Mini-Map for M.EE.3.OA.4
Subject: Mathematics
Operations and Algebraic Thinking (OA)
Grade: 3

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.3.OA.4 Solve addition and subtraction problems when result is unknown, limited to operands and results within 20.	**M.3.OA.4** Determine the unknown whole number in a multiplication or division equation relating three whole numbers.

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.	Combine two or more sets of objects to create a new set. Divide a set of 10 or fewer objects into two or more distinct subsets. Demonstrate an understanding of addition by combining the objects of both the sets, and demonstrate an understanding of subtraction by removing some objects from a larger set.	Identify the addition, subtraction, and equal signs. Understand that the "+" sign indicates the numbers on either side of the sign should be added together, that the "-" sign indicates one number should be "taken away" from another number, and that the "=" sign indicates that quantities on either side represent the same value. Represent addition or subtraction word problems or models with equations (e.g., representing 6 marbles	Find the unknown sum (e.g., 5 + 8 = ?) or the missing addend (e.g., 6 + ? = 10) in an addition equation. Find the unknown difference in a subtraction equation (e.g., 12 - 7 = ?).	Determine the unknown quantity in join, part-part-whole, compare, or separate word problems.

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
		plus 2 marbles equal 8 marbles as 6 + 2 = 8 marbles).		

Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

Understanding how to add and subtract requires a student to be able to recognize a set or group of items (also see M.3.OA.1-2). Students need many opportunities to experience quantities and numerals in context across the school day. Educators provide lessons using a variety of sets to model early counting. Teach students to recognize when items are grouped together into a set or separated out. The educator presents a set, labels it (e.g., two balls, one bear, three blocks), counts the items, labels it again, and encourages students to use numerals to label and count the separate sets.

How is the Distal Precursor related to the Target?

As students begin to understand labeling and counting small sets, educators will highlight the differences between sets on the basis of overall area or discrete number using the words "more," "less," and "same." Provide students with multiple opportunities to count and compare a wide variety of sets with an increasing number of items, label the set (e.g., eight ball, 12 bears, 15 blocks), and move items in and out of the sets, labeling and counting them again (e.g., "You just said this set has 11 cubes; if I take two cubes, how many will you have?").

NOTE: Educator can work on the Distal Precursor level using the sets of numbers that students working at the Target level are adding and subtracting.

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.

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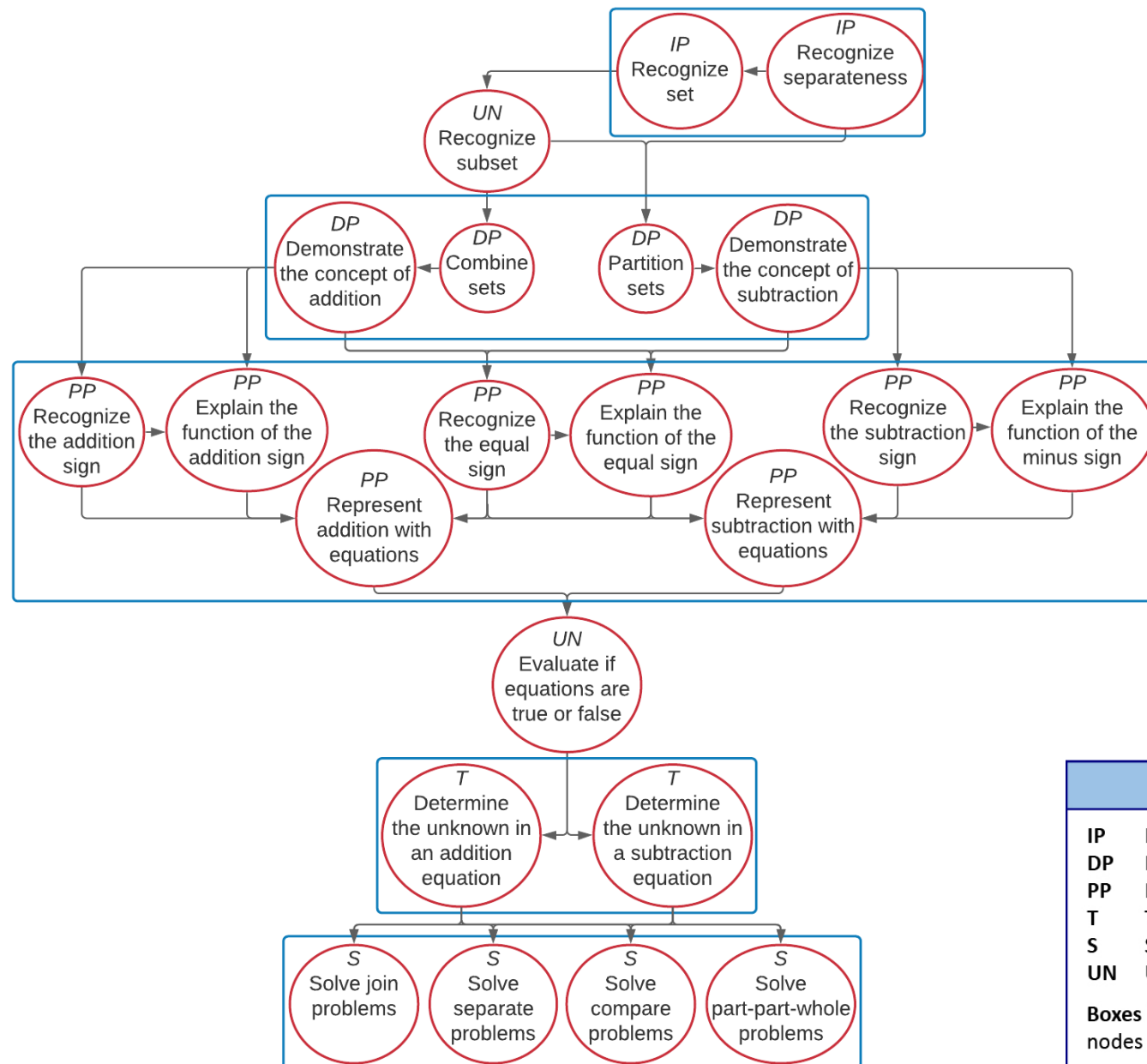
Map Key

IP	Initial Precursor
DP	Distal Precursor
PP	Proximal Precursor
T	Target
S	Successor
UN	Untested

Boxes indicate tested nodes