Grade 5

Decimal Place Value

Writing Decimals to Thousandths

MACSS Standards Being Assessed:

5.NBT.1 Understand the relationship between the digits in a multi-digit number.

5.NBT.3a Read and write decimals to thousandths using base ten numerals, number names, and expanded form.
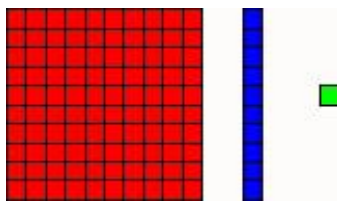
Rationale: Students will develop their understanding of the relationship between the decimal place value positions. In addition, students will represent values in a variety of ways.

Decimals are used to name wholes and parts of a whole.

If you divide one whole by ten, you get one tenth (0.1).
If you divide one whole by 100, you get one hundredth (0.01).
If you divide one whole by 1000, you get one thousandth (0.001).

Base ten blocks can be used to represent decimal values. When a flat is used to represent the value one (1.0), the long can be used to represent one tenth (0.1), and the unit can be used to represent one hundredth (0.01).

Decimal Place Value Chart to the Millionths

ones	.	tenths	hundredths	thousandths	ten thousandths	hundred thousandths	millionths
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	.						
	.						
	.						
	.						

Use digits to write numbers in standard form.

To write decimals in expanded form:
Begin with the largest place value position. Moving left to right, add the values of each digit in the number.

To read and/or write decimal values in word form:
1. Write the number formed by the digits to the left of the decimal point in words.
2. Write the word "and" where the decimal point is.
3. Write the number formed by the digits after the decimal point in words.
4. Add the name of the place value position of the last digit.

Example:
Standard form: 43.987
Expanded form: 40.0 + 3.0 + $^9/_{10}$ + $^8/_{100}$ + $^7/_{1000}$
Word form: forty three and nine hundred, eighty-seven thousandths