Mastery Maths at Wylam

Q What is the intent of the maths curriculum?
At Wylam First School we have high expectations of all of our pupils and as a result provide a maths curriculum that is challenging and engaging. We aim to develop children's knowledge and understanding of mathematical concepts, enable our pupils to think critically and communicate effectively through problem solving and reasoning and develop understanding of skills that can be applied across the curriculum. We aim to develop resilience when tackling reasoning and problem solving and build the confidence to make mistakes in order to achieve deeper learning.

This guide explains our approach in maths at Wylam First School:

Q What will a typical maths lesson look like?
We follow a mastery approach that consists of many small steps. 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 mathematical fluency, reasoning and problem solving.

Q Where are lessons and resources planned from?
Lessons are carefully crafted and follow a concrete, pictorial and abstract approach. Small steps are planned based on the White Rose maths scheme. Objectives are taken from the scheme and the school assessment documents, both of which are underpinned by the National Curriculum. Taks/activities (decided by the teacher) will include: Classroom secrets, White Rose, Twinkl and Power Maths

Q Are lessons differentiated?
Skillful questioning from teachers will allow support and challenge. For example, "Is there another way?" can promote both support and challenge for children. Children will not be accelerated through content and may be asked to explain/justify or represent something in another way. Timely intervention will provide support and challenge. Resources will enable all to access. 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 see reasoning and problem solving happening. You will see children explaining in words and sentences and using mathematical vocabulary. This will be more accurate with children who are working at greater depth. You will see children completing the same tasks - but they may access this differently (eg with

adult support, use of resources), this ensures greater depth is possible for all and that expectations are high.

Q What happens if children have gaps in their learning?
Targeted pre-teaching and post-teaching intervention will be planned for and delivered by teachers, TA's, talk partners and homework. Gaps will also be addressed by fluent in 5 and 10 minute fluency bursts that take place first thing in the morning.

Q. What is Fluent in 5 and Fluency Bursts?
Fluent in 5 and Fluency Bursts are short, pacey maths focused sessions where children across the school, in all year groups take part in a daily session. This focuses on basic skills in maths. Teachers plan these sessions following Fluent in 5 and also based on gaps in learning and understanding. Children will use their 'Try it out' books to complete tasks. Books will not be marked by the teacher but will be self marked at the end of the session, peer marked or not marked at all.

Q How is marking and feedback used in a lesson?
Teachers will start a lesson with a recap of the previous day. Key concepts/misconceptions may be addressed. Teachers and TAs may mark within lessons - offering immediate feedback plus challenge and support. Children may also peer/self-assess.

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 3 aspects are interlinked. Work may be in jotters (Try it out books), on whiteboards or practical using 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 eg.use of the bar model or arrays, may involve jottings and rough working. This is fine. Working out which is not required to be presented neatly will be in the try it out books.

Q Are pupils in ability groups for mastery of maths?
No, children are taught in mixed ability groups and we therefore do not place a ceiling on any child's learning.

Q How do you make sure that children working at greater depth in maths are challenged?
Not all children will be greater depth in all elements for their maths. Teachers will differentiate questioning to promote deep learning. Pupils may be chosen to explain/model/reason because of their deeper understanding. Children can be challenged or extended through: doing deep challenging tasks; peer tutoring: designing and solving their own problems; being asked to explain and reason more often; and providing more mathematically accurate explanations by refining their language choices.

Further information can be found on the NCETM website (National Centre for Excellence in the Teaching of Mathematics.