

White Rose Maths



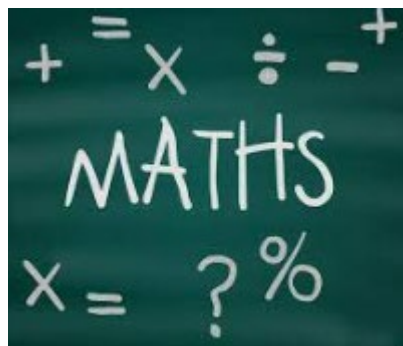
White Rose Maths is the basis of the scheme of learning used at Whiteways Primary School. It helps our children to develop their conceptual understanding of mathematics using concrete objects, pictorial representations and abstract thinking.

This provides our children with a solid foundation in mathematics from FS2 to Y6, and it is designed and delivered in a way that prepares them for their next stages of learning. Each year, pupils gain a deeper understanding of mathematics and they become more fluent in their work, so they can solve mathematical problems with confidence.

The curriculum puts a significant emphasis on mathematical skills, and therefore the curriculum content is sequenced to promote depth of understanding.

Through White Rose, our children become

- confident and able to recall and apply mathematical knowledge in different contexts,
- able to explain their methods and thinking processes and apply skills in context,



Mathematics at Whiteways Primary School



Skill Sharp



Why Skill Sharp?

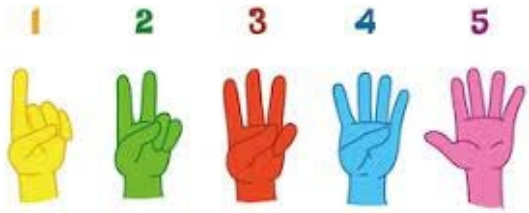
Children at Whiteways start their lessons with a daily Skill Sharp session. These provide an opportunity for our students to practice their fluency in areas of maths that have been previously taught or areas that have proven to be tricky (these may be cohort specific). The short sessions allow our children to recall and revisit mathematical knowledge, so that it remains relevant and embedded in their long-term memory.

What does this look like?

Depending on the age or stage of our children this may be carried out as a list of calculations to complete, revision of prior learning, counting, singing or a game.

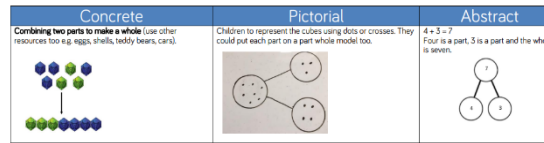
Counting

Counting is a crucial element of Skill Sharp, and it is carried out by practitioners working across the curriculum.

• fluent in different areas of mathematics, • efficient in applying problem-solving and reasoning skills, • independent thinkers and • aware of the maths/ concepts/ process they are doing.		
Maths at Home	Concrete, Pictorial and Abstract Methods	Building Mathematical Fluency
KS1 pupils can also hone their number facts with access to Numbots KS2 pupils can hone their multiplication facts with access to Times Tables Rockstars Login details are available from your child's class teacher. Key Facts to Practice: - Number bonds to 10 - Number bonds to 20 - Number bonds to 100	Concrete, Pictorial and Abstract Methods In line with the White Rose scheme of learning and our approach to building mathematical fluency, lessons at Whiteways are structured around our children first learning a concept using concrete apparatus and pictorial representations before moving on to more abstract methods of calculating and finally problem solving. Dienes, ten frames, Numicon, place value grids, part whole and bar models are all example of the types of resources that are used both practically and pictorially. Calculation Policy Bespoke to our school, Whiteways has a clearly written calculation policy which supports the White Rose scheme. It sets out the progression	At Whiteways, mathematical fluency is built within and across lessons using Task 1, Task 2 and Apply Your Mind. Task 1 (Simple Strategies) As our children get to grips with a new skill, they often work out answers using concrete resources or counting strategies. These methods help them solve problems accurately, but they are not always the most efficient strategies to use. Task 2 (Mental Calculations and Written Methods) As our children become more proficient with new learning, they reach the second stage of fluency. Learners at this stage can work out an answer in their head or use an appropriate written method. Learners still require] some thinking and effort as they develop reasoning strategies, but they are well on their way to becoming more efficient mathematicians. Achieving Fluency

- Times table facts (including matching division facts) up to and including 12x12
- How to tell the time

in calculating addition, subtraction, multiplication and division calculations from FS2 to Y6. It shows how our children progress from the use of concrete resources to abstract methods of calculating.



Working Walls

Maths working walls in our classrooms reflect our approach to teaching and learning. They display clear methods of calculating using concrete, pictorial and abstract methods – relevant to what the children are learning at the time. Our children have access to these resources to scaffold their learning during their lessons.

Our children then reach the stage of ‘I just knew it’, or they can reliably produce accurate answers using written methods efficiently. This stage of learning often involves using their knowledge flexibly; making connections so that the known can be used to work out the unknown.

Task 3 (Apply Your Mind)

Finally, our children can use what they have learnt to problem solve. They have the mental agility to use their newly taught skill alongside previous learning to efficiently answer problems and apply their learning to a variety of contexts.

