MATHS CALCULATION POLICY - YEAR 1

PURPOSE

This policy outlines the agreed approach to teaching calculation in Year 1. It ensures:

- Consistency of models and language across classrooms
- Secure early number sense as the foundation for later calculation
- Full alignment with NCETM Mastery Number and Curriculum Prioritisation
- A coherent progression from concrete → pictorial → abstract

AIMS

- Secure early number sense through structured small-step teaching.
- Prioritise subitising, composition and decomposition of number and early part-whole understanding.
- Use consistent representations to expose structure.
- Build fluency through daily rehearsal and intelligent practice.
- Develop precise mathematical language from the start.
- Depth before acceleration; pupils move together through the curriculum

KEY LEARNING EXPECTATIONS

1. Number Sense and Early Calculation Foundations

Year 1 pupils will:

- Subitise confidently within 5 and increasingly within 10.
- Recognise numbers as composed of smaller numbers.
- Understand part-whole relationships using concrete and pictorial models.
- Compare quantities using language such as greater, fewer, equal.
- Count forwards and backwards within 20 with accuracy and control.
- Begin to reason about number patterns and relationships.

These foundations are also developed through daily Mastery Number sessions.

2. Addition

<u>Conceptual Understanding</u>

- Combining two sets.
- Increasing a quantity.
- Understanding addition as part-whole

<u>Strategies</u>

- Counting on.
- Using known facts (bonds to 5 and 10).
- Subitising to recognise small totals without counting.

<u>Fluency Expectations</u>

- Secure number bonds to 5.
- Developing number bonds to 10.
- Addition facts within 10.

3. Subtraction

<u>Conceptual Understanding</u>

- Removing from a set.
- Finding the difference.
- Understanding subtraction as part-whole.

<u>Strategies</u>

- Counting back.
- Using known bonds.
- Comparing quantities to find the difference.

<u>Fluency Expectations</u>

- Secure subtraction facts within 5.
- Developing subtraction facts within 10.



Equally Important, Equally Different

4. Multiplication (Early Concepts)

Year 1 does not teach formal multiplication but builds conceptual readiness through:

- Equal groups.
- Doubling small numbers.
- Counting in 2s, 5s, and 10s.
- Recognising patterns in repeated structures.

5. Division (Early Concepts)

Year 1 pupils explore:

- Sharing equally.
- Grouping in equal sets.
- Understanding fairness and equal distribution.

6. Fractions (Early Concepts)

Year 1 meet fractions informally through:

- Halving shapes and quantities.
- Doubling and halving as inverse relationships.

REPRESENTATIONS & MODELS

Year 1 teachers will use the following consistently:

- Tens frames for composition and decomposition.
- Part-whole models for addition and subtraction.
- Number tracks for counting forwards and backwards.
- Concrete manipulatives (counters, cubes, objects) for early grouping and sharing.

Representations must be used to expose structure, not as procedural shortcuts.

MENTAL FLUENCY EXPECTATIONS

By the end of Year 1, pupils should have secure fluency in:

- Number bonds to 5.
- Developing number bonds to 10.
- Addition and subtraction facts within 10.
- Counting in 2s, 5s, and 10s.
- Doubling numbers to 10.

Fluency is developed through Mastery Number sessions, daily rehearsal, and structured variation.

WRITTEN METHODS

Year 1 does not introduce formal written methods. Pupils record using:

- Pictures.
- Tens frames.
- Part-whole diagrams.
- Simple number sentences once conceptual understanding is secure.

MATHEMATICAL LANGUAGE

Teachers model and expect precise vocabulary, including:

- Addition: add, plus, altogether, total.
- Subtraction: subtract, minus, take away, difference.
- Multiplication (early): equal groups, lots of, double.
- Division (early): share, group, equal.
- Comparison: greater, fewer, equal.

Language is embedded in daily routines and Mastery Number sessions.

ASSESSMENT

Teachers use:

- NCETM Curriculum Prioritisation Assessments.
- Daily formative assessment through observation and questioning.
- Small-step intervention for pupils needing additional practice.

INCLUSION

All pupils access the same curriculum. Support is provided through:

- Concrete manipulatives.
- Pre-teaching.
- Guided practice.
- Structured rehearsal.
- Challenge is provided through depth, not acceleration.

EXPECTATIONS OF TEACHERS

- Follow NCETM Curriculum Prioritisation for planning.
- Deliver daily Mastery Number sessions.
- Use consistent representations and language.
- Prioritise depth and secure understanding.
- Engage with ongoing professional development linked to mastery.

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