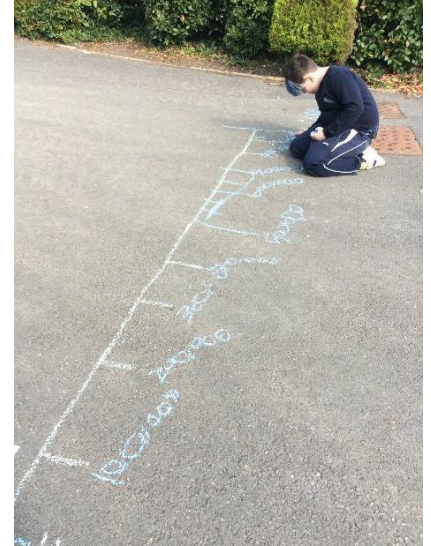


The Maths Journey at Oakfield

Maths is an essential skill that enables us to live an independent life. It teaches us how to make sense of the world around us, whether it be calculating the total amount of money we need to purchase items, knowing what time to meet a connecting train or weighing precise amounts of ingredients when following a recipe. Maths helps us to develop problem solving and reasoning skills that allow us to solve a variety of problems.



Our Approach

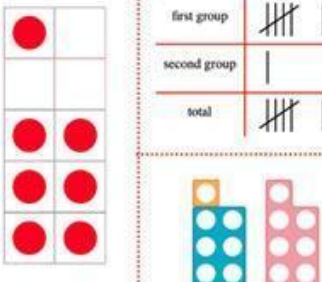
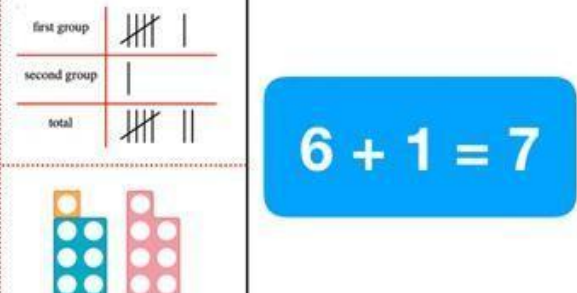
We aim to teach our children to become fluent in solving calculations involving the four mathematical operations and to equip them with the tools to solve a variety of problems. The programmes of study are, by necessity, organised into distinct areas, but pupils will make rich connections across mathematical ideas. Developing problem solving and reasoning skills is a thread that runs through all our Maths lessons. Children are challenged to explain why, to prove how they know, to convince us that they are correct or to find all possible outcomes. To facilitate children to **know more** and **remember more**, key **concepts** within number and place value are revisited and built on each year. Teachers question children carefully to identify misconceptions and encourage higher-level thinking.

All maths lessons/activities are designed and planned to include all children through a range of approaches and tasks to enable every child to experience success. We believe in exposing the children to multiple representations of a concept, using concrete, pictorial and abstract examples simultaneously to support the children's understanding. Pupils have the

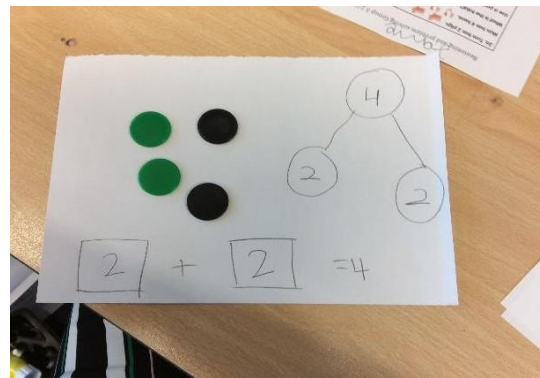
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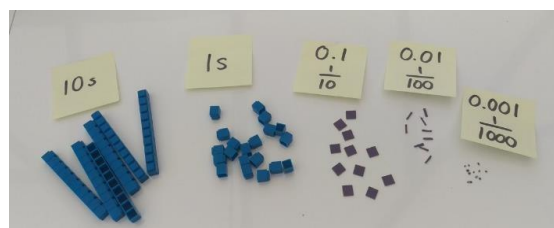
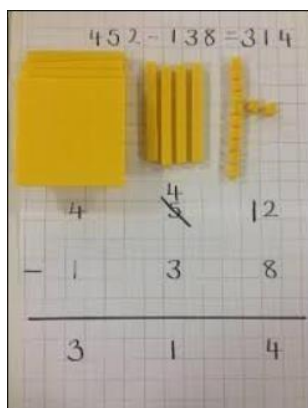
		
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opportunity to use a wide range of resources to support their learning such as number lines, Numicon, Base 10, place value cards, bead strings and tens frames.



