool for gauging students' ongoing progress and identifying areas that may require additional support or reinforcement. The questions included in the quizzes are carefully crafted to provide a comprehensive review of the topics covered, ensuring that students are thoroughly prepared for more advanced challenges.

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Step One: I do (Silent Teacher)

The teacher will work through the problem on the board without saying anything. The pupils will follow along and see if they can spot/explain the method being used.



Step Two: Step by Step

The teacher will repeat the process but this time provide a narration. They will also record a step-by-step list of actions needed to solve the problem



Step Three: Tick Trick

The children will be provided with a similar problem and asked to solve it independently. On completion, the teacher will go through each step and encourage the children to tick each part they get correct.



Step Four: Make Changes

Provide a new problem in which one (or two) key aspects have been altered. The children will then solve the new problem either in pairs or independently.

A hallmark of the mathematics curriculum at St Nicholas at Wade Primary is the **Meticulous Modelling** of mathematical problems and concepts. Teachers at the school devote time and attention to demonstrating the process of solving mathematical problems, guiding students through the steps and strategies involved. This modelling approach not only helps students develop a deeper understanding of mathematical concepts but also equips them with the necessary skills to tackle complex problems independently.

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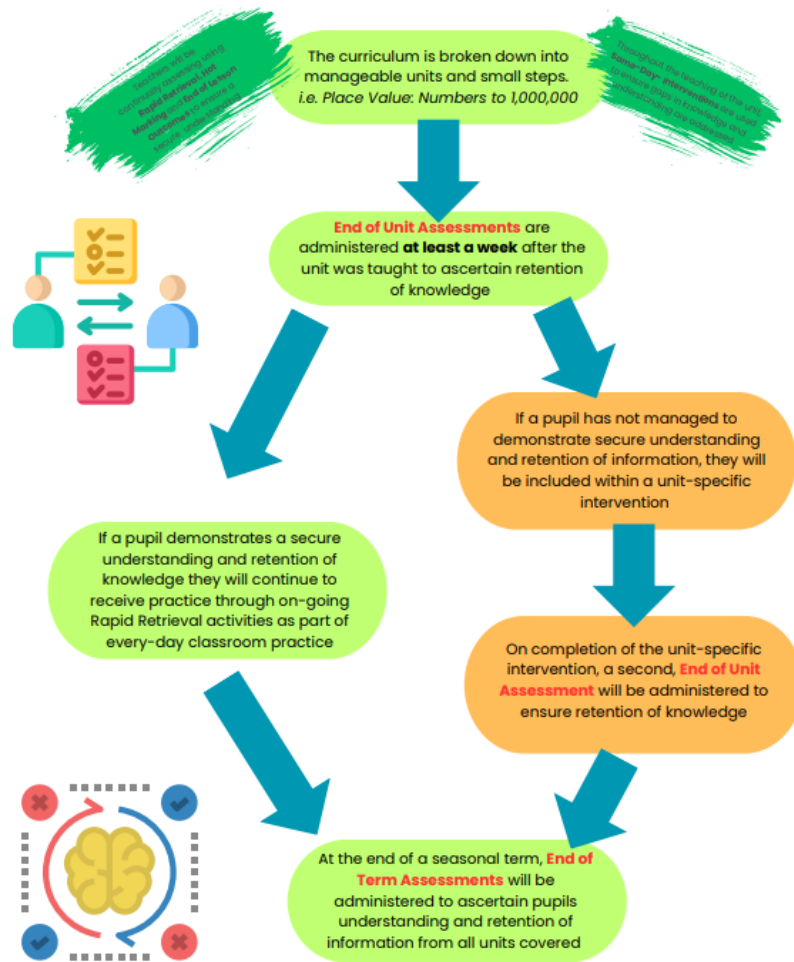
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Assessment Cycle



Furthermore, St Nicholas at Wade Primary places a strong emphasis on Assessment for Learning to inform the next steps in teaching and facilitate same-day interventions. Through ongoing formative assessments and targeted feedback, teachers are able to identify students' individual strengths and areas for improvement. This personalised approach allows for timely interventions to address any misconceptions or gaps in understanding, ensuring that students are supported in their learning journey.

