



The Maths Charter – 2019/2020

When studying maths children should:

- Become **fluent** in the fundamentals of mathematics, including, through varied and frequent practice with increasingly complex problems over time, so that children have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately
- **Reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- Can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Maths should:

Allow all children to be able to see mathematics as an interconnected subject and be able to make connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. We want our children to apply their mathematical knowledge to science and other subjects within the curriculum.

What does mathematics look like at Christopher Pickering?

Whole class together - we teach mathematics to whole classes and do not label children (this includes within the classroom). Lessons are planned based on formative assessment of what students already know and we include all children in learning mathematical concepts. At the planning stage, teachers consider what scaffolding may be required for children who may struggle to grasp concepts in the lesson and suitable challenge questions for those who may grasp the concepts rapidly. Decisions are not made about who these children may be prior to the lesson.

Deeper — our long term plan, based on the WRM, focuses on a clear coherent journey through mathematics across each year to address the aims of the national curriculum. Concepts are taught in a structured way to build a secure knowledge and understanding before moving onto something new. Connections between mathematical concepts are made explicit.

Representations— mathematical models, images and representations are an integral part of the mathematics curriculum. Concrete and pictorial materials are essential to expose mathematical structure for children. Children cannot hold mathematics in their heads if they haven't first held it in their hands.

- Teaching for mastery is visible in all year groups across, including the EYFS.
- Some children will require extra support either during or after lessons to enable them to master certain concepts or elements. This will be carried out



immediately to allow the child the ability to access the next lesson.

- Lessons will feature a lot of dialogue between the teacher and the pupils and between the children.
- Longer time will be given to each topic of the Maths curriculum to ensure sufficient depth of understanding.
- Differentiation will mainly be through the level of adult support each child receives. Generally, children will not be given different activities to complete. But will have access to varying manipulatives to help them.