Nurturing independence

In EYFS and KS1 teachers will guide pupils towards mathematical equipment that will help secure their understanding of a specific skill, teaching them how to use the equipment efficiently in order to move their learning on. In LKS2 and UKS2 the children are encouraged to select any mathematical equipment they need to complete tasks themselves, this fosters their independence and gives them autonomy over their work, it teaches them to be less reliant on the teacher, nurtures a 'can do' attitude and helps prepare them for Secondary school education.



EYFS and KS1

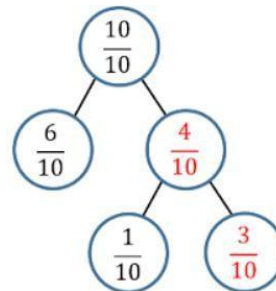
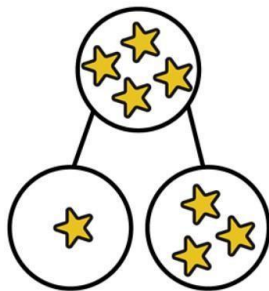
The Mastering Number at EYFS and KS1 programme, followed by the relevant year groups, aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 1 and Year 2. The aim over time is that children will leave KS1 with fluency in calculation and a confidence and flexibility with number.

Number Sense Maths in KS2

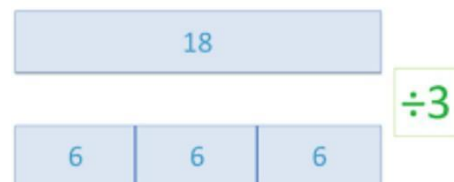
In KS2 we have adopted a fully resourced scheme of work focused entirely on times tables. This provides the structure and depth to times tables teaching that children need to achieve fluency in multiplication and division facts and concepts. It is a true mastery programme, designed to achieve fluency for every child without exception.

Model and Images

Throughout our primary school year groups, we have adopted the same pictorial representations from reception to year 6. This continuity enables children to grasp mathematical concepts more swiftly. For example children become familiar with the 'Part, Part, Whole' model in year 1 and this model is then used throughout their primary education to support their understanding within the CPA approach.



What are $\frac{2}{3}$ of 18?



Learning walls

Throughout the school our learning walls are regularly updated to support our children with the current learning. They will display concrete resources, vocabulary and, previous learning and models to give the children a visual aid to refer to.

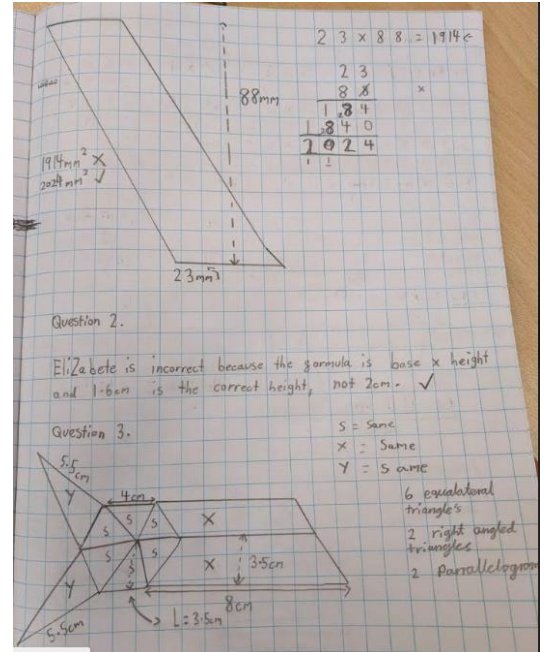
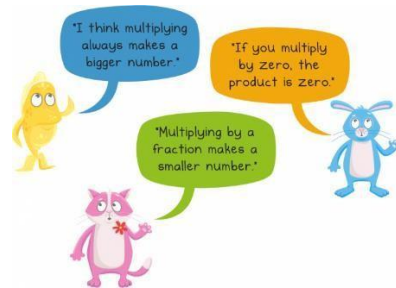
I do... We do... You do...

In our daily lessons, we use the 'I do... We do... You do...' approach to teach each small step in our mathematics learning journeys. This enables the teacher to model the learning, then work collaboratively alongside the children (building their confidence and addressing misconceptions)

before children move on to solve calculations independently.

Challenge

As children develop mathematical fluency we challenge their deeper thinking through problem solving and reasoning to ensure that they fully understand a concept. This mastery-style approach is key to ensuring they truly understand a mathematical topic, it is not about giving children larger numbers to work with but asking them to verbalise and explain their thinking and prove that their thinking is right.



Storage and Retrieval

Children need time to practise and consolidate their knowledge and skills, particularly when needing to apply these across the domains of maths. Just one way we support this is by offering opportunities to remember and build on what they already know through 'Fluent in 5' tasks in ks2. Practising in fun, interactive ways helps information transfer and 'stick' to the long term memory. Home and remote learning activities are designed to maximise the opportunities for learning to 'stick' too!