To evaluate the effectiveness of teaching and learning, St Nicholas at Wade Primary conducts end-of-unit assessments within two weeks of the instruction to measure retention of knowledge and inform intervention strategies. These assessments provide valuable insights into students' long-term understanding of mathematical concepts and help teachers tailor their teaching approaches to meet the diverse needs of learners. By emphasising a comprehensive and reflective approach to assessment, St Nicholas at Wade Primary ensures that students are equipped with a solid foundation in mathematics and are prepared for future academic challenges.

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We utilise resources such as MyMaths and Times Tables Rockstars, which offer interactive and enjoyable ways for children to practice essential skills at home. Additionally, Diagnostic Questions provide instant feedback, allowing our students to identify and address any gaps in their understanding.

By thoughtfully integrating these tools into our maths curriculum, we empower our pupils to take ownership of their learning. Our approach not only builds their confidence in maths but also fosters a positive attitude towards the subject, ensuring they are well-prepared for future challenges.



At St Nicholas at Wade Primary, we're dedicated to making maths engaging and accessible for every child. To support our diverse learners, including those with special educational needs and disabilities (SEND), we have tailored provisions in place. Our bespoke same-day interventions ensure that if a student struggles with a concept, they receive immediate support, helping to boost their confidence and understanding.

We also incorporate precision teaching techniques, which allow us to track student progress closely and adapt resources to meet individual needs effectively. Our use of Dynamo Maths further enriches the curriculum, providing a fun and interactive way for pupils to develop their skills. By focusing on each child's unique learning journey, we aim to foster a love for maths that equips them with the confidence to tackle challenges head-on.

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In conclusion, the implementation of mathematics at St Nicholas at Wade Primary is characterised by a rigorous and structured approach designed to foster a deep understanding of mathematical concepts and enhance students' problem-solving skills. Through a combination of daily recall practice, weekly quizzes, careful modelling of questions, Assessment for Learning strategies, and end-of-unit assessments, the school is dedicated to providing students with a high-quality mathematics education that promotes academic excellence and lifelong learning.

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Impact

At St Nicholas at Wade Primary, our maths programme is designed to inspire confident mathematicians who develop a genuine love of the subject. We believe that when children engage with maths in a fun and meaningful way, they not only master essential skills but also cultivate a lifelong appreciation for the subject.

Our dedicated staff work tirelessly to create a nurturing environment where pupils feel encouraged to explore mathematical concepts through hands-on activities and real-world applications. This ensures that children recognise the significance of maths in everyday life, whether it's calculating costs during a shop visit or understanding patterns in nature.

We celebrate the diverse ways children learn and express their understanding of maths. Our approach emphasises reasoning and problem-solving, allowing students to tackle challenges with confidence and creativity. We regularly observe our pupils collaborating and sharing ideas, which not only enhances their understanding but also fosters a sense of community.

Subject leaders evaluate the impact of our curriculum through dedicated 'Subject Weeks'. During these weeks, leaders engage in a comprehensive examination of their subjects, which includes book scrutiny, observing teaching, tracking planning, and conducting pupil conferencing. This thorough approach enables leaders to ascertain the effectiveness of the planned curriculum in enhancing pupils' knowledge, understanding and outcomes in line with the endpoints. The process provides a 360-degree perspective on the intent behind the curriculum, allowing leaders to make informed decisions and strategically plan for subsequent steps to optimise educational outcomes for all students.

Through engaging lessons and a clear focus on practical application, we aim to instil in our students the belief that they are capable mathematicians. As they progress through their education, we hope they will carry forward

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their enthusiasm for maths, appreciating its value beyond the classroom. At St Nicholas at Wade Primary, we do not just teach maths; we empower the next generation to see it as a vital part of their futures.

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