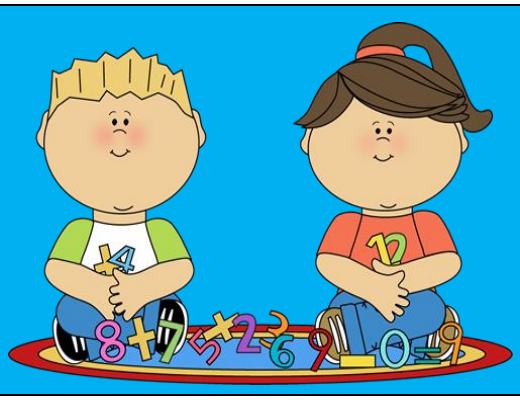
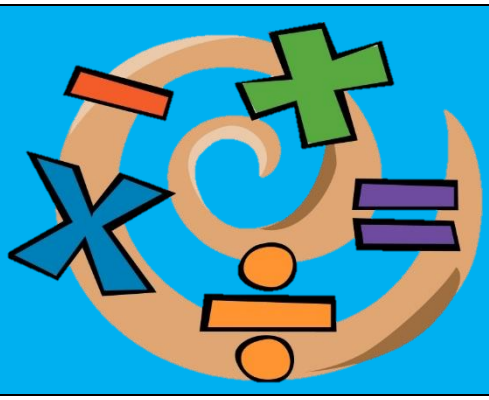


Maths

Curriculum Statement



Intent

Our Maths curriculum is based on the 2014 National Curriculum and aims to make sure that all children are fluent in the fundamentals of mathematics, are able to reason mathematically and can solve problems by applying their mathematical knowledge. We strive to ensure that our children understand how mathematics applies to the wider world by making connections throughout maths lessons so that children are able to apply their skills and knowledge to a variety of different contexts, both in school and in their daily lives. We also recognise the importance of building our children's mathematical vocabulary. We are committed to developing the children's confidence and enjoyment of mathematics along with a sense of curiosity around the subject.

Implementation

We aim to provide a broad and balanced maths curriculum which delivers a deep understanding of concepts by following a concrete – pictorial – abstract approach to help develop children's knowledge of mathematical concepts.

To ensure a mastery approach to maths we use White Rose Maths from Reception to Year 6 and follow the small steps to progression, these allow teachers to easily monitor children's progress against the national curriculum. It is important to ensure children's understanding of each small step before moving on to guarantee a deep and lasting understanding. The expectation is that the majority of pupils will move through the small steps of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Children who require additional support will be given access to concrete resources and further adult support to help consolidate understanding. Children who understand a concept quickly will be given a challenge activity to encourage deeper thinking around the concept being taught.

Lessons will begin with a starter activity which will reinforce and consolidate concepts previously taught. Teachers will refer back to previous learning and share with the children how their learning will be developed and built upon in the next lesson so that facts and knowledge can be connected, rather than being taught in isolation. Time will be scheduled throughout the year to allow children to revisit prior learning so that they can consolidate their knowledge further. Deep learning should be encouraged to ensure children develop a strong and lasting understanding of concepts that can be built upon in future lessons.

Where teacher's feel that children may require further support in a topic, they may choose to pre-teach concepts to children working below expected levels or those who have been found to struggle with specific topics in previous year groups. These sessions are delivered by experienced staff to small groups in order to embed children's understanding of mathematical concepts throughout each topic. These sessions allow children to practise new skills and concepts before they are introduced in class allowing the majority of the class to demonstrate good understanding of a concept before progressing. To further reinforce children's learning and understanding additional catch-up sessions will be delivered to allow children who find a concept difficult or show misconceptions time to reinforce their understanding. These catch-up sessions will be delivered on the same day as the concept was taught where possible.

Pre and post topic assessments are completed in order to show progress and to highlight any knowledge gaps. Assessment records are completed at the end of each topic based on children's assessment data and teacher judgment in order to record which children are working below, at or above expected levels. Interventions are delivered when needed based on the knowledge and understanding children demonstrate in class and in end of topic assessments.

We feel that a secure understanding of multiplication and division facts and the ability to recall them quickly is a key skill for children to develop. Knowledge and understanding of times tables allows pupils to begin to notice patterns and enables them to apply this knowledge to more advanced work. By the end of Year 4, children at St. Mary's should be able to recall multiplication facts up to 12 x 12 in less than 6 seconds in line with the Multiplication Tables Check. Children are also taught to recognise the commutative nature of multiplication facts. Following the national curriculum, children are taught

the 2-, 5-, and 10-times tables in Year 2, the 3-, 4-, and 8-times tables in Year 3 and the 6-, 7-, 9-, 11- and 12-times tables in Year 4, however times tables learnt in previous year groups are regularly revised and referred back to.

Throughout St. Mary's we use a range of online learning programs and tools to support children with their learning. These include:

- Times Tables Rock Stars
- Numbots
- Education City
- Purple Mash
- Emile

These online learning programs allow children the opportunity to practise the skills and concepts they have been taught in a variety of ways both in school and at home. All children have unique logins for each of our online learning platforms and enjoy the game-based approach to consolidating learning that these programs offer.

Impact

Our children will develop a wide range of efficient and accurate mathematical skills which, due to our mastery approach, will allow them to be fluent in the fundamentals of mathematics and be able to apply their mathematical knowledge to a variety of problems. Children will be able to apply their mathematical skills to other areas and become resilient problem solvers who are able to reason effectively. Due to the teaching of mathematical vocabulary, children will be able to explain their ideas mathematically.

KS2 SAT Data	% Pupils Working Below Expected Standard	% Pupils Working at Expected Standard	% Pupils at Greater Depth
2018/19 (SATS Data)	0	100	52
2020/21 (Teacher Assessment)	10	90	50
2021/22 (SATS Data)	7	93	30

The end of KS2 data for 2019 show that progress and attainment in maths was significantly above the national average and was in the highest 20% of all schools with 100% of pupils achieving expected standard in maths in the academic years 2017/18 and 2018/19. In 2018/19 KS2 attainment was at the highest standard with 52% of pupils achieving Greater Depth which is significantly above the national average and is in the highest 20% of all schools in 2019. In the academic years 2021/22 the average scaled score was 107 with a progress score of +3.8.

End of Year 2 Data	% Pupils Working Below Expected Standard	% Pupils Working at Expected Standard	% Pupils at Greater Depth
2018/19 (Assessment Data)	14	86	21
2020/21 (Teacher Assessment)	20	80	-
2021/22 (Assessment Data)	14	86	14

At the end of Year 2 in 2018, 80% of pupils were working at expected standard and 14% were working at Greater Depth. In 2019, 86% of pupils were working at expected standard and 21% were working at Greater Depth. This data was based on end of year assessments. The teacher assessed data from 2021 showed that 24 out of 30 children, 80% of pupils, were working at expected standard and 4 children were on the cusp of achieving expected standard. In the academic years 2021/22 86% of children were working at the expected standard. This is the same as in 2018/19 which was the last year with assessment data before the interruptions to learning due to the pandemic. The percentage of children working at greater depth in 2021/22 was 14% which is lower than in 2018/19, but this is likely due to the disruption to learning during the pandemic which meant that children were unable to deepen their knowledge.

In the academic year 2021/22 our Year 4 children completed the Multiplication Tables Check. All 31 children scored 23 or above out of 25.

- 2 children scored 23/25 (6%)
- 5 children scored 24/25 (16%)
- 24 children scored 25/25 (77%)