Year 1 Unit 8: Numbers to 50 (2 weeks)

Representing groups of 10

Representations suggested in this unit include manipulatives that can be physically grouped into tens by pupils. This includes cubes and bead strings as well as objects such as lolly sticks and pencils. Consider the representations you will use and the contexts that will engage pupils. Dienes equipment is not used in this unit: a Dienes 10 is fixed and cannot be physically broken into ones. At this stage, objects that can be grouped should be used throughout to focus understanding on the tens and ones relationship.
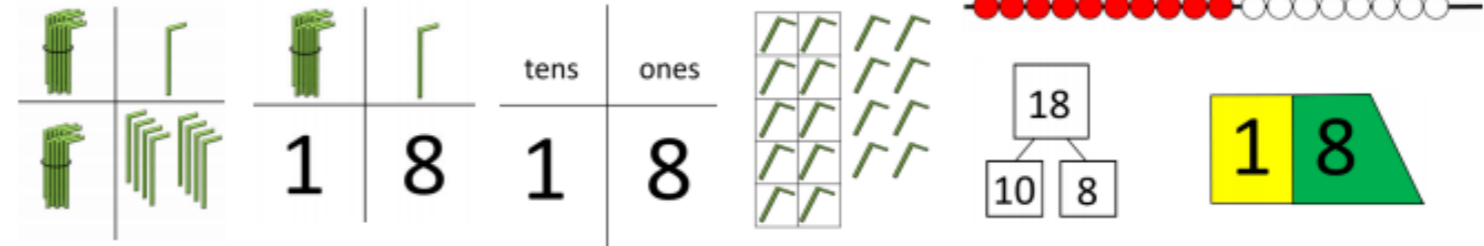
Before you start…
- *What experiences have pupils had in reciting number names from zero to 50?*
- *How secure is pupils' understanding of numbers to 20?*
- *What resources will you need to gather that can be bundled into groups of ten?*

Sequencing numbers

L1 Sequence numbers to 50

The first lesson focuses on pupils' knowledge of the number names from zero to 50 and being able to order these. Opportunities should be provided for pupils to count forwards and backwards to 50 including beginning at different numbers. Pupils identify patterns in the order of numbers such as the repetition of digits 1 to 9. Pupils use this to order numbers to 50 before finding missing numbers in number sequences.

? *What resources will you need to ensure pupils have practical experiences of moving and manipulating the order of numbers?*
? *What questions will you ask to promote pattern seeking?*

Grouping in tens
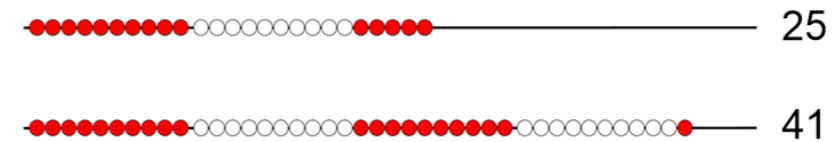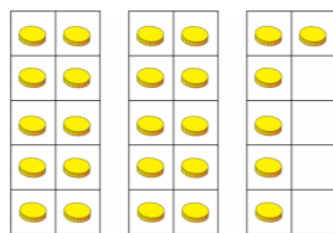*This article from NRICH provides an insight into the importance of teaching a group of ten.*

Applying understanding of tens and ones and place value

L2 Recognise a group of ten as one unit
L3 Identify groups of ten in numbers to 50
L4 Recognise place value
L5 Represent a 2-digit number as tens and ones

Pupils' explore and understand that a group of ten items can be referred to as a group of ten and an entity or unit in its own right. In Lesson 2, multiple representations are used to count to 50, identifying the relationship between the groups of ten and the number name 10, 20, 30 and so on. A bead string is a key representation as its construction supports seeing the groups of ten. In Lesson 3, pupils notice the connection between how a 2-digit number is recorded and how many groups of ten can be made from the number, referring to the remaining ones as 'loose ones'. Multiple representations such as pencils and coins should be used, with opportunities for pupils to physically group in tens. This exploration begins to focus attention on the importance of position in our place value system. In Lesson 4, the place value chart is introduced to deepen understanding of this concept, first using pictorial representations of groups of ten and loose ones before introducing the abstract notation. Lesson 5 develops this further with pupils making connections between different representations to deepen understanding of place value for numbers to 50.

Lesson 10 is a suggested consolidation lesson. This lesson should be used to consolidate learning in response to pupil need.

Exploring number patterns

L8 Count in twos, fives and tens
L9 Explore number patterns

Pupils are familiar with skip counting in different ways and this should be applied to practical representations of 2-digit numbers using a tens frame. In Lesson 8, pupils identify that a number of objects represented in this way can be counted in different ways, making use of rows, columns and groups of ten. Opportunities should be provided for all pupils to count and make connections to concrete representations. Lesson 9 applies understanding of counting and place value through exploring and completing number patterns.

? *How will you ensure all pupils have opportunities to count in different ways?*

Ordering and comparing numbers

L6 Compare and order numbers using place value
L7 Compare and order numbers using a number line

Pupils apply their developing understanding of place value and representing two-digit numbers to 50 to compare and order. Opportunities provided should allow pupils to make numbers in a variety of ways and to begin by comparing the groups of ten to ascertain which number is greater or smaller, consolidating comparison language. Pupils then order three numbers before exploring relative position on a number line in Lesson 7.

? *What prompts will you provide to allow pupils to use a range of positional and comparison language structures?*