Mini-Map for M.EE.8.NS.2.a

Subject: Mathematics
The Number System (NS)
Grade: 8

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.8.NS.2.a Express a fraction with a denominator of 100 as a decimal.	**M.8.NS.2** Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2).

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Communicate understanding of "separateness" by recognizing objects that are not joined together. Communicate understanding of a set by recognizing a group of objects sharing an attribute.	Divide a set (e.g., 8 crayons) into two or more equal subsets (e.g., two subsets of 4 crayons). Demonstrate understanding of a unit fraction (e.g., 1/4) as the quantity formed by one part when a whole is partitioned into *n* (e.g., 4) equal parts.	Communicate understanding that a decimal point is a dot that separates the whole number from the fractional part of a number. Represent a fraction with a denominator of 10 as a decimal.	Represent a fraction with a denominator of 100 as a decimal (e.g., 52/100 as 0.52).	Compare two decimals to the tenths or hundredths place using symbols (i.e., =, <, >) to show that one is greater than, less than, or equal to the other.

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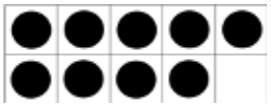
Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

Converting a fraction to a decimal requires a student to be able to recognize that two or more sets or groups of items exist. Work on this skill using a variety of sets. Help students recognize when items are grouped together into a set or separated out. As educators present a set, they label it (e.g., two balls, one marker, three CDs), count the items, label it again, and encourage students to use numerals to label and count the separate sets. Use tools like the ten-frame to point out whole and parts (e.g., a row of 5 dots and a row of 4 dots are parts or subsets of 9).

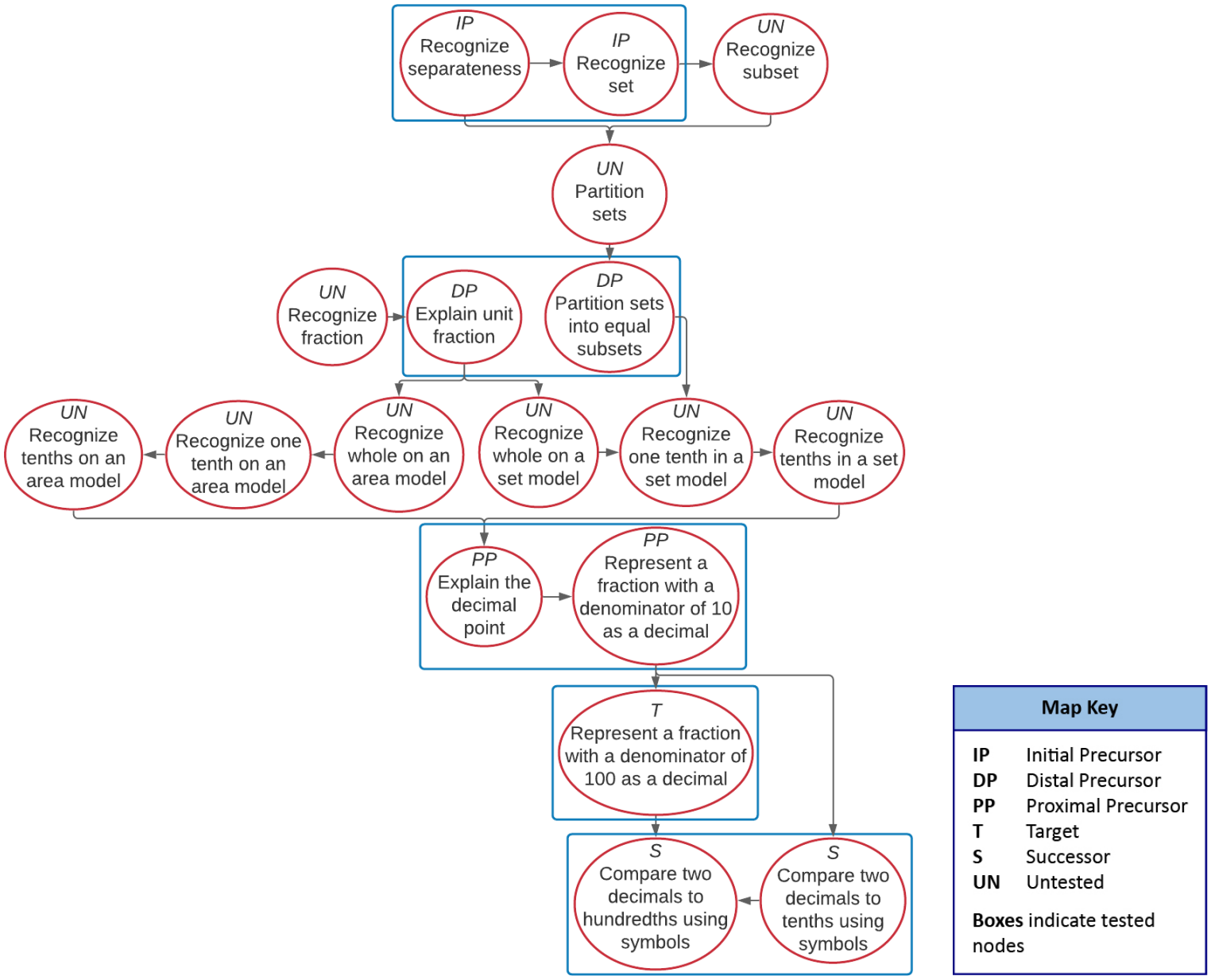


How is the Distal Precursor related to the Target?

As students become more adept at tracking discrete objects, they will begin working on one-to-one distribution of objects to person, objects to objects, and objects to available space (e.g., giving each person in the group a pencil; given four counters, they would line up four more counters in front of or on top of the first set; given three chairs at a table, the student would place a cup on the table for each available chair). As students understanding of one-to-one distribution develops, provide students many opportunities to recognize equivalence in sets with same items and then sets with differing items. As students work on all these skills and concepts, continue to draw their attention to parts and wholes.

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.

[Link to Text-Only Map]

M.EE.8.NS.2.a Express a fraction with a denominator of 100 as a decimal.