

# Maths Curriculum



## Rationale

At Crompton, we have set our Maths curriculum in order to develop children's problem solving and reasoning skills as well as embedding key concepts through Maths Meetings and high quality teaching. Maths Meetings have been introduced to consolidate, embed and deepen their understanding of all objectives from the Maths curriculum. This includes content taught from previous year groups. It also allows staff to assess the children's current understanding for upcoming topics in order to plan the most effective lessons for children.

## Intent

The National Curriculum (2014) for mathematics aims to ensure that all pupils:

- 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

We aim to ensure that our children have access to a high-quality mathematics curriculum that is both challenging and enjoyable. We want to develop our children into confident mathematicians who are not afraid to take risks. Children need opportunities to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. It is vital for the children to be able to see how mathematics is relevant to their world, and applicable to everyday life. We also aim to instil an understanding of how mathematics is something that the children will need as they move through their school life and into the world of employment.

## **Implementation**

Lessons are planned and sequenced so that new knowledge and skills build on what has been taught before. Teachers ensure that that all objectives are taught by referring to our Long Term Plans and access materials from the White Rose Hub to aid in the delivery of lessons. It is vital that in all year groups, there are opportunities for the children to demonstrate mastery at all points in the year. All year groups start with number work, as this underpins all mathematical understanding, before moving on to calculation techniques. Reasoning is also taught alongside calculation methods at all times in order to challenge children's understanding while developing key skills.

We aim to ensure that our children have time to make and model their understanding in mathematics so that they develop strong visualisation skills. The children have access to a number of concrete objects in the classroom that can aid their development. It is important that in all year groups concrete and pictorial aids are used to help children understand more abstract concepts in Maths as well as giving them a wide range of strategies to solve calculations. This also helps deepen children's understanding of what number actually is.

Practising the rapid recall of numbers facts is vital throughout school. This happens regularly in our Foundation Stage and Key Stage 1 in the form of singing, chanting and games. As well as these techniques, from Year 2 upwards, all children have access to their own personal account of 'Times Tables Rockstars' where they can compete against other pupils and classes in school.

Maths Meetings are used in order to help embed prior learning for children in all areas of the Maths curriculum. Teachers reteach children every area of the curriculum before children then consolidate their learning with similar style questions. Maths Meetings are also used to assess children's current knowledge on upcoming topics which will enable them to plan effective lessons to ensure progress.

## **Impact**

In order for this to happen, everyone in our school takes responsibility for the children's progress and the standards they achieve. The Mathematics Leader, in partnership with the Senior Leadership Team, takes responsibility for the monitoring of the mathematics curriculum. The Mathematics Leader monitors for appropriate pitch and progression at least once every term. This monitoring takes the form of lesson observations and feedback; learning walks and pupil voice conversations; book scrutinies and moderation. Assessments are carried out termly and all teachers contribute to a termly Pupil Progress Meeting where the data is analysed and next steps are agreed for all learners to ensure all make good progress.

These factors ensure that we are able to maintain high standards and that our children become confident, resilient mathematicians who enjoy the subject and value its importance in everyday life.