Lesson 17: Multiply Decimals and Whole Numbers

Standards Alignments

Addressing   5.NBT.B.7, 5.OA.A.2
Building Towards   5.NBT.B.7

Teacher-facing Learning Goals

- Multiply a whole number by tenths and hundredths in a way that makes sense to them.

Student-facing Learning Goals

- Let's multiply whole numbers by tenths and hundredths.

Lesson Purpose

The purpose of this lesson is for students to multiply a whole number by any amount of tenths or hundredths.

In previous lessons students made sense of decimals to the thousandth and added and subtracted decimals to the hundredth. The goal of this lesson is for students to multiply decimals to the hundredth in a way that makes sense to them. They apply their work with decimal place value and multiplication of whole numbers. Students may draw pictures (hundredths grids or tape diagrams) or reason using place value or properties of operations (distributive and associative). As with addition and subtraction of decimals, students see that for multiplication, they can use what they know about whole number multiplication as long as they pay close attention to place value.

Access for:

⚜ Students with Disabilities

- Action and Expression (Activity 1)

Instructional Routines

MLR3 Clarify, Critique, Correct (Activity 2), True or False (Warm-up)

Materials to Copy

- Small Grids (groups of 1): Activity 1
- Small Grids (groups of 1): 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

If you were to teach this lesson again what would you do the same? What would you change?

Cool-down (to be completed at the end of the lesson)   ⏱ 5 min

Multiply a Decimal by a Whole Number

Standards Alignments

Addressing   5.NBT.B.7

Student-facing Task Statement

Find the value of each expression. Explain or show your reasoning.

1. 2×0.4
2. 4×0.03

Student Responses

1. 0.8. Sample response: 0.4 is 4 tenths and double that is 8 tenths or 0.8.

2. 0.12. Sample response: 0.03 is 3 hundredths and 4 groups of 3 hundredths is 12 hundredths or 0.12.