Unit 2a-Use Models and Strategies To Multiply Decimals

Content Area: **Math**
Course(s): **Math 5**
Time Period: **Marking Period 2**
Length: **MP2 Topic 4 4-1 to 4-9**
Status: **Published**

Essential Questions

- What are some common procedures for estimating and finding products involving decimals?

Big Ideas

- **Number Sense:** Students will learn how to multiply decimals by powers of ten and estimate products of whole numbers and decimals. These skills will help them to develop number sense about the magnitude of decimal products. As students develop strategies for multiplying whole numbers and decimals, they use their number sense.
- **Multiply Decimals:** Students will learn different approaches to multiplying decimals that are closely related. Students will learn to find partial products and use what they learn about multiplying a whole number and a decimal and about multiplying two decimals using a model.

Diversity Integration

Race and Ethnicity

Objective: Students will be able to calculate the total they will spend at 3 restaurants in a country specific to their heritage.

Description of Activity: Students will research three different restaurants from their heritage. The students will pick 3 items on the menu of their choice. Then, they will roll dice to determine what to multiply the cost by. This will represent the quantity of each item ordered. Once students have found the total for each item, they will add them together to find a total cost for the restaurant. Students will repeat this process for two other restaurants. Students will share their data with the class.

Enduring Understandings

Number and Operations in Base Ten

5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

5.NBT.B.7 [M] Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Mathematical Practices Focus

4. Model with mathematics.