

Maths at Westfield



Intent

At Westfield School, we value maths highly. Maths for us is not just about mastering a series of separate procedures; it's a richly-connected set of skills and problem solving techniques, applicable to almost all areas of school and wider life. As a central part of our curriculum, we know that a good maths learning experience isn't just about what we learn, but *how* we learn. To this end, we believe in a small-step, visual approach using a range of clear models and images to broadly enable everyone, regardless of ability, to learn the same content at the same time. We appreciate that deep understanding of a concept doesn't happen the first time, the second or third time, sometimes not even the tenth time that something is covered. Embedded learning is a long game, and each time we tackle a skill or procedure, we celebrate that it is another step on the journey to achieving full understanding. Struggle and sometimes failure is also part of this journey and we embrace it. Skills, knowledge and procedures are carefully sequenced and revisited to achieve this embedded learning.

Implementation

As a school we are following a maths mastery approach, as this provides a good framework for teaching in small, incremental steps and has a cyclical structure, revisiting concepts several times over the course of the year. However, we are flexible and responsive and use our professional judgement to adapt, change or repeat skills around according to the changing learning situation. Most of the time this is an individual decision; sometimes it is a school action. We encourage our children to be independent learners and learn through experience, with support when required.

Lessons will almost always involve modelling of worked examples and thought processes. Our environment supports this through our use of a range of equipment, additional visual supports as needed and differentiated small group lessons. In addition we also ensure the learning space is appropriate for each child to achieve their best outcomes.

We have a rich range of resources to create models and images, often more than one for a concept to appeal to as many learners as possible. These will be used to engage and scaffold learning until conceptual understanding is achieved. This will vary for different children and as a school we are dedicated to supporting those who need it and challenging those who are ready to learn to a greater depth. But we are equally committed to avoid

diverging from content, even for those who may be working on the objectives from a different year group.

Fluency in well-rehearsed methods is an important part of mathematics, however at Westfield, focus is given to the understanding of the procedures and when they are best incorporated. Thus, problem solving and reasoning are a core part of our maths lessons. We encourage our children to engage in maths talk with correct vocabulary, to work together, to compare different approaches, to justify their choices, to explain their reasoning. Fluency is often achieved during the day in small bursts.

Marking has moved away from being an activity done separately by the teacher at the end of the day to being an important part of the lesson. It is now a dynamic, on-the-spot procedure, more akin to verbal feedback. It is responsive to common misconceptions as they happen, rather than after. It enables pupils to see where they are going wrong and adjust their trajectory in that moment. Being responsive in this way means we are able to provide same-day intervention with individuals or very small groups, so the teacher or TA can rectify problems as they crop up rather than retrospectively.

Impact

As a school we recognise the impact the children's additional needs has on their learning. Using the maths mastery approach, children are becoming more confident, enthusiastic and independent learners in maths lessons. They show us a greater understanding of their mathematical skills.

Summative assessment takes place at the end of each term and children's progress and attainment are discussed by teachers and the senior leaders. Data is analysed to provide next steps for individual children or the school as a whole.

Children's books show the child's journey through their maths learning in a fluent and coherent way with evidence of each child's understanding provided through photographs, observations and each child's work products. Using this approach removes the demand for written evidence for each child, which we know is challenging for many of our children. Children are also regularly required to draw upon prior learning. They use the correct, appropriate mathematical vocabulary suitable to their individual stages of learning.

If you are interested in finding out more information about maths mastery please follow the links below:

<https://www.ncetm.org.uk/>

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