

Lesson 5: Products Beyond 100

Standards Alignments

Building On	3.OA.A.3
Addressing	4.NBT.B.5
Building Towards	4.NBT.B.5

Teacher-facing Learning Goals

- Multiply two-digit by one-digit whole numbers in ways that make sense to them.

Student-facing Learning Goals

- Let's find products beyond 100.

Lesson Purpose

The purpose of this lesson is for students to find the product of a one-digit number and a two-digit number in ways that make sense to them.

In grade 3, students learned about multiplication and learned to find products within 100. Earlier in this course, students identified factors and multiples, performed multiplicative comparison with whole numbers and fractions, and used the structure of base-ten numbers and properties of operations to find multiples of 10, 100, 1,000, and so on.

This lesson is the first in a series focused on finding whole-number products beyond 100. Here, students reason about equal-group situations involving one-digit and two-digit numbers in any way that makes sense to them. In the first activity, students work with an array of objects to build on a familiar representation. In the second activity, no visual representation is provided. Students may find products by creating arrays or diagrams, decomposing a factor into smaller numbers or place value, and using their understanding of properties of operations.

Access for:

Students with Disabilities

- Representation (Activity 2)

English Learners

- MLR2 (Activity 1)

Instructional Routines

MLR7 Compare and Connect (Activity 1), Number Talk (Warm-up)

Materials to Gather

- Tools for creating a visual display: Activity 1

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

What was the best question you asked students today? Why would you consider it the best one based on what students said or did?

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

 5 min

Rows of Seats

Standards Alignments

Addressing 4.NBT.B.5

Student-facing Task Statement

A theater has 8 rows of seats and 27 seats in each row. How many seats are in the theater? Show your reasoning.

Student Responses

216 seats. Sample response:

- Eight rows of 20 is 160, and 8 rows of 7 is 56. $160 + 56 = 216$
- Eight rows of 30 is 8×30 , which is 240. Because there are 27 seats per row and not 30 seats per row, I subtracted 8×3 or 24 from 240, which gives 216.
- I know 2×27 is 54, so 4×27 is twice 54 or 108, and 8×27 is twice 108, which is 216.