



Shipton Bellinger Primary School Maths Policy

Summer 2025

Aims and Principles

A high-quality mathematics education provides a foundation for understanding the world through developing knowledge of number, calculation, shape and data. It also encourages the ability to reason mathematically, to appreciate the beauty and power of mathematics, and provides a sense of enjoyment and curiosity about the subject.

Intent

At Shipton Bellinger Primary School we aim to ensure that all pupils:

- become fluent in the fundamentals of mathematics through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately, making connections wherever appropriate
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof, using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

In addition to meeting these key aims of fluency, reasoning and problem-solving in maths, we use a 'Teaching for Mastery' approach based on 'NCETM The Five Big Ideas' (<https://www.ncetm.org.uk/resources/50042>)

There are five main principles:

- **Coherence**
Lessons are broken down into small, connected steps that gradually unfold the concept, providing access for all children and leading to a generalisation of the concept and the ability to apply the concept to a range of contexts
- **Representation and Structure**

Representations used in lessons expose the mathematical structure being taught, the aim being that students can do the maths without recourse to the representation

- **Mathematical Thinking**

If taught ideas are to be understood deeply, they must not merely be passively received but must be worked on by the student: thought about, reasoned with and discussed with others

- **Fluency**

Quick and efficient recall of facts and procedures and the flexibility to move between different contexts and representations of mathematics

- **Variation**

Variation is twofold. It is firstly about how the teacher represents the concept being taught, often in more than one way, to draw attention to critical aspects, and to develop deep and holistic understanding. It is also about the sequencing of the episodes, activities and exercises used within a lesson and follow-up practice, paying attention to what is kept the same and what changes, to connect the mathematics and draw attention to mathematical relationships and structure.

At Shipton Bellinger Primary School, we believe that 'Teaching for Mastery' will enable pupils to acquire a deep, long-term and adaptable understanding of maths. It provides an inclusive approach, which enables most pupils to access the same curriculum objectives.

Maths Implementation

Mathematics is a core subject in the National Curriculum 2014, and we use the statutory guidance outlined in the Mathematics Programmes of Study: Key Stages 1 and 2.

In the Foundation Stage, planning follows the structure and recommendations outlined in Development Matters in the Early Years Foundation Stage (Updated September 2023).

In addition, we use the Hampshire Improvement and Advisory Service to structure a spiral curriculum across Key Stage 1 and 2. This is then supported by materials from:

- White Rose – Mastery programme
- NCETM resources, including Mastery Professional Development and assessment materials
- NRICH online resources

Planning

Whilst the HIAS Maths programme informs the pace and depth of study, teachers are encouraged to consider the needs of the cohort, cross-curricular links and practical application when planning teaching units. Therefore, teachers consider the key learning objectives within a unit of study and identify the necessary 'small steps'

required to meet these objectives. Teachers may also assess and revise prior learning, or spend more or less time on certain aspects of the unit, depending on pupils' needs.

The school uses a standard planning format, which is adapted to meet the needs of the Foundation Stage. At the start of a unit, teachers outline the key learning objectives and plot the small steps required. Daily planning specifies the key objective for the lesson, success criteria, fluency and main teaching activities, as well as differentiation and resources.

Fluency in number and number facts is integral to 'Teaching for Mastery.' Without fluency, learning key concepts may stall, as pupil's time and attention is given to completing basic arithmetic. A 'fluency' activity is undertaken daily, either within the main maths lesson or discretely. In EYFS and KS1, pupils focus on counting by rote, including in multiples, and the rapid recall of important number facts, such as number bonds to 10 and 20. In KS2, it is essential that pupils recall multiplication and division facts, key conversion facts, as well as quickly derive answers from facts already known. Fluency activities may link to the main teaching activity to follow or may be taught explicitly.

Lesson Structure

The 'Teaching for Mastery' approach requires a highly active and collaborative practice. Typically, Lessons will last 45 – 60 minutes and follow the following structure:

Recap

A 5 minute task or set of tasks that draw upon the children's prior knowledge from the day before, week before, term before and year before.

Fluency

A short set of fluency questions meant to solidify children's knowledge of number bonds and times tables.

I do, We do, You do

I do - Sharing a practical problem with the whole class, teachers explicitly teach the skill the children need for each lesson.

