

Lesson 11: Area and the Multiplication Table (Optional)

Standards Alignments

Building On	3.OA.B.5
Addressing	3.MD.C.7.b, 3.OA.B.5, 3.OA.D.9
Building Towards	3.MD.C.7.d

Teacher-facing Learning Goals

- Explore connections between area and the multiplication table.

Student-facing Learning Goals

- Let's explore area and the multiplication table.

Lesson Purpose

The purpose of this lesson is for students to explore connections between area and the multiplication table.

This lesson introduces students to the multiplication table as a way to organize and find products of two whole-number factors (up to 10). Students begin by marking rectangles on blank multiplication tables, always starting from the upper left corner, and finding their areas. They see that the area of each rectangle is the product of the numbers at the right and bottom boundaries of the rectangle.

Through repeated reasoning, students see that finding the value of each cell in the table is like finding the area of a rectangle whose side lengths are a number from the top of the table and one from the left. Along the way, students notice patterns in the table and make use of them to complete the rest of the table (MP8).

This lesson is optional because it gives students more time to take a deeper look at the relationship between multiplication and area, and make addition connections.

Access for:

Students with Disabilities

- Representation (Activity 1)

English Learners

- MLR8 (Activity 2)

Instructional Routines

How Many Do You See? (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min
Lesson Synthesis	10 min
Cool-down	5 min

Teacher Reflection Question

Which multiplication facts did students seem most confident in as they found products in the multiplication table? For ones they did not know right away, what strategy did they go to?

Cool-down (to be completed at the end of the lesson)

🕒 5 min

What's the Product?

Standards Alignments

Addressing 3.MD.C.7.b

Student-facing Task Statement

What is the missing product? Explain your reasoning.

×	1	2	3	4	5
1					
2					
3					
4				?	
5					

Student Responses

16. Sample response: I saw there are 4 squares in each row so I counted 4, 8, 12, 16.