

Maths at Catshill First School and Nursery

Aims:

Through the teaching of maths at Catshill First School and Nursery we aim to create resilient mathematicians who have the necessary mathematical skills and who do not give up when approaching challenging problems.

What you will see:

In Nursery, daily sessions of Magic Maths is a fun introduction to maths, the number system and other mathematical concepts such as shape, space and measure through songs and play. In Reception children have both a guided maths activity and continuous maths provision, as well as a maths rich environment.

Our school approach follows the lesson format of Do it, Twist it, Deepen it. "Do it" is the lesson's learning objective. For example telling the time to the five minute interval. "Twist it" is that objective given in a slightly different format, twisted. For example telling the time on a clock with Roman numerals "Deepen it" is the mastery element of the lesson. For example two children reading a clock and saying it shows different times. The children need to explain which child is correct and why. All children are presented with the three sections every lesson. To facilitate this staff use White Rose Maths long term (yearly plan) and medium term planning (termly plan) subsidised with quality resources from sites such as NCETM and Classroom Secrets to support the teaching of the curriculum. The use of these resources give the children the opportunity to use their learning in a wide range of tasks. Staff produce their own short term planning (weekly plan) in line with the White Rose using a whole school weekly planning document or a Google Slides document. We follow plans from White Rose to build up the necessary skills of maths over time. We teach maths using these resources to develop skills and understanding as well as mastery of the maths curriculum. We are aware children need small steps but a degree of challenge and risk taking should always form part of our curriculum. We believe that children need to develop resilience to the tackling of maths tasks from a very early age, it is key to their success in maths.

As part of this approach, we ensure concrete, pictorial, abstract opportunities (CPA) are available to children and this is reflected in our calculations policy. New concepts are introduced with concrete materials and manipulatives, so all children can see 'the maths'. This is then built on by using pictorial representations (such as bar models and part part whole models) which the children can use to reason and solve problems. When ready, the children move to the abstract and ultimately formal method, recording their maths using symbols with confidence, though concrete materials are always available to them. This helps our children build a deeper understanding of why the maths works and supports their retention.

In every classroom Maths is taught with a focus on high quality mathematical vocabulary and supported by the use of an up to date working wall. Children are taught in ability groups in Key Stage 1 (KS1) but not in Key Stage 2 (KS2). As part of the School's Development Plan for Maths, over time we would like to introduce mixed ability groupings right across school, which is fundamental to the mastery approach to teaching mathematics as a whole class group. Exposing all children to the stimulus of discussion with others at different levels of knowledge and understanding. Work is marked using the school's feedback and marking policy. Teachers and teaching assistants support and identify areas of weakness through ongoing assessment during lessons; those children who are working below age related expectations are supported with pre-teaching, assembly time support, targeted questioning and targeted support in lessons from adults. It is also possible to teach the same learning objective to all with a slightly adapted activity. These children can then access the learning objective for the lesson.

During the Autumn term Number is a focus across the school, in line with White Rose Planning. As the year progresses the rest of the areas of Maths are covered building up a more rounded assessment of the children as mathematicians. To support ongoing formative assessment teachers review pupils' contributions in lessons and work in their books. Class teachers then use this holistic approach to assessment to inform judgements on the school's assessment system Educater.

Ensuring this is put into practice:

Monitoring is completed by the Maths curriculum lead and by the Senior Leadership Team (SLT). Staff also complete year group and cross phase moderation. The Year 4 staff attend county moderation sessions to ensure consistency of judgements both in and out of school. The outcomes of these are shared with school staff to ensure consistency in maths teaching and a shared vision and understanding of what Maths looks like at CFSN.