We do - Teachers then encourage pupils to share their ideas and prior knowledge collaboratively

You do - As pupils become more confident and able to meet the success criteria, they are encouraged to work independently. Others may need continued support from the teacher or teaching assistant.

Practice

Pupils undertake well-chosen activities, using the skills and knowledge developed earlier in the lesson. Some children may continue to need support, others may require greater challenge.

The 'Teaching for Mastery' approach encourages most pupils to make small and successful steps toward the main learning objective in line with age-related expectations.

Assessment and Record Keeping

There are two main forms of assessment:

- **Formative Assessment:** Assessment for learning involves seeking and interpreting evidence to decide where learners are in their learning.
- **Summative Assessment:** Assessment of learning involves any assessment that summarises where the learners 'are' at a given point in time – it provides a snapshot of what has been learnt.

Through questioning, ongoing dialogue with pupils and marking, teachers are able to assess progress and therefore adapt learning to meet pupils' needs. This may occur within a lesson or in readiness for the next activity, i.e. through marking. Teachers may record notes on their planning.

Summative assessment typically involves an age appropriate test – based on what has been taught. At Shipton Bellinger Primary School, we use the following summative assessments:

- Year 2 Practice SATs papers as required, leading to the final SATs papers in May / June.
- Year 6 Practice SATs papers half-termly leading to final SATs papers in May

In addition, each block of learning will begin with an 'Entry' ticket and end with an 'Exit' ticket, to assess the knowledge the children begin the block with and to then reassess at the end of the block.

Marking and Feedback

Effective feedback within lessons is essential to improved learning outcomes. Through active and collaborative activities, which involve assessment questions and challenges, teachers are able to provide verbal feedback throughout maths lessons. In addition, teachers check for misconceptions by marking initial responses within the lesson, and if necessary may use a mini-plenary with some or all pupils to re-teach a particular skill or method and clarify misunderstandings. It is often appropriate and useful for pupils to self-mark or peer-mark and correct errors and self-evaluate within a lesson.

Where learning is marked outside the lesson, this is undertaken in a timely fashion to enable pupils to respond and deal with misconceptions or errors before moving on to new content in the next lesson.

Children who have been identified as not quite grasping the concept will then have immediate same day intervention.

Equality, Diversity and Inclusion

All pupils are provided with equal access to the mathematics curriculum. We provide suitable learning opportunities regardless of gender, ethnicity or home background.

The pupils are taught challenging age-related content and it is the expectation that the majority of pupils will achieve age-related expectations at the end of each year and key stage. A pupil working significantly below their peers, and who is identified as a child with special education needs, will benefit from a more personalised maths programme. In addition, the school's assessment procedures enable us to quickly identify individuals or groups of pupils who are falling below age related expectations. These pupils will benefit from 'catch up' interventions, in addition to the main maths lesson.

A range of interventions, resources and classroom support is used:

- Concrete maths resources, e.g. dienes, Base 10, Numicon, place value grids and counters
- Visual prompts, such as a bar chart, a worked example or 0-9 number digit mat
- Adult support within maths lessons
- Working Wall - providing examples of current learning and visual prompts
- Online maths games, e.g. Times Tables Rockstars
- Fluency interventions, e.g. counting, number bonds, times tables
- 'Pre-teach' - a short teaching episode to introduce key concepts prior to a lesson
- Catch-up - a short teaching episode to consolidate learning or correct misconceptions
- Personalised maths interventions, for instance, using earlier Power Maths resources
- Leaps in Learning (Hampshire maths intervention)

Parental Involvement

The school recognises and appreciates the huge part that parents play in their child's progress in maths and all pupils regularly receive maths as part of their weekly homework. The school believes that the learning undertaken at home should be an extension to the practice at school and in order to fully support their children, parents will be kept informed of the approaches to teaching maths through parental workshops and class information sessions.

In addition to the procedures for termly reporting, should there be any concerns about a child's progress in maths, the teacher will speak to parents at the earliest opportunity to discuss how their child might best be supported. Likewise, successes are also celebrated with parents.

This policy is to be read in conjunction with the Teaching and Learning, Assessment for Learning and Marking and Feedback policies of the school.