Unit 3: Add and Subtract Decimals

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Grade(s)
5
Subject(s)
Mathematics

Unit Focus

In this unit, students will read and write decimals to thousandths using base ten numerals, number names, and expanded form. They will compare two decimals, using <,>, and =. Each learner will use place value to round decimals and all 5th graders will focus on adding and subtracting to hundredths, using concrete models, drawings or strategies based on place value, and properties of operations. They will build on their understanding of addition and subtraction as inverse operations. All strategies will translate into written form, explaining studentsÂ' reasoning. Primary instructional materials for this unit include On Core and Everyday Mathematics.

Stage 1: Desired Results - Key Understandings

Standard(s)	Transfer
Common Core *Mathematics: 5* - Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$. *CCSS.MATH.CONTENT.5.NBT.A.3A* - Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	**T1** (T12) Compose and decompose numbers to establish relationships and perform operations. **T2** (T13) Move from one representation to another without changing the quantity. **T3** (T14) Perform operations within the real and complex number system. **T4** (T50) Based on an understanding of any problem, initiate a plan, execute it and evaluate the reasonableness of the solution. **T5** (T53) Articulate how mathematical concepts relate to one another in the context of a problem or in the theoretical sense. **T6** (T51) Examine alternate methods to accurately and efficiently solve problems. **T7** (T52) Use appropriate tools strategically to deepen understanding of mathematical concepts.
	Meaning

CCSS.MATH.CONTENT.5.NBT.A.1	Understanding(s)	Essential Question(s)
• Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. *CCSS.MATH.CONTENT.5.NBT.A.3B* • Use place value understanding to round decimals to any place. *CCSS.MATH.CONTENT.5.NBT.A.4* • 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. *CCSS.MATH.CONTENT.5.NBT.B.7*	**U1** (U101) When objects/numbers are combined, mathematical rules guarantee the resulting quantity. **U2** (U102) The value of a number is quantified by the placement of its digits. **U3** (U103) The same value can be represented in multiple ways. **U4** (U502) Effective problem solvers identify and apply an appropriate model, tool, or strategy. **U5** (U530) Every problem belongs to a category of problems that has a similar structure and set of characteristics; which means it can be solved using a similar model. **U6** (U550) Attention to detail, such as specifying units of measure and labeling, leads to clarity in expressing mathematical information. **U7** (U562) Mastery of basic facts and rules maximizes conceptual and procedural fluency. **U8** (U520) Effective arguments are based on logical mathematical thinking.	**Q1** (Q101) How do I classify/compare objects or sets of objects? **Q2** (Q204) What is the value of this number/relationship and how can I represent it in different ways? **Q3** (Q104) How do I use my number sense to perform operations? **Q4** (Q503) What strategies/approaches are best for this problem? **Q5** (Q505) Is my answer correct? OR Does my solution make sense? **Q6** (Q563) How does being fluent with basic facts and rules help me solve a complex problem? **Q7** (Q520) Does the argument/thought process/logic make sense?

Acquisition of Knowledge and Skill	
Knowledge	**Skill(s)**
	S1 Recognize that in a multi-digit number, a digit in one place represents 10 times what it represents in the place to its right and 1/10 of what it represents to its left **S2** Read and write decimals to thousandths using base-ten numerals, number names, and expanded form

		S3
		Compare two decimals to thousandths based on the meanings of their digits in each place using <,>, and = symbols
		S4
		Use place value understanding to round decimals to any place value
		S5
		Add and subtract to hundredths, using concrete models, drawings, or strategies based on place value, the properties of operations, and/or the relationship between addition and subtraction (repeated addition and subtraction)
		S6
		Relate strategies to a written method and explain the reasoning used