# Mini-Map for M.EE.4.NBT. 3 

LEARNING MAPS
Subject: Mathematics
Numbers and Operations in Base Ten (NBT)
Grade: 4

## Learning Outcome

| DLM Essential Element | Grade-Level Standard |
| :--- | :--- |
| M.EE.4.NBT.3 Round any whole number 0-30 to the nearest <br> ten. | M.4.NBT.3 Use place value understanding to round multi-digit <br> whole numbers to any place. |

## Linkage Level Descriptions

| Initial Precursor | Distal Precursor | Proximal Precursor | Target | Successor |
| :---: | :---: | :---: | :---: | :---: |
| Recognize set as a group of objects sharing one or more attributes. Without counting each object, recognize the number of objects in a set. | Recognize a unit as a group of countable objects. Recognize ten as a group of 10 individual objects or 1 ten. Recognize a group of 10-19 objects as 1 ten and a group of remaining ones and a group of 20 or more objects as multiple sets of 10 and a group of remaining ones. <br> Decompose or represent a given number in terms of tens and ones (e.g., $43=4$ tens and 3 ones). | Communicate understanding that the digit in the tens place is formed by grouping objects by tens and the digit in the ones place is composed of individual objects. Round numbers to the nearest ten using place-value understanding: the digit in the tens place is rounded up if the digit in the ones place equals 5 (e.g., 45 is rounded to 50 ) or more and is rounded down otherwise (e.g., 32 is rounded down to 30 ). | Round numbers 0-30 to the nearest ten by using a rounding strategy (e.g., number line, place value). | Round numbers 0-99 to the nearest ten by using a rounding strategy (e.g., number line, place value). Round numbers 100 and beyond to the nearest hundred by using a rounding strategy (e.g., number line, place value). |

## Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?
To round numbers, students first need to know number names, the count sequence, one-to-one correspondence, and have cardinality. These procedures and concepts develop through many experiences in early counting. Perceptual subitizing happens when the student is able to name the amount (1-3 items) without actually counting them. For example when an educator asks the student to get their shoes and asks, "How many shoes do you have?" The student would reply, "two" without using the count sequence of one, two. This only happens when students have been given many experiences counting small numbers with many different contexts and materials.

NOTE: Students who are blind will learn to use tactile enumeration for 1-3 items.

## How is the Distal Precursor related to the Target?

As students continue to gain experience in early counting (1-10 items), educators will introduce the concept that 10 can be grouped into one unit. Educators will use models that help students perceive a group of 10 and some more (e.g., bundles, ten frames, number line, arrays). Teen numbers are an important part of understanding this concept.

## Instructional Resources

| Released Testlets |
| :--- |
| See the Guide to Practice Activities and Released Testlets. |
| Using Untested (UN) Nodes |
| See the document Using Mini-Maps to Plan Instruction. |

M.EE.4.NBT. 3 Round any whole number 0-30 to the nearest ten.


| Map Key |  |
| :--- | :--- |
| IP | Initial Precursor |
| DP | Distal Precursor |
| PP | Proximal Precursor |
| T | Target |
| S | Successor |
| UN | Untested |
| Boxes indicate tested |  |
| nodes |  |

