



## The Teaching of Maths

At Thorp Primary School, we follow the statutory guidance given in The National Curriculum in Years 1-6 and the Statutory framework for the Early Years foundation stage in Nursery and Reception.

### Early Years (Nursery and Reception)

Within the Early Years foundation stage children are working towards the early learning goals as set out by the government in the statutory framework for the Early Years foundation stage.

This document states that there are 7 areas of learning (3 prime areas and 4 specific areas) One of which is Mathematics.

Mathematics involves providing children with opportunities to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems; and to describe shapes, spaces, and measure

### Key Stages 1 and 2 (Years 1-6)

The National Curriculum of England for Key Stage 1 and 2 states that the overarching aims of the teaching of maths are:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

### Our approach to teaching Maths – Maths mastery

At Thorp Primary school we want to build a culture of deep understanding, confidence and competence in maths. A culture that produces strong secure learning and real progress where EVERYONE CAN DO MATHS. This is achieved by helping pupils become assured, happy and resilient mathematicians who relish the challenge of maths so that they become independent, reflective thinkers, whose skills not only liberate them in maths but also support them across the curriculum

We do this by using up to date and government recommended methods - commonly known as the Maths mastery approach. This involves using a CPA approach (concrete, pictorial abstract methods) which uses practical resources, pictures and diagrams to help pupils of all ages to develop a deep understanding of maths. Staff at Thorp have received extensive training in this approach from White Rose Maths and

the white Rose Schemes of work are now being used from years 1- 6 and are currently being developed for Reception.

This approach enables the children to be taught in mixed ability groupings whilst ensuring that all children are developing a deeper understanding of maths concepts. Children are given a variety of fluency, reasoning and problem solving activities each day, which build up their understanding over several weeks. They are also given opportunities of applying this learning in other subjects such as measuring in Science and graph work in topic.

### Written arithmetic practice (WAP)

To ensure that pupils are able to readily retrieve their knowledge and understanding of the maths they have been learning, we also have dedicated practice time every day for 15 minutes. This normally focuses on number and written calculations, however, teachers can will also use this time to address any whole class gaps which may have arisen from previous units taught. On a Friday from Year 3 to Year 6, children will use the time recalling multiplication facts.

### Times Tables Rock Stars

Times Tables Rock Stars is designed to allow the children to practise their timetables each day. We subscribe to the online app and all children have an individual login and password. This enables children to practise a few questions every day in a fun way and all children are expected to use this app at least 3 times per week. There is also a times table app which is available for all pupils to help the children practise their tables regularly.

### The Future

Now we are part of the Oak Trust, we have the opportunity of developing our maths mastery approach further by becoming part of a primary mathematics teaching for mastery work group. This will allow all schools within the MAT to work together with other schools in the area, to further improve how we teach maths and to ensure that ours is a school where EVERYONE CAN DO MATHS.