Topic D

Adding and Subtracting Decimals

5.2A, 5.2B, 5.3A, 5.3D–G, 5.3K

Focus Standards:		5.2A	Represent the value of the digit in decimals through the thousandths using expanded notation and numerals.
		5.2B	Compare and order two decimals to thousandths and represent comparisons using the symbols >, <, or =.
		5.3A	Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division.
		5.3D	Represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models.
		5.3E	Solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers.
		5.3F	Represent quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using objects and pictorial models, including area models.
		5.3G	Solve for quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using strategies and algorithms, including the standard algorithm.
		5.3K	Add and subtract positive rational numbers fluently.
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

Topics D through F mark a shift from the opening topics of Module 1. From this point to the conclusion of the module, students begin to use base ten understanding of adjacent units and whole-number algorithms to reason about and perform decimal fraction operations—addition and subtraction in Topic D, multiplication in Topic E, and division in Topic F (**5.3A, 5.3D–G, 5.3K**).

In Topic D, unit form provides the connection that allows students to use what they know about general methods for addition and subtraction with whole numbers to reason about decimal addition and subtraction

to thousandths (e.g., 7 tens + 8 tens = 15 tens = 150 is analogous to 7 thousandths + 8 thousandths = 15 thousandths = 0.015). Place value charts and disks (both concrete and pictorial representations) and the relationship between addition and subtraction are used to provide a bridge from Grade 4 addition and subtraction with tenths and hundredths to the new unit of Grade 5 - thousandths. Real-world contexts provide opportunities for students to apply their knowledge of decimal addition and subtraction as well in Topic D.

A Teaching Sequence Toward Mastery of Adding and Subtracting Decimals	
Objective 1:	**Add decimals using place value strategies, and relate those strategies to a written method. (Lesson 8)**
Objective 2:	**Subtract decimals using place value strategies, and relate those strategies to a written method. (Lesson 9)**