Deanery C.E. Primary School

Maths Policy

November 2019

Introduction

The 2014 National Curriculum states that:

"Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject."

The aims of the 2014 National Curriculum are for our pupils to:

- 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.

The National Curriculum sets out year-by-year programmes of study for key stages 1 and 2. This ensures continuity and progression in the teaching of mathematics.

The EYFS Statutory Framework 2014 sets standards for the learning, development and care of children from birth to five years old and supports an integrated approach to early learning. This is supported by the 'Development matters' non statutory guidance.

The EYFS Framework in relation to mathematics aims for our pupils to:

- develop and improve their skills in counting
- understand and use numbers
- calculate simple addition and subtraction problems
- describe shapes, spaces, and measures

Intent:

At Deanery CE Primary School, we aim that all pupils:

- Are introduced to mathematical concepts, skills and thinking strategies building learning power, essential for everyday life.

- Become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Can solve a variety of problems by applying their mathematical knowledge with increasing sophistication, including in unfamiliar contexts, increasing possibilities to be able to model real-life scenarios.
- Can reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.

Implementation:

Planning:

The National Curriculum for Mathematics 2014, Development Matters and the Early Learning Goals (Number, Shape Space & Measure) provide the long term planning for mathematics taught in the school.

Years 1-6 refer to the White Rose Maths Hub yearly overviews to ensure full coverage of the curriculum in a systematic sequence of learning across and throughout key stages. Alongside this, maths teaching is supported by further resources and additional materials. The White Rose resources provide teachers with exemplification for maths objectives and are broken down into fluency, reasoning and problem solving, key aims of the National Curriculum. They support a mastery approach to teaching and learning and have number at their heart. The resources support the ideal of depth before breadth. They support pupils working collaboratively as a whole group and provide plenty of time to build reasoning and problem solving elements into the curriculum.

Lesson plans are detailed showing differentiated tasks and activities appropriate to the specific year group.

Teaching:

All classes have a daily mathematics lesson. In key stage one lessons are 45-60 minutes and in key stage two at least 60 minutes.

Teachers of the EYFS ensure the children learn through a mixture of adult led activities and child initiated activities both inside and outside of the classroom. Mathematics is taught through an integrated approach.

In Years 1-6, each lesson will include a 'Settling Down' or SD activity. This involves children answering a series of questions about previous learning. The aim of the SD activity is that key maths knowledge is continually revised ensuring it is embedded into pupils' long-term memory.

We use a variety of teaching and learning styles and activities depending on the age group, ability or specific needs of individual children. Pupils are supported in the transition from concrete to pictorial to abstract.

Teachers follow the school Calculation Policy to ensure a consistency in approach and methods used.

Resources:

When introduced to a new topic, children often use concrete equipment to help consolidate their understanding. In school, we use a range of teaching materials such as Numicon, Dienes and bar models to support children's numeric understanding, as well as resources such as weighing scales, metre sticks and teaching clocks when learning about shape, space and measure.

Marking:

Children will be provided with feedback either verbally or through written marking. Often, in order to clarify understanding of a concept, children will be set gap tasks, but not for every lesson; these should be completed by the children at the next earliest opportunity after the lesson. When marking work teachers should adhere to the school's Marking Policy.

Homework:

Homework is set using the online *MyMaths* program to extend children's understanding of topics taught within school. Children are set regular challenges on *TTRockstars* to encourage the rapid recall of multiplication facts. Each day, teachers will give children a short question to record in their homework diaries. This is based on the day's learning and further encourages communication between home and school. In Year 6, children are set SATs revision homework from the Spring term in preparation for the summative assessments in May.

Assessment:

Each term, tracking data is submitted which monitors progress of individual children as well as identifying any gaps in teaching. Teachers assess children on a daily basis and also use summative assessment in the form of termly tests. This information is then used to inform future planning. Interim Assessment sheets are also dated and highlighted in the front of KS1 Maths books, producing further evidence of achievements and areas requiring additional focus.

Inclusion:

Daily mathematics lessons are inclusive to pupils with special educational needs and disabilities. Where required, children have individual targets from the maths framework and teachers keep these in mind when planning work. These targets may be worked upon within the lesson as well as on a 1:1 or small group basis outside the mathematics lesson. Maths focused intervention in school helps children with gaps in their learning and mathematical understanding. These are delivered by trained support staff and teachers, whilst also overseen by the SENCO.

Within the daily mathematics lesson teachers have a responsibility to not only provide differentiated activities to support children with SEND but also activities that provide sufficient challenge for children who are high achievers. It is the teachers' responsibility to ensure that all children are challenged at a level appropriate to their ability.

Positive attitudes towards mathematics are encouraged, so that all children, regardless of race, gender, ability or special needs, including those for whom English is a second language, develop an enjoyment and confidence with mathematics.

The aim is to ensure that everyone makes progress and gains positively from lessons and to plan inclusive lessons.

Role of the subject leadership team:

The SIP identifies a continued focus on setting high yet achievable targets in Maths across the school, to ensure children progress well from their different starting points and exceeding standards expected for their age. The Maths Leaders lead termly Staff Meetings, moderating maths and encouraging staff to reflect on their teaching and the children's learning. Book Trawls and interviews with pupils are also carried out and feedback given to staff to further improve standards. Maths Leaders are also involved in a programme of observing maths teaching throughout the school, providing feedback, support and guidance to class teachers.

Impact:

When pupils leave Deanery Primary School, we hope that we have instilled in them a positive attitude to mathematics as both an interesting and valuable subject and recognising links with everyday life. Our ambition is that pupils develop confidence in working both cooperatively, collaboratively and independently, and have a deep understanding of maths. We are preparing our children for future success by developing their knowledge and skills, developing cultural capital.