*Our aim is to inspire our pupils to become life-long mathematicians. We provide a rich environment of context-based problem solving married with a methodical approach to the development of fluency with numbers and reasoning skills.*

At Wycliffe we have embarked on a journey to embrace Mastery in Mathematics and have been part of an NCETM Training Research Group since September 2017. As such, our Maths journey is evolving and our Maths practice looks quite different around the school while we roll out the full Mastery Programme. Throughout the school you will see daily evidence of the three aims of the NC – Fluency, Reasoning and Problem Solving. However, lessons in Year 4 and Year 6 will look very different to those in the rest of the school as we are trialling teaching from the NCETM Mastery Curriculum.

**Mathematics Planning in Year 4 & Year 6.**

**Whole Class Teaching.**

In line with guidance from Singapore and Shanghai we teach to the whole class in mixed ability pairs for the core Maths lessons. Children are not labelled and all receive the same teaching following the No Problem sequence of learning. Mixed ability pairings and support from teaching staff provide the scaffolding for those that may be slower to grasp concepts; challenges to deepen mathematical understanding are available to all who grasp a concept quickly. If a child is not securing the basics of the concept being taught they receive a same day intervention; those that have grasped it apply their knowledge more deeply. This means that those receiving bespoke teaching may change from day to day.

**Longer and deeper.**

We have moved away from the cyclical sequence of planning, Rising Stars, which the rest of the school follows. We spend longer on topics to fully “master” the concepts and do not return to them. Each lesson is therefore a sequence of baby-steps, which can appear slow and not obviously abundant with progress, but ,in reality, the carefully crafted series of tasks builds variation into learning, thus fostering true understanding, which leads to enhanced progress overall, allowing each key conceptual idea to build onto the next. This scheme mirrors the White Rose Scheme of Learning and assessment; we have adjusted our own assessment criteria (currently based on the Rising Stars Sequence) to reflect the fact that some of the KPI’s will not be taught until the third term. Teachers in Year 4 and Year 6 give a “best fit” judgement when moving a pupil up a step as it would not be possible to meet all the criteria till the end of the year unlike the cyclical sequence where each criterion will have been taught by the end of Term 1 and then revisited.

**Planning.**

We do not expect detailed written plans as the journey is very clearly laid out in the White Rose Scheme of Work, supported by the No Problem workbooks and NCETM resources. Teachers produce visual lessons via smartboard.

**Lesson Structure**

One lesson a week focuses on Arithmetic Skills – recorded in Maths Folders.

One lesson a week focuses on problem solving using a variety of contextual approaches and resources from STOPS problem solving. Recorded in Maths Books.

Three lessons a week are as follows:

**Exploration**

In their mixed ability pairs pupils explore, without teacher input, a problem linked to the key concept being taught. This usually has a real life context. Children have the opportunity to use manipulatives. The LI for the day is not disclosed and pupils are encouraged to think what it might be. Possible solutions are discussed with emphasis on “how” they have come to a particular answer rather than on the answer itself.

Different strategies will be discussed and then teaching will follow focused on the key concept of the day.

Children will have the opportunity to practise this concept by exploring a series of similar problems each showing a slight variance. This step by step guided approach encourages exploration and ideas sharing but always comes back to the concept being taught that day.

**Questioning**

Skilled questioning is used throughout to check every child understands. Key questions: Do you agree? Why? How do you know? Can you prove it? Why is that the right/wrong answer? Are you sure? What’s the same? What’s different? Can you explain that? Is there another way to approach/solve this? Children are encouraged to explain another child’s response to ensure all are grasping key concepts.

The nature of this repeated questioning means more talking in lessons and less written recording but understanding is deepened and this is shown in the written work that is recorded and carried out independently.

**Same day intervention.**

At the independent stage of their intelligent practise if pupils are moving too slowly then a same day intervention is given with either the TA or class teacher to ensure that all have grasped the key concept and are ready to build on this in the next planned lesson. This intervention runs separately to other targeted interventions which occur in the afternoons and can include ANY child regardless of their ability.

**Maths teaching throughout the other Year groups.**

Once our Mastery trial period is over we intend to roll out the Mastery Curriculum, as detailed previously, across KS1 and KS2. This will be conducted and planned in liaison with the NCETM training group.

Until such time, the remaining year groups are following the Rising Stars planning sequence of teaching and assessment. Some classes are trialling mixed ability pairings in some lessons. All classes are incorporating elements of Mastery in their practice. Each year group incorporates Arithmetic skills testing and problem solving within their weekly planning sequence.

Teachers are expected to ensure that all the KPIs for each year group are secure if an aged-related STEP is to be given. If a KPI is not judged to be in place then a bespoke intervention programme must be put in place.

In conclusion, we see our Maths practice to be ever evolving and dynamic; it is responsive to the need for change and definitely not set in stone. We value any feedback and welcome any questions you may have.