



Discovery Multi-Academy **Maths Curriculum Statement**

Quote that guide us:

'Pure mathematics is, in its way, the poetry of logical ideas.' Albert Einstein

Why is it important to teach Mathematics? (Intent)

At Discovery Multi-Academy Trust we are dedicated to ensuring that children are able to distinguish the importance of Mathematics in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of diverse contexts. We want all children to enjoy Mathematics and to experience success in the subject, with the ability to reason mathematically in both Maths and other subjects across the curriculum. We are committed to developing children's curiosity about the subject, as well as an appreciation of the beauty and power of Mathematics.

Key Concepts:

- Number (Number and Place Value; Addition and Subtraction; Multiplication and Division; Fractions.)
- Measurement
- Geometry (Properties of Shapes; Position and Direction.)
- Statistics

Curriculum Design (Implementation)

Each school within the Trust follows the National Curriculum for Mathematics. The National Curriculum for Maths aims to ensure that all pupils:

- Become fluent in the fundamentals of mathematics through varied and frequent practice with complexity increasing over time.
- Develop conceptual understanding and ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically; follow a line of enquiry, conjecture relationships and generalisations.
- Develop an argument, justification and proof by using mathematical language.
- Problem solve by applying knowledge to a variety of routine and non-routine problems breaking down problems into simpler steps and persevering in answering

Teachers follow the National Curriculum to ensure that Maths objectives are covered during their timetabled lessons. A wide range of resources are also used to support the teaching of Maths, including White Rose. Multiplication tables are a focus (within school and at home) for KS2 pupils and in KS1 number facts are taught and practised to support with this.

Knowledge Focused

Retrieval practice is the opportunity for all children to recall previous learning, in order to remember it by storing the information in their long-term memory. This previous learning can be

linked to the new learning about to take place or a gap that has been identified from assessments. Each child completes the task and is shared amongst peers. Children can observe if they have been successful, if it's something which they need to improve upon and acts as their next step.

New concepts are shared in a variety of ways. One of these ways includes sharing the concept within the context of an initial related problem, which children are able to discuss in partners. This initial problem-solving activity prompts discussion and reasoning, as well as promoting an awareness of maths in relatable real-life contexts that link to other areas of learning. In KS1, these problems are almost always presented with objects (concrete manipulatives) for children to use. Children are also encouraged to use manipulatives in KS2 and are a part of the Quality First Teaching. Teachers use a range of questions to draw out pupil's thoughts and their reasoning. The class teacher then leads children through strategies for solving the problem, including those already discussed. The approach of adaptive teaching and scaffolding are used to ensure the principle of keep up, rather than catch-up is at the core of teaching and learning. A mathematics lesson includes a series of learning opportunities, each one building on the last to provide children with the confidence to successfully complete the independent practice. Independent practice provides the means for all children to develop their fluency further, before progressing to more complex related problems. Mathematical topics are taught in small blocks, to enable the achievement of 'mastery' over time. The topics are also carefully planned to support the school's thematic approach to ensure the maximum opportunity to retrieve previous learning. Each lesson phase provides the means to achieve greater depth, with more able children being offered rich and sophisticated problems, as well as exploratory, investigative tasks, within the lesson as appropriate.

What we do well as a Trust

Teachers have the flexibility to plan creative, meaningful and contextual lessons. Planning supports the needs of the children and extends those who have the fluency but need reasoning and problem-solving activities to deepen their understanding. The impact of this flexible planning creates independent and resilient learners who thrive on achieving, and being the best, they can be.

Regular and ongoing assessment informs teaching, as well as Point of Need Intervention, to support and enable the success of each child. These factors ensure that we are able to maintain high standards, with achievement at the end of KS2 above the national average and a good proportion of children demonstrating greater depth, at the end of each key stage.