Mathematics Curriculum Intent & Implementation

Maths Intent: The Mastery Model of Learning

Our school values (***kindness***, ***readiness*** and ***curiosity***) underpin the intent and implementation of our mathematics curriculum. We recognise that mathematics is an important, creative discipline that helps us to understand and impact the world we live in. We want all pupils to experience the beauty, power and enjoyment of mathematics and to develop a sense of ***curiosity*** about the subject so they can ***readily*** take advantage of every opportunity in life.

We foster positive 'can-do' attitudes, believe all children can achieve in mathematics and teach for secure and deep understanding of mathematical concepts so that they can be applied across different contexts and in real-life situations. We embrace mistakes as an essential part of learning and provide challenge through rich and sophisticated problems before acceleration through new content.

We aim for all pupils to:

- Enjoy learning mathematics, develop a 'can do' approach and understand how it relates to real-life situations.
- Become fluent in the fundamentals of mathematics so that they develop deep and secure conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Solve problems by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios
- Reason mathematically and follow a line of enquiry, developing and presenting justifications, arguments or proofs using accurate mathematical language to communicate with clarity.

Maths Implementation

Maths in the Early Years:
In the Foundation Stage, maths is taught through a carefully sequenced combination of whole class input, small group, adult-led activities alongside continuous provision. When planning for maths in EYFS, there is the same emphasis on, small, manageable steps with an emphasis on number. Children with a secure understanding of a number will be encouraged to deepen their understanding by applying it to situations e.g. role-play scenarios.

Furthermore, they are encouraged to use their creativity and imagination to practice their mathematical skills. We recognise the importance of using the appropriate mathematical vocabulary and promote this. EAL pupils are well supported and provided with additional resources to assist with their mathematical learning.

Whilst formal 'Maths Meetings' are not scheduled in EYFS teaching, teachers and support staff will look out for opportunities to spot digits, subitising of quantities and continuous opportunities to count both forwards and backwards.

Maths in Key Stages 1 and 2

Maths learning for each year group is planned from the relevant National Curriculum objectives. These are blocked into themes or units and then divided into manageable steps to create a coherent mathematical journey through the learning. We use CanDo maths as it is a well sequenced, clear and progressive curriculum which ensures coverage.

New learning is taught through the daily maths lesson and regular practice and review sessions (Maths On Track or MOT Sessions) are used to practice, consolidate and revisit previous learning.

Daily Maths Lessons
New manageable step
Learn together: modelling, representing, use of language to develop conceptual understanding Practise together: assessment for learning Independent intelligent practice

MOT Regular Deliberate Practice Session
Practise, Review, Intervene
Practise to make skilled Intervention Arithmetic Developing fluency

Typical Lesson Design

Learning Together

Hook: Introduction

Teach: live modelling with explicit use of misconceptions and accurate mathematical language to build conceptual understanding.

Practise: Support, challenge and assessment for learning – are the children ready for independent practice? Identify children who need further support.

Independent Intelligent Practice

- About 5 examples, standard and non-standard examples to develop procedural fluency
- Mistakes or misunderstandings (true or false, spot the mistake, reason and explain) to challenge and develop conceptual fluency
- Apply learning to new problems to challenge and deepen mathematical thinking

Review Learning

Skills Session

- Deliberate practice past and present
- Fact Fluency
- Arithmetical Fluency
- Pre-teaching
- Intervention

Maths Impact

What you will see in our classrooms is:

- Children who feel like they can be successful in mathematics
- Children developing conceptual understanding of the mathematics they are learning
- Children explaining their mathematical thinking using appropriate mathematical language and representations
- Equitable provision to meet the needs of individuals and groups within each setting
- Using ongoing formative assessment and a triangulation of summative data, pupil voice and pupil outcomes in book, children will make good progress from their starting points