

Lesson 12: Multiply Multiples of Ten

Standards Alignments

Addressing 3.NBT.A.3

Teacher-facing Learning Goals

- Multiply one-digit whole numbers by multiples of 10 using strategies based on place value and the properties of operations.

Student-facing Learning Goals

- Let's multiply one-digit numbers times multiples of 10.

Lesson Purpose

The purpose of this lesson is for students to multiply one-digit numbers by multiples of 10.

The work of this lesson connects to previous work because students have used strategies based on properties of operations to multiply within 100. Now, students extend this work and consider place value to multiply one-digit numbers by multiples of 10. Students complete a problem in context in which they explore how 180 can be grouped into multiples of ten in different ways. Students analyze two strategies for multiplying a single-digit number by a multiple of ten, then complete similar problems using the strategy of their choice. Throughout the lesson the associative property is used as a strategy to think of problems like 3×60 as 18 tens or 18×10 .

When students decompose multiples of ten in different ways as a strategy to multiply, they are looking for and making use of structure (MP7).

Access for:

Students with Disabilities

- Engagement (Activity 1)

English Learners

- MLR8 (Activity 1)

Instructional Routines

Notice and Wonder (Warm-up)

Materials to Gather

- Base-ten blocks: Activity 1, Activity 2

Materials to Copy

- Centimeter Grid Paper - Standard (groups of 2): Activity 1

- Centimeter Grid Paper - Standard (groups of 2): Activity 2

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

Students have used place value in past lessons to add and subtract. In this lesson, how do they begin using place value as a strategy to multiply multiples of 10?

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

 5 min

What's the Value?

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Student-facing Task Statement

Find the value of 6×40 . Explain or show your reasoning.

Student Responses

240. Sample response: I decomposed 40 into 4×10 , then multiplied 6×4 to get 24. Twenty-four tens is 240.