Chase Side Primary School

Intent, Implementation and Impact

MATHEMATICS AT CHASE SIDE

At Chase Side, we believe that Mathematics is an essential part of everyday life and that a high-quality education gives children a foundation for understanding the world.

Intent – What we are trying to achieve?

Our principle aim is that children leave Chase Side with a strong conceptual fluency in the fundamentals of mathematics. Our intention is that children foster a love of mathematical learning, whatever their ability or starting place and that they are able to confidently use and apply mathematical concepts across a variety of situations. We offer a rich, balanced and progressive curriculum using maths to reason, problem solve and develop fluent conceptual understanding in each area. We want our children to be confident and resilient learners in the face of challenge and have an appreciation and enthusiasm that will drive their future learning in mathematics.

Implementation – How do we translate our vision into practice?

We believe that quality-first teaching to mixed ability groupings should underpin all of our daily maths lessons. All children are supported and provided with challenge in order to engage with a wide range of real-world maths uses and problems - at the appropriate level of learning.

Throughout the school, children work on developing the three key areas of: fluency, reasoning and mastery.

Fluency

Through achieving fluency, the children are able to recognise and make links between concepts thus becoming confident in accessing problems presented in a variety of ways and contexts. We use the highly effective 'concrete, pictorial, abstract' approach (CPA) to

teaching, that develops a deep and sustainable understanding of maths in pupils. At Chase Side, we believe that the use of manipulatives is fundamental in supporting children of all ages to bridge the gap from the concrete to the abstract. We ensure that children first gain a conceptual understanding through the use of practical equipment (manipulatives) before representing problems pictorially, and finally in using mental strategies and written methods and formulae.

Reasoning

Children at all levels of learning are encouraged to explain their understanding using mathematical language. We teach the children to become confident in explaining and proving their understanding through reasoning. This may entail explaining why something must be true or why something cannot be. This enables our children to become literate mathematicians who can confidently express their understanding.

Mastery

At the core of the mastery approach is the belief that all children have the potential to succeed. They should have access to the same curriculum content and, rather than being extended with new learning, they should deepen their conceptual understanding of a broad range of topic areas. Teachers ensure that curriculum areas are regularly revisited and built upon.

Planning

Planning and implementation of the curriculum is guided by the 2014 National Curriculum programme for maths and the Enfield Medium Term planning. Teachers plan engaging and interesting lessons using a variety of resources, including NCETM, Nrich and White Rose Maths, with a clear understanding of the skills and objectives that have been embedded through learning in prior years, as well as a view to the progression beyond.

Assessment & feedback

Teachers and support staff use a range of formative assessment strategies to help identify the children who need more support to achieve the intended outcome and those who are ready for greater stretch and challenge through planned questioning or additional activities. In order to support teacher judgments, children are assessed using current and reliable tests in line with the national curriculum for maths and gap analysis of any tests that the children complete is undertaken and fed into future planning. Children receive regular verbal feedback to prompt and encourage, so as to develop learners who take ownership over their maths learning. Additional written feedback is given on children's learning in line with our marking and feedback policy.

Impact – What is the impact of the curriculum on our pupils?

- Children demonstrate a quick mental recall of facts and procedures. This includes the recollection of the times table

- Children show confidence in believing that they will achieve
- Each child achieves the objectives (Age Related Expectation) for the year group
- The flexibility and fluidity to move between different contexts and representations of maths
- The chance to develop the ability to recognise relationships and make connections in maths lessons
- Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations
- Children show a high level of pride in the presentation and understanding of the work