

Maths

Springfield Infant School and Nursery



Intent

At Springfield, we have designed and follow a creative curriculum. We feel that this provides the opportunity to celebrate individuality and creativity in all of our children. Our creative maths curriculum makes maths learning fun, engaging and interesting for all children.

Our Springfield 'I CAN' values are embedded in our maths curriculum. At Springfield mathematics has a pivotal role of enabling **inclusivity**, children being **nurtured** into keen and inquisitive mathematicians, being **creative** and having the chance to challenge themselves and be **ambitious** in their maths work. The skills children acquire in maths are a means of supporting their learning in a range of ways, and can be transferred to other areas of the curriculum.

Our maths curriculum ensures that our children have access to a high-quality curriculum that is both challenging and enjoyable. At Springfield, we do not have 'children that do maths,' we have children that are and see themselves as mathematicians. As part of good practise and in accordance with our school values, at Springfield we have an inclusive ethos where all children know and believe that they can achieve in maths.

At Springfield, our children understand the importance of maths and the place it has in every day life. They become fluent in the fundamentals of maths, which enables them to reason, investigate and problem solve, as well as, prepare them for the wider world. Problem solving and reasoning is an integral part of our maths curriculum.

Our children have a variety of creative mathematical experiences and opportunities thoroughly enjoys their maths learning and become life-long mathematicians.

Implementation

At Springfield, we pride ourselves on a secure understanding of the mathematics curriculum and we use resources from the NCETM, and the White Rose scheme to support teacher subject knowledge and to guide us in maths teaching and learning. We provide opportunities for our children to become fluent in the fundamentals of mathematics, to reason mathematically in a range of situations and to develop skills in problem solving to prepare them for the wider world and later education.

A typical maths lesson will provide the opportunity for all children, regardless of their ability, to work on their maths fluency and practise key skills. There will be a series of challenges for children of all abilities to access at the fluency stage. In addition to this, our learning motto is that '**our learning never stops**' and the children always have a reasoning challenge to complete, so that they can articulate their understanding. Furthermore, in every maths unit there is a Problem-Solving activity so that the children have the opportunity to explore and demonstrate their learning and understanding in a different way. At the end of each unit, but away from the point of teaching, the children complete a retrieval task, so that they can show their understanding. The teachers also use this as an assessment tool. Our curriculum works in a spiral formation so that children are constantly building and making progress on the key mathematical concepts of the National Curriculum. The children have chance to respond to teacher marking and assessment. This enables the children to consolidate their understanding, with additional practice before moving on.

Our lessons are adapted for the range of needs for our learners so that all children can make progress from their starting points.

Mental mathematics is a key skill and we recognise that our children need to be fluent in the fundamentals of mathematics. We therefore ensure that accurate and rapid recall of fundamental facts are weaved through our school day, for example, times-table facts to support counting when lining up or telling the time to highlight important parts of the day. We feel it is an important step to develop conceptual understanding by identifying patterns and relationships between these number facts. This helps the children to make links between their learning subjects and the importance of maths in the wider world.

At Springfield, there is a strong emphasis on developing rich number sense for our young children. This requires children to be provided with multiple opportunities to make sense of numbers through concrete, pictorial and abstract representations (CPA). Children are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols. This is detailed in our calculation policy.

Concrete – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.

Pictorial – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.

Abstract – with the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

Our children are provided with a variety of different resources to enable them to access their mathematic learning. These include Numicon, Dienes, Place Value Counters, 100 Squares and Number Lines. They are available for children to access independently and are accessible in every classroom.

Our aim in mathematics is for learning to have a purpose. We want our children to be able to apply the key skills of learning in a variety of practical concepts to give meaning to maths using real - life opportunities. We endeavour to provide this by creating as many purposeful maths opportunities within the classroom and within the wider environment. Cross curricular links are made wherever possible such as shapes in art, to learn about position and turns, algorithms and turns in computing and understanding of time through science learning on the seasons.

We also want our parents to be involved with their children's learning. We have a 'Maths Monkey', who goes home a child each week and the children are encouraged to solve a mathematical problem with Maths Monkey. This enables parents to understand the language and maths that is taught at school. We support parents by providing 'Meet the Teacher workshops and demonstrate how maths is taught and ways they can support their child's learning at home.

In addition to our maths lessons, we have 6 maths mornings. This is a morning every half-term, whereby the children might focus on a maths story, problem or investigation. These are very popular with the children and staff.

Impact

Children enjoy maths at Springfield. Through rich learning opportunities children acquire the knowledge and skills required to develop as mathematicians. They talk enthusiastically and confidently about their learning. All learners make good progress from their starting points. They are able to solve problems in a range of contexts and reason mathematically.