

Mini-Map for M.EE.4.MD.3

Subject: Mathematics

Measurement and Data (MD)

Grade: 4

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.4.MD.3 Determine the area of a square or rectangle by counting units of measure (unit squares).	M.4.MD.3 Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Communicate understanding of "separateness" by recognizing objects that are not joined together. Communicate generic understanding of "some" as a certain amount or a number of people or things.	Recognize enclosure as an enclosed space that lies within a boundary that distinguishes it from the space that lies outside the boundary.	Communicate understanding that a unit square is a square with edge lengths of 1 unit and area of 1 square unit. Communicate understanding of area as the measure of space contained within the outline or boundary of a two-dimensional object or figure.	Calculate area of a square or rectangle by filling a figure with unit squares or tiles and counting the total number of unit squares or tiles. Calculate area of a square or rectangle by counting the number of square units drawn to cover the area.	Solve real-world problems by determining the area of a square or a rectangle. The area of a square or a rectangle can be calculated by counting the number of unit squares or tiles.

Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

Understanding how to calculate area requires a student to be able to recognize groups of items as a set, not just as individual objects. Work on this skill using a variety of sets. Help students recognize when items are grouped together into a set or separated out. As you present a set, label it (e.g., two balls, one bear, three blocks), count the items, label it again, and encourage students to use numerals to label and count the separate sets.

NOTE: Educators can work on the Initial Precursor level using the sets/arrays that students working at the Target level are calculating area.

How is the Distal Precursor related to the Target?

As students begin to understand labeling and counting small sets (1-4), they begin to use the number sequence, and students become more adept at tracking individual objects and can recognize groups as having more and less on the basis of overall area. Work on this skill using a variety of arrays, labeling and counting the array, moving items in and out of the array, then labeling and counting the array again.

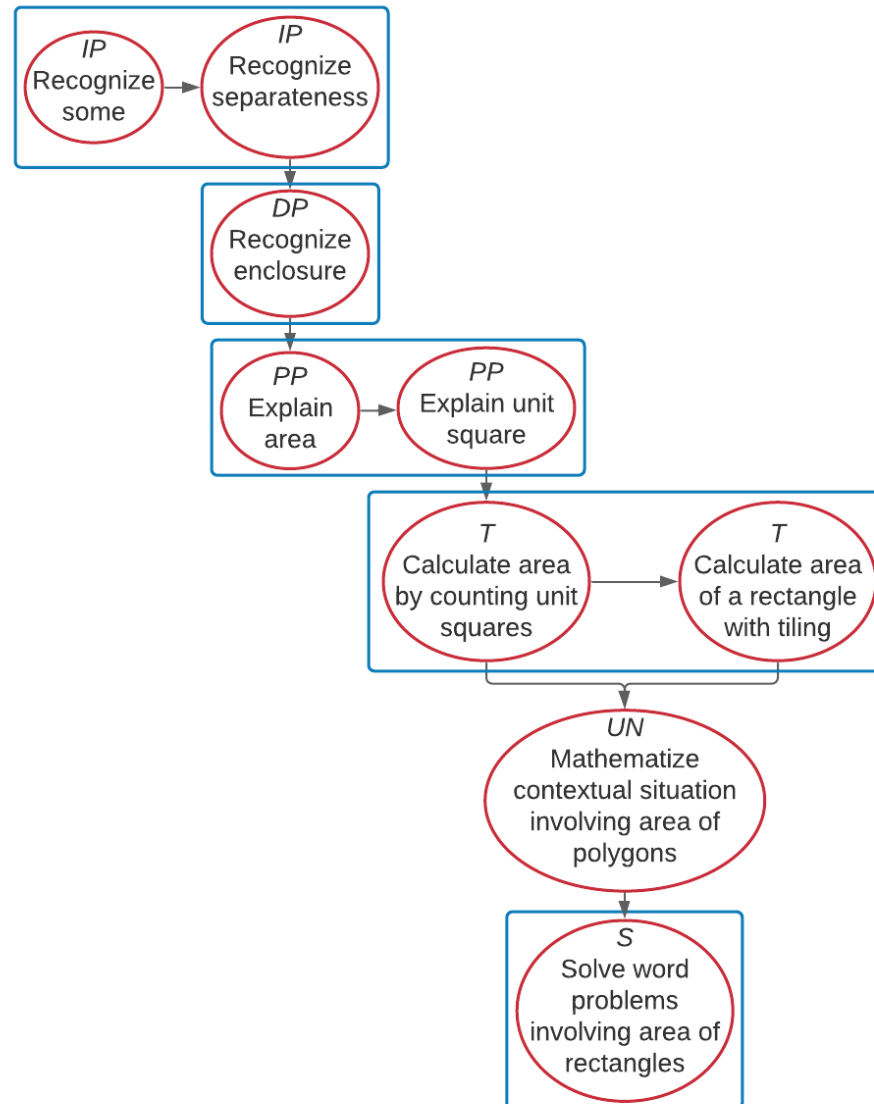
NOTE: Educators can work on the Distal Precursor level using the sets/arrays that students working at the Target level are calculating area.

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.4.MD.3 Determine the area of a square or rectangle by counting units of measure (unit squares).



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