

Mathematics Calculation Policy Statement

Throughout the Trinity Federation, we have developed a teaching for mastery approach.

'Mastering maths means pupils of all ages acquiring a deep, long-term, secure and adaptable understanding of the subject. The phrase 'teaching for mastery' describes the elements of classroom practice and school organisation that combine to give pupils the best chances of mastering maths. Achieving mastery means acquiring a solid enough understanding of the maths that's been taught to enable pupils to move on to more advanced material.'

- *National Centre for the Excellence of Teaching in Mathematics (NCETM)*

A teaching for mastery approach prioritises a deep conceptual understanding of maths which moves us away from rapid acceleration through material. Our belief is that all pupils are capable of achieving in mathematics and our calculation policy outlines essential small steps which enhances each child's mathematics experience.

Our policy follows the National Curriculum through the NCETM materials. It has been carefully developed through extensive training and understanding of the mastery principles by our Mastery Leads within each of our schools. Each key operation has been separated and prioritised into year clusters highlighting the journey of mathematics throughout our schools. Our class teachers, through their own mastery knowledge and experience, design lessons to ensure the key mathematics concept is exposed.

Trinity Federation Calculation Policy

Lessons are built on these principles of a mastery lesson or the Five Big Ideas:

- Mathematical thinking: Key concepts are thought about, discussed and reasoned with.
- Representation and Structure: Differing representations are used throughout the lesson to expose the structure being taught.
- Fluency: Quick and efficient recall of key facts and procedures. Children also show flexibility to move between different contexts and representations.
- Variation: Firstly, teachers represent concepts in more than one way, to highlight 'what is' and 'what is not'. Secondly, variation refers to the sequence of how mathematics concepts are exposed and practised in class, paying attention to what is the same and what is different – the relationship and structure of the concept.
- Coherence: 'Putting it all together'. Lesson design shows small, connected steps which provide access to all children in class. Key concepts can be applied in a range of contexts.

A key feature of the mastery approach is designing lessons using a concrete, pictorial and abstract approach. Throughout our schools, all children have the opportunity to use a range of concrete resources such as Numicon, place value counters, tens frames, Cuisenaire rods and dienes blocks supporting and exposing the key concept being taught. Other strategies including modelling, problem solving, questioning and intelligent practice, drawing attention to patterns and structures within the mathematics enabling deeper conceptual understanding. Children access support if needed and may also have

Trinity Federation Calculation Policy

the opportunity to be pre-taught concepts prior to whole class teaching. Children are challenged through open ended activities as well as through questioning.

Accompanying this policy statement are a series of documents which outline the essential small steps which enhance each child's mathematical experience for each of the four operations: addition, subtraction, multiplication and division.

Appendices

Appendix 1	EYFS Addition, Subtraction, Multiplication and Division
Appendix 2	Year 1 and 2 Addition and Subtraction
Appendix 3	Year 1 and 2 Multiplication
Appendix 4	Year 1 and 2 Division
Appendix 5	Year 3 and 4 Addition
Appendix 6	Year 3 and 4 Subtraction
Appendix 7	Year 3 and 4 Multiplication
Appendix 8	Year 3 and 4 Division
Appendix 9	Year 5 and 6 Addition
Appendix 10	Year 5 and 6 Subtraction
Appendix 11	Year 5 and 6 Multiplication
Appendix 12	Year 5 and 6 Division
Appendix 13	Reception to Year 6 Fractions, Decimals and Percentages

Date of policy: January 2022

Date of review: January 2024