

Maths at Fellgate

Subject lead: Mrs Spencer

Link Governor:

On this page, you can find information about our maths curriculum at Fellgate.

Intent:

At Fellgate Primary School, we embrace the **Mastery approach** to teaching mathematics. Our teachers will ensure that **mathematical skills** are taught every day following an exciting and purposeful Maths curriculum. They also use cross curricular opportunities to develop pupils' **mathematical fluency**; providing **real life contexts** to further **embed key skills**. Our pupils understand the importance of mathematics, are encouraged to be confident in numeracy and **apply the skills** that they learn to a range of **problem-solving activities**. The activities cover a wide range of **mathematical knowledge**, many with an emphasis on practical work. Our teachers will have a **CPA approach** when delivering lessons. **Arithmetic** is taught both during our Maths lessons when appropriate and as a separate daily session. We **build on skills and understanding** in a step by step and **progressive** way and continue to develop place value, the four number operations and the understanding of fractional parts. We ensure that all children have the **opportunity** to reason their **mathematical thinking** and **deepen their understanding** through a Mastery approach. Teachers will use a range of resources to plan and deliver effective lessons whereby all children can **achieve**. There are extra activities throughout the year to promote **mathematical skills**.

Implementation:

At Fellgate, we follow a Mastery for Maths curriculum using White Rose Maths Hub resources. This means that children are not streamed by ability because we expect all children to be given the opportunity to achieve age related expectations. Mastery teaching provides our children with the time to acquire a deep and transferable understanding of mathematical concepts. We appreciate how important it is for our children to become fluent in all aspects of calculation, therefore, **each session must be dedicated to practicing arithmetic/times tables** and revisiting prior knowledge through core four activity.

Introducing the concept

New concepts should always be introduced with a link back to objectives covered previously. Children should be given many opportunities to make links between embedded and new learning. Scaffolds (such as new vocabulary and representations should be included on the Maths Working Wall)

Sequence of learning

Concrete, pictorial, abstract (CPA) is a highly effective approach to teaching that develops a deep and sustainable understanding of maths in pupils.

The Concrete Step of CPA

Concrete is the "doing" stage. During this stage, children use concrete objects to model problems. Unlike traditional maths teaching methods where teachers demonstrate how to solve a problem, the CPA approach brings concepts to life by allowing children to experience and handle physical (concrete) objects. For example, if a problem involves adding pieces of fruit, children can first handle actual fruit. From there, they can progress to handling abstract counters or cubes which represent the fruit.

The Pictorial Step of CPA

Pictorial is the “seeing” stage. Here, visual representations of concrete objects are used to model problems. This stage encourages children to make a mental connection between the physical object they just handled and the abstract pictures, diagrams or models that represent the objects from the problem.

Building or drawing a model makes it easier for children to grasp difficult abstract concepts (for example, fractions). Simply put, it helps students visualise abstract problems and make them more accessible.

The Abstract step of CPA

Abstract is the “symbolic” stage, where children use abstract symbols to model problems. Children will not progress to this stage until they have demonstrated that they have a solid understanding of the concrete and pictorial stages of the problem. The abstract stage involves the teacher introducing abstract concepts (for example, mathematical symbols). Children are introduced to the concept at a symbolic level, using only numbers, notation, and mathematical symbols (for example, +, −, x, /) to indicate addition, subtraction, multiplication or division.

Although CPA is understood as three distinct stages, a skilled teacher will go back and forth between each stage to reinforce concepts.

Impact:

Our monitoring proves that the Maths curriculum provides children with:

- Learners who can clearly explain their reasoning and justify their thought processes
- Quick recall of facts and procedures
- The flexibility and fluidity to move between different contexts and representations of mathematics.
- The ability to recognise relationships and make connections in mathematics.
- Happy, confident, articulate and autonomous learners with a life-long passion for learning

A mathematical concept or skill has been *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.

Inclusion and Equal Opportunities:

All children can and will succeed in maths. Our curriculum is fully inclusive and supports ranging needs and cultural diversity. We adapt the curriculum content and resource appropriately, to enable all children to make progress in maths.

National Curriculum Programme of Study

Each year group has their own long term curriculum plan. The objectives that will be covered across an academic year can be seen here.

- Year 1 Maths Long Term Curriculum Plan
- Year 2 Maths Long Term Curriculum Plan
- Year 3 Maths Long Term Curriculum Plan
- Year 4 Maths Long Term Curriculum Plan
- Year 5 Maths Long Term Curriculum Plan
- Year 6 Maths Long Term Curriculum Plan

Here, you can find our [Maths policy](#) that will tell you more about the subject and how it is taught across school.

[Awards and Quality Marks:](#)

We are current working with The Great North Maths Hub

Here, you can find out about our **Maths Policy** that will tell you more about the subject and how it is taught, monitored and assessed across the school.