Core Content

Cluster Title: Understand the place value system.
Standard 4: Use place value understanding to round decimals to any place.
MASTERY Patterns of Reasoning:
Conceptual: Students will understand rounding procedures with decimal values. **Procedural:** Students can use place value understanding to round decimals to any place. **Representational:** Students can place decimals along the number line to represent the process of rounding. Students can use base-ten blocks, money, fraction bars, etc. to represent rounding decimal amounts.

Supports for Teachers

Critical Background Knowledge
Conceptual: Students will understand the rules and procedures for rounding whole numbers to any targeted value. Students will be able to make use of multiple opportunities for placing decimal values on number lines. Students will understand place value. Students will understand what a benchmark number is. **Procedural:** Students will use benchmark numbers to compare decimals. Students will place benchmark numbers on a number line. Students will be able to round whole numbers. Students will be able to estimate whole number values.

Representational: Students can model rounding of whole numbers with pictures or manipulatives.	
Academic Vocabulary and Notation	
rounding, benchmark numbers, estimate	
Instructional Strategies Used	**Resources Used**
Have students play a memory game of matching cards with a decimal number to cards with that amount rounded to a certain place value. Play the memory game on a computer. (See resources for “Memory game.”) Give a number such as 0.62 and have students draw it on a grid and round to the nearest tenth.	Memory game: http://www.numbernut.com/advanced/activities/estimate_mem20_round10th.shtml
Assessment Tasks Used	
Skill-Based Task: Round 1.069 to the nearest tenth, hundredth and one.	**Problem Task:** If the rounded number is 9.6, what could the original number have been?