

Maths at St Agnes CE Primary School

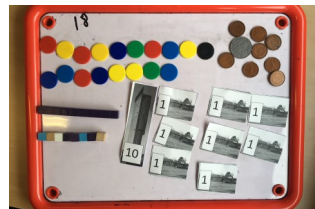


At St Agnes CE Primary School we provide an engaging and inspiring curriculum that promotes our core value of 'love to learn'. Based upon the needs of our children, families and the community, our curriculum aims to equip pupils in acquiring the cultural capital needed to flourish in education and beyond. We achieve this through a knowledge based and skills led approach, rich in language and vocabulary, supported through enriching experiences which allows all of our children to 'learn do well'. Pupils will leave St Agnes well prepared for the next stage of their education – enabling them to grow into active, responsible members of society 'living well together', in modern Britain.

Why we teach Maths

At St Agnes we believe that Maths is a tool for everyday living. It is a whole network of concepts and relationships that provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems. The reasoning skills developed through a rich mathematical curriculum are vital for the future lives of our children.

Across the school we follow a mastery approach because we are committed to ensuring that every child develops an understanding and love of Maths. This begins as early as Nursery and Reception, following the White Rose Maths scheme and using Numberblocks to make links to the EYFS curriculum. This works well alongside Maths No Problem and ensures Maths is taught consistently throughout the school. Our new scheme for KS1 and KS2 in September 2020, Maths-No Problem, develops the mastery approach further while ensuring coverage of the 2014 National Curriculum.



Children use a range of concrete resources to develop mathematical understanding

Why have we chosen Maths– No Problem ?

- It is a highly effective approach to teaching Maths based on research and evidence.
- It builds students' mathematical fluency without the need for rote learning.
- It introduces new concepts using Bruner's Concrete Pictorial Abstract (CPA) approach.
- Pupils learn to think mathematically as opposed to reciting formulas they don't understand.
- Teaches mental strategies to solve problems such as drawing a bar model.
- Endorsed by the Department for Education, NCETM and OFSTED.

How we teach Maths

From September 2020 EYFS will continue to use Number blocks and the White Rose Maths scheme, KS1 and KS2 will use the Maths– No Problem scheme to deliver the curriculum.

We have high quality teacher support materials that help to tackle potential inconsistencies. Teachers work with senior leaders, collaboration schools and the mastery Maths hub to ensure that the quality of teaching is consistent across classes. Our whole school professional development, including use of online video exemplification means that non-specialists can feel supported in all mathematical topics. Lesson guides help teachers to develop Mathematical reasoning by providing plenty of opportunities for pupils to investigate planned open questions that require them to sort and compare, seek patterns and look for rules. Teaching emphasises the importance of multiple representations; concrete, pictorial and abstract approaches to the teaching of mathematics. Depth of understanding is developed through pupils' being able to communicate using the correct mathematical language. We ask pupils to explain, justify and prove their ideas so that they are deepening their understanding of a concept.

We have high expectations for every child, spend more time on fewer topics and focus teaching on using mathematical principles to problem-solve. We promote a growth mindset and believe that all children can get better at Maths.

Our work with our local NCETM Maths Hub has allowed us to collaborate with other schools and colleagues and supported professional development at St Agnes.

What Maths looks like at St Agnes?

Implementing a mastery approach to Maths has had a considerable impact on teaching and learning at St Agnes.

KS1 attainment has been in line with national results at expected and higher standard for the past 3 years. KS2 have seen steady increases in attainment and are closing the gap with national results.

Progress, particularly for pupils who find Maths difficult, has been excellent in all year groups as a result of consistent, mastery teaching.

Quality assurance of pupil work, both internally and by visitors to the school, has found children making good progress and being given consistent opportunity to develop their reasoning and problem solving skills in Maths lessons.

Our school is a Maths rich environment and every classroom reflects this with working walls and Maths stations with resources to support learning.

Children enjoy learning Maths and are eager to share their learning with others. In our recent OFSTED inspection pupils told inspectors that Maths had "changed for the better".

Useful Resources

National Curriculum 2014

<https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study>

White Rose Maths (Reception)

<https://whiterosemaths.com/resources/schemes-of-learning/reception-sol/>

Maths No Problem

<https://mathsnoproblem.com/>

Times Tables Rockstars

<https://trockstars.com/>

"All pupils should become fluent in the fundamentals of mathematics, including through varied and frequent practice, so that pupils develop conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems."

National Curriculum 2014

"Using the Maths station helps me to solve hard problems."

Fariha 4C

"It's good when we get to talk about Maths because it helps me understand."

Sara 3T

"I like using the ten's frame, because I can see how many I need to add or take away when I'm doing number problems."

Hafsa RT