Mastering Number

Reception Overview

Term 1	Term 2	Term 3
Pupils will build on previous experiences of number from their home and nursery environments, and further develop their subitising and counting skills. They will explore the composition of numbers within 5. They will begin to compare sets of objects and use the language of comparison. **Pupils will:** • identify when a set can be subitised and when counting is needed • subitise different arrangements, both unstructured and structured, including using the Hungarian number frame • make different arrangements of numbers within 5 and talk about what they can see, to develop their conceptual subitising skills • spot smaller numbers 'hiding' inside larger numbers	Pupils will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals. **Pupils will:** • continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals • begin to identify missing parts for numbers within 5 • explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian number frame • focus on equal and unequal groups when comparing numbers	Pupils will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice. **Pupils will:** • continue to develop their counting skills, counting larger sets as well as counting actions and sounds • explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame • compare quantities and numbers, including sets of objects which have different attributes • continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2

• connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers • hear and join in with the counting sequence, and connect this to the 'staircase' pattern of the counting numbers, seeing that each number is made of one more than the previous number • develop counting skills and knowledge, including: that the last number in the count tells us 'how many' (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds • compare sets of objects by matching • begin to develop the language of 'whole' when talking about objects which have parts	• understand that two equal groups can be called a 'double' and connect this to finger patterns • sort odd and even numbers according to their 'shape' • continue to develop their understanding of the counting sequence and link cardinality and ordinality through the 'staircase' pattern • order numbers and play track games • join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers	• begin to generalise about 'one more than' and 'one less than' numbers within 10 • continue to identify when sets can be subitised and when counting is necessary • develop conceptual subitising skills including when using a rekenrek

Year 1

1 — Previous Reception experiences and counting within 100
- 1NPV–1 Count within 100, forwards and backwards, starting with any number.
- 1.9 Composition of numbers: 20–100

2 — Comparison of quantities and part–whole relationships
- 1NPV–1 Count within 100, forwards and backwards, starting with any number.
- 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =.
- 1.1 Comparison of quantities and measures
- 1.2 Introducing 'whole' and 'parts': part–part–whole

3 — Numbers 0 to 5
- 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =.
- 1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.
- 1.3 Composition of numbers: 0–5

4 — Recognise, compose, decompose and manipulate 2D and 3D shapes
- 1G–1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.
- 1G–2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.

5 — Numbers 0 to 10
- 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =.
- 1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.
- 1.4 Composition of numbers: 6–10

6 — Additive structures
- 1AS–2 Read, write and interpret equations containing addition (+), subtraction (–) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.
- 1.5 Additive structures: introduction to aggregation and partitioning
- 1.6 Additive structures: introduction to augmentation and reduction

7 — Addition and subtraction facts within 10
- 1NF–1 Develop fluency in addition and subtraction facts within 10.
- 1.7 Addition and subtraction: strategies within 10

8 — Numbers 0 to 20
- 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =.
- 1.10 Composition of numbers: 11–19

9 — Unitising and coin recognition
- 1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.
- 2.1 Counting, unitising and coins

10 — Position and direction
- This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials.

11 — Time
- This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials.

Number and place value
Number facts
Addition and subtraction
Multiplication and division
Fractions
Geometry
Other

Dark grey references are ready-to-progress criteria from the DfE Guidance 2020

Light grey references are from the NCETM Primary Mastery Professional Development materials

Both are available online

Year 2

1 — Numbers 10 to 100
- 2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.
- 2NPV–2 Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.
- 1.8 Composition of numbers: multiples of 10 up to 100
- 1.9 Composition of numbers: 20–100

2 — Calculations within 20
- 2AS–1 Add and subtract across 10.
- 2AS–2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?".
- 1.11 Addition and subtraction: bridging 10
- 1.12 Subtraction as difference

3 — Fluently add and subtract within 10
- 2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice.
- 1.7 Addition and subtraction: strategies within 10

4 — Addition and subtraction of two-digit numbers (1)
- 2AS–3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.
- 1.13 Addition and subtraction: two-digit and single-digit numbers
- 1.14 Addition and subtraction: two-digit numbers and multiples of ten

5 — Introduction to multiplication
- 2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.
- 2.2 Structures: multiplication representing equal groups
- 2.3 Times tables: groups of 2 and commutativity (part 1)
- 2.4 Times tables: groups of 10 and of 5, and factors of 0 and 1
- 2.5 Commutativity (part 2), doubling and halving

6 — Introduction to division structures
- 2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).
- 2.6 Structures: quotitive and partitive division

7 — Shape
- 2G–1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.

8 — Addition and subtraction of two-digit numbers (2)
- 2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.
- 1.15 Addition: two-digit and two-digit numbers
- 1.16 Subtraction: two-digit and two-digit numbers

9 — Money
- This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery Professional Development Materials.

10 — Fractions
- 3.0 Guidance on the teaching of fractions in Key Stage 1

11 — Time
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12 — Position and direction
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13 — Multiplication and division – doubling, halving, quotitive and partitive division
- 2.5 Commutativity (part 2), doubling and halving
- 2.6 Structures: quotitive and partitive division

14 — Sense of measure – capacity, volume, mass
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