

Park Gate Maths Curriculum



We believe that everyone CAN DO maths. At Park Gate, we follow a mastery curriculum which is embedded across all year groups in all lessons. Pupils are taught through whole class interactive teaching and ALL pupils work together on the core learning within a lesson. This way, we can ensure that all pupils master the concepts taught before moving on, ensuring no pupil is left behind.

Let's take a look at what a maths lesson at Park Gate looks like:

In all lessons, teachers use high quality resources and various representations, models and images to deliver interactive teaching inputs. During teaching time, pupils are actively involved in the learning and can be seen thinking along with the teacher by answering questions, following the school's 'no hands up' approach, talking with their partner and answering questions on whiteboards.

At Park Gate, you will see high quality mathematical language being used by teachers and pupils. Stem sentences are used to provide the language and structure pupils need to verbalise and explain their mathematical thinking. In a lesson, you will hear pupils confidently sharing their thinking with one another using excellent mathematical language to explain their understanding.

In a sequence of lessons, you would see the Concrete, Pictorial, Abstract journey being explored by pupils in all year groups. When new learning is introduced, real life and concrete resources are used to support their learning and make mathematical links with the world they live in. When they have become more confident in a new concept, you will then see children representing their workings using pictorial representations to support their understanding allowing them to create a visual picture of their abstract maths. All of our classrooms are decorated with key models and visual representations to further support this connection and support them when they are ready to use abstract methods, such as column method, to solve calculations.

When introducing new learning in a lesson, teachers follow the 'I do, We do, You do' approach. In a lesson, you will see the teacher thinking aloud and providing high quality worked examples of a mathematical concept (I do). You will then see pupils practise this same skill, supported by feedback from the teacher and discussions with class peers (We do). Once pupils are confident, you will see them taking part in their Core Learning task to practise their new learning (You do). You will notice that the practise used is 'intelligent practice' to improve the pupils' fluency and to further deepen their understanding. In line with the Primary National Curriculum, tasks are also designed carefully to not only allow pupils to become fluent but to also show their mathematical reasoning, explore concepts in different contexts and apply their mathematical thinking to solve problems.

You will then see some pupils who have grasped this new learning rapidly, being further challenged with deepening tasks. Deepening tasks challenge pupils to expand their understanding of the learning by applying it to different contexts or solving more complex problems.

Within a lesson, you may also see some pupils using additional resources or scaffolds to help support their understanding of the new concept. You will also see the class teacher supporting these pupils and identifying any misconceptions or extra practise that is needed. This will be followed up with an intervention or extra practice time to enable these pupils to securely understand this learning so that all pupils are ready to move on in the next lesson.

Now immerse yourself in our mathematical world by taking a journey through the exciting maths learning that takes place throughout Park Gate Primary School.

In Year R, children start their mathematical journey by exploring numbers from 0 – 20 using the Mastering Number NCETM programme. You will see pupils exploring these numbers using a range of real-life objects from Lego bricks to pine cones. As you step into Early Years, you will hear children confidently using mathematical language such as add and subtract and asking one another the questions “How many more?” and “How many fewer?”

Moving up to Year 1, pupils build on this knowledge by beginning to explore numbers to 100. During COOL job times, you will see the children confidently and independently using real life objects alongside resources such as tens frames, Numicon, bead strings and Dienes to represent numbers to 100. In Year 1, pupils will be learning how to add and subtract numbers to 20 and how to multiply and divide by creating equal groups and identifying halves and quarters of objects, shapes and quantities and much more. In the afternoon, you will also see pupils working hard to build their fluency and flexibility with numbers when following the NCETM Mastering Number Programme.

In Year 2, you will see pupils using Rekenreks when following the NCETM mastering number programme to build their fluency and flexibility with number facts to support their learning in lessons. In lessons, you will see pupils further develop their understanding of numbers to 100 and how to add and subtract 2 -digit numbers. They will also be working hard to learn their 2, 5 and 10 times tables amongst many other new skills.

In Year 3, you will see children exploring problems, using expanded column method to solve addition and subtraction calculations. You will also see pupils working hard to multiply and divide using new methods. You may even hear rock music blaring from the classrooms as children practise their 3, 4- and 8-times tables using Times Tables Rock Stars. You will also witness key fractions knowledge being learnt, using fractions walls to build understanding of unit and non-unit fractions, equivalent fractions and how to add and subtract fractions with the same denominator.

Across the corridor in Year 4, you will hear children discussing their mathematical thinking when solving problems and becoming more confident using formal methods to add, subtract, multiply and divide. Throughout the year, the children’s understanding of fractions is broadened to fractions over 1 and children are introduced to tenths and hundredths of a number and making further connections between fraction and decimal equivalents. Your ears will also pick up on the sound of rock music playing as pupils work hard to fluently recall all multiplication facts up to 12 x 12 in a fun and engaging way.

In Year 5, there is a great focus on multiplication and division. You will see children multiplying by two-digit numbers and making links with finding the areas of compound shapes. In this year, children will also use their knowledge of division to solve real – life problems using the bus stop method. In Year 5, pupils will also be working hard to improve their fluency when recalling multiplication and division facts up to 12 x 12, becoming true Times Tables Rock Stars.

In Year 6, you will see pupils build upon all their primary school mathematical learning. They will work together to solve problems across all areas of maths and make deeper links between these areas.

Across the school you will see ALL pupils being actively involved in their learning of the mastery curriculum, developing their fluency of number, talking confidently and reasoning about their mathematical thinking, solving mathematical problems and enjoying their maths learning because we truly believe everyone CAN DO maths.

The Subject Leader for Maths is Miss Quinn, supported by Mrs Beazley (KS1) and Miss Turner (KS2).