

# Maths Curriculum overview

## Intent

At Park Schools Federation, we intend for all our pupils to develop a love of maths and enjoy the excitement and challenge that mathematics brings. The aim of our primary mathematics curriculum is to deliver an engaging, balanced mathematics curriculum which is accessible to all and that will maximise the outcomes for every child so that they know more, remember more, and understand more. We intend for our children to become fluent in key mathematical facts and to ensure that they have secure number sense. We want our children to reason and explain mathematically, we aim for these fundamental skills to be embedded to allow our children to be confident when solving problems. We are doing this as we believe that our children should have the strongest possible chance to develop and deepen that mathematical thinking in a way that makes them stand out in their future.

## Implementation

At Park Schools Federation, we use a maths mastery approach to deliver active and involving teaching that promotes curiosity, creativity, resilience, and growth mindset. We believe that all children can succeed in learning mathematics in line with national expectations. We use the White Rose Maths scheme of learning as a guide for small steps in learning and to help teachers in the resourcing of this subject. The scheme is sequenced, structured and ensures full National Curriculum coverage in full and in manageable, logical steps. The White Rose calculation policy is used within school to ensure a consistent approach to teaching the four operations over time.

All our maths sessions begin with a 'flashback 4' – a short assessment to support retrieval practice and develop long-term memory. Children then move onto a quick starter task which supports as a pre teach for the main lessons focused objectives. Children are taught through clear modelling and have the opportunity to develop their knowledge and understanding of mathematical concepts. Our approach incorporates using concrete objects, pictures, words and numbers to help children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding. We model mathematical thinking by encouraging pupils to reason about a concept, make connections and spot patterns between different concepts.

Reasoning and problem solving are integral to the activities children are given to develop their mathematical thinking. Resources are readily available to assist demonstration of securing a conceptual understanding of the different skills appropriate for each year group. Teachers move mathematics from one context to another, using objects, pictorial representations, equations and word problems. There are high expectations for pupils to learn times tables and key number facts and have a true sense of number. They are encouraged to think whether their method is appropriate, reliable and efficient. The use of

precise mathematical language, often used in 'stem sentences', is used by teachers so that mathematical ideas are conveyed with clarity and precision.

In the Early Years Foundation Stage (EYFS), we relate the mathematical aspects of the children's work to the development statements contained within the range bands and the Early Learning Goals (ELG), as set out in the Birth to 5 Matters document. Mathematics development involves providing children with opportunities to practice and improve their skills in number comparison, counting, cardinality and composition, and spatial awareness, shape, patterns and measures. At the end of reception, the ELGs for Mathematics focuses on number and numerical patterns. We continually observe and assess children against these areas using the development statements to plan the next steps in children's mathematical development through a topic-based curriculum.

Mastering Number is used with in our EYFS setting which aims to secure firm foundations in the development of good number sense for all children. This programme is delivered to the whole class, through a short teaching session, in which the teachers will develop pupils understanding of the number system including cardinality, composition and subitising. Teachers will encourage the children to clearly communicate their mathematical ideas through the use of key mathematical vocabulary and stem sentences.

#### Multiplication Tables Check

From the 2019/20 academic year onwards, schools in England will be required to administer online multiplication tables check (MTC) to year 4 pupils. The purpose of the MTC is to determine whether pupils can recall their times tables fluently, which is essential for future success in mathematics. It will help schools to identify pupils who have not yet mastered their times tables, so that additional support can be provided. To support the children with their multiplication practice we use 'Times Table Rockstars' as an online and fun learning platform which also offer resources to be used in the classroom.

#### Mastering Number

This project aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 1 and Year 2. The aim over time is that children will leave KS1 with fluency in calculation and a confidence and flexibility with number. Attention will be given to key knowledge and understanding needed in Reception classes, and progression through KS1 to support success in the future. In KS2, the pupils access a daily Mastering Number lesson, which focuses and develops pupils, knowledge and understanding of multiplicative relationships.

## Impact

Children will understand and value the importance of Mathematics, this is evident through pupil voice and monitoring which takes place by the curriculum leader. We want children to be confident in making rich connections across mathematical ideas as a result of developing fluency, mathematical reasoning and competence in solving increasingly sophisticated, contextual problems.

Through first quality teaching, guidance and effective feedback, children will:

- Clearly explain their reasoning and justify their thought processes
- Quickly recall facts and procedures
- Have the flexibility and fluidity to move between different contexts and representations of mathematics
- Have the ability to recognise relationships and make connections in mathematics
- Be happy, confident, articulate and autonomous learners with a life-long passion for learning