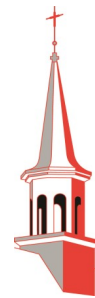




Maths at Newburn Manor Primary School



This is a guide for anyone who is visiting Newburn Manor Primary School to explain our approach in mathematics across the school. It is intended to explain what you can expect to see/not to see during lessons.

Q. What will a typical maths lesson look like?

At Newburn Manor, we are following a mastery approach. All lessons are pitched at end of year expectations. Content will be progressive and challenging for all. Lessons might be slow paced or fast paced; depending on how the children grasp the concept. All lessons will include fluency, reasoning and problem solving. We aim to give real life context to maths lessons.

Q. Where are lessons and resources planned from?

Lessons are carefully crafted to use a concrete > pictorial > abstract approach. Objectives are taken from the National Curriculum document. Tasks/activities will be taken from the White Rose scheme of learning alongside additional resources e.g. NCETM and Nrich.

Q. What about maths displays?

All classrooms have a Maths working wall where learning prompts and key vocabulary is placed to support children. In maths, we feel it is important for children to have access to a range of concrete resources in order to access the curriculum and to support the development of mathematical fluency. Concrete resources may be used to support and challenge pupils' understanding.

Q. Are lessons differentiated?

All lessons are planned with 'End of Year' objectives and aimed at 'End of Year' expectations. Skilful questioning from teachers will allow support and challenge. Timely intervention will also provide support and challenge to pupils. Resources will enable all to access the learning. Mixed ability pairs (that change regularly) will provide opportunities for peer-to-peer support and scaffolded learning.

Q. What will tasks in books look like? Will I see different abilities?

Children's books will look very similar. You will not find repetition of procedural calculation (lots of fluency). You will see reasoning and problem solving happening. You will see children explaining in words and sentences and using mathematical vocabulary. You will see children completing the same tasks — but they may access this differently (teacher/TA input, resources etc...). In some lessons children have the opportunity to choose which challenges they want to access. This gives ownership over their learning.

Q. What happens if children have gaps in their learning? How is this taught in mixed abilities?

Intervention is reactive to children's' needs. Teachers/TAs may have a workshop group to enable children to access the tasks.

Q. How is marking and feedback used in a lesson?

Teachers and TAs may mark within lessons—offering immediate feedback with challenge and support. Children may also peer/self-assess during stages of the lesson.

Q. Where do you record evidence for fluency, reasoning and problem solving?

This may not be evident in all books for every lesson; however, they will all be covered within a lesson. In order to problem solve, children need to be fluent and be able to reason. The three aspects are interlinked. Work may be in maths books, on whiteboards or practical using other objects.

Q. What will presentation be like in books?

Formal calculation methods will be expected to be neat and well presented. Children are encouraged to be neat and think about presentation at all times. Some elements of reasoning and problem solving (for example use of the bar model or arrays) may require jottings and rough working.

Q. Are classes in groups or sets?

Part of our mastery approach is that classes are taught in mixed abilities. Children will work in mixed ability partners. We do not place a ceiling on children's learning through ability groups. When working in pairs children are encouraged to support and challenge each other to develop their understanding.

Q. How do you make sure that higher attainers in maths are challenged?

Teachers will differentiate questioning to promote deep learning. Children can be challenged or extended through: giving deep, challenging tasks; peer tutoring; designing and solving their own problems; being asked to explain and reason more often; and to be encouraged to provide more mathematically accurate explanations by refining their language choices.

If you have any more questions about maths or the maths curriculum, then please feel free to ask staff.

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