

## Mathematics Curriculum Statement

### Intent

We believe the essential idea behind 'teaching for mastery in mathematics' is that all pupils can achieve. Teachers provide opportunities to develop the depth and rigour pupils need in order to make secure and sustained progress over time.

We aim for all pupils to:

- Become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Solve problems by applying their mathematics, with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios.
- Reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.
- Have an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately.

### Implementation

Lesson design Maths is planned based on the Can Do Maths scheme which is also supported from a range of sources such as White Rose Hub.

Short term plans identify small key learning points.

Tasks and questions are designed using **Variation Theory (Do It: what it is/what it is also; Twist It: what it is not; Deepen It: challenges to apply learning)**. Examples and tasks focus on developing conceptual understanding, practise the thinking process and avoid mechanical repetition. Concrete and pictorial representations are chosen carefully to help build procedural and conceptual knowledge together. Sufficient time is spent on key concepts to ensure learning is well developed and deeply embedded before moving on. The use of high quality materials and tasks to support learning and provide access to the mathematics is integrated into lessons.

These may include textbooks, visual images and concrete resources. Challenge is provided by going deeper rather than accelerating too early into new mathematical content.

**Hook:** An anchor task/hook is frequently used to engage the pupils in their learning. Pupils are given time to explore problems.

**Teach It:** Concrete and pictorial representations are chosen carefully to help build procedural and conceptual knowledge together.

**Practise it:** Children practise their new learning (and methods) with support as needed from a peer or adult.

**Do It:** Children have a go and a few straightforward examples independently, including what it is and What it is also.

**Twist It:** 'What it is not' (a key misconception) is used to secure understanding of what the learning is. Children have a go independently and a class discussion explores it further. All pupils are expected to develop at least a secure understanding of each small key learning point.

**Deepen It:** opportunities to solve problems applying the key learning.

**Conclude It:** a summary of key learning.

Pupils' difficulties and misconceptions are identified through immediate formative assessment and addressed with rapid intervention within the lesson and/or same day/week intervention. Maths on Track (MoT)

**Maths on Track (MoT)** sessions beyond the maths lesson are used to support practice, consolidation and/or immediate same day/week intervention.

**Impact**

*Secure and Deep* - At each stage, all pupils will develop a secure and deep understanding of mathematical concepts with sustainable foundations ready to be built on in the next stage of their education.