Topic B

Decimal Fractions and Place Value Patterns

**5.NBT.3**

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| Focus Standard: | 5.NBT.3 | Read, write, and compare decimals to thousandths.   1. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000). 2. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. |
| Instructional Days: | 2 |  |
| Coherence -Links from: | G4–M1 | Place Value, Rounding, and Algorithms for Addition and Subtraction |
| -Links to: | G6–M2 | Arithmetic Operations Including Dividing by a Fraction |

Naming decimal fractions in expanded, unit, and word forms in order to compare decimal fractions is the focus of Topic B (**5.NBT.3**). Familiar methods of expressing expanded form are used, but students are also encouraged to apply their knowledge of exponents to expanded forms (e.g., 4,300.01 = 4 × 103 + 3 × 102 + 1 × 1/100). Place value charts and disks offer a beginning for comparing decimal fractions to the thousandths but are quickly supplanted by reasoning about the meaning of the digits in each place, noticing differences in the values of like units and expressing those comparisons with symbols (>, <, and =).

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| A Teaching Sequence Toward Mastery of Decimal Fractions and Place Value Patterns |
| Objective 1: Name decimal fractions in expanded, unit, and word forms by applying place value reasoning. (Lesson 5) |
| Objective 2: Compare decimal fractions to the thousandths using like units, and express comparisons with >, <, =.  (Lesson 6) |