



Whitchurch Primary School

Maths Implementation

Implementation - How will we deliver the curriculum?

The majority of pupils will move through the programmes of study at broadly the same pace.... Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on (NC 2014 p3).

Key Features of Our Approach:

- The large majority of pupils progress through the curriculum content at the same pace.
- Teachers reinforce an expectation that all pupils are capable of achieving high standards in mathematics.
- Pupils are taught through whole-class teaching, where the focus is on all pupils working together on the same lesson content at the same time.
- Teaching is underpinned by a small-steps curriculum design philosophy and supported by carefully crafted lessons and curated resources to foster deep conceptual and procedural knowledge.
- Differentiation is achieved by emphasising deep knowledge and/or through individual support and intervention.
- If a pupil fails to grasp a concept or procedure, this is identified within the lesson structure and timely intervention ensures the pupil is best placed to move forward.
- Key facts such as multiplication tables and addition facts within 10 are learnt through intelligent practice to develop automaticity; this avoids cognitive

overload in the working memory and enables pupils to focus on new concepts.

High Quality Text Books

The text book scheme 'Maths - No Problem!' is used to support the implementation of our curriculum. However, to ensure that children have an enriching mathematics curriculum, teachers carefully select other resources to support their teaching. Through the use of 'Maths – No Problem!' we ensure:

- Teachers introduce new concepts in a logical sequence.
- Concepts are taught through high quality mathematical models and images.
- Mathematical models are consistently used through school.
- Teachers are supported with their subject knowledge.
- Our calculations policy is consistently applied.

Maths is taught daily in KS1 and KS2. We prioritise the development of basic skills and arithmetic alongside problem solving and reasoning.

Maths teaching in the Early Years (Nursery and Reception) involves providing children with opportunities to develop and improve their skills in counting, understanding and using numbers; calculating simple addition and subtraction problems; and describing shapes, space, and measures. Children will develop their understanding through planned, purposeful play and through a mix of adult-led and child-initiated activity.

From Year 1, lessons are typically broken into four parts:

In Focus/ Anchor Task

The entire class spends time on a question guided by the teacher. Pupils discuss and explore a range of methods to solve the problem. They discuss and reason as they explain their thinking. As they progress through the school they evaluate more. The journals provide pupils with opportunities to show their understanding of the mathematical concepts learnt.

Lets Learn

This introduces new concepts through a Concrete, Pictorial, Abstract approach with the use of engaging pictures and manipulatives. Guided examples are provided for reinforcement. Teachers reinforce non-negotiable learning objectives through direct teaching. Children may be presented with a second version of the infocus task at this stage to work on independently.

Guided Practice

This comprises of questions for further consolidation and for the immediate evaluation of pupils' learning. Children complete tasks either independently, with a peer or collectively as a class. Discussion follows to encourage reasoning and mathematical fluency to be shown.

Workbooks

Pupils independently answer a range of questions directly related to the National Curriculum learning objective. These are arranged in a non- uniform way to allow for children to evidence their mastery of the mathematical concept being taught.

Through journaling, we provide the pupils with the opportunity to deepen their conceptual understanding and reflect on the maths taught.

Pupils who need additional support are given targeted interventions including pre teaching, 1 to 1 tuition as well as keep-up, catch-up sessions on the day. We encourage deep thinking through challenging problems from a wide range of resource, such as: NRiCH, Mathsteasers, White Rose Hub, NCETM and I-See Reasoning. Pupils from Y2 upwards also have the opportunity to take part in local and national challenges in SUMDOG and TTrockstars.

Assessment

Assessment of Maths is ongoing. It should continuously be used to inform teaching. Rapid marking and questioning during lessons enable teachers to make assessments. Rapid intervention takes place to address misconceptions, any gaps in pupils' knowledge and conceptual understanding.