

Unit 4: Addition and Subtraction Within 100

Unit #:	APSDO-00017507	Duration:	28.0 Day(s)	Date(s):	12-12-2016 to 12-12-2016
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Grades:

2

Subjects:

Mathematics

Unit Focus

In this unit, students will focus on fluency with addition and subtraction within 100. Students will learn to add and subtract within 100, up to four two-digit numbers. They will solve one and two-step word problems, compose and decompose numbers and solve for unknown numbers. Students will use bar models, pictorial models and unknown number boxes to solve word problems. Primary instructional materials for this unit include On Core and Everyday Mathematics.

Stage 1: Desired Results - Key Understandings

Established Goals	Transfer
<p>Common Core <i>Mathematics: 2</i></p> <ul style="list-style-type: none"> • 100 can be thought of as a bundle of ten tens called a hundred. <i>CCSS.MATH.CONTENT.2.NBT.A.1A</i> • Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. <i>CCSS.MATH.CONTENT.2.OA.A.1</i> 	<p>T1 (T22) Describe and/or solve problems using algebraic expressions, equations, inequalities, and functions.</p> <p>T2 (T20) Compose and decompose numbers to establish relationships, perform operations, and solve problems.</p> <p>T3 (T21) Perform operations in a conventional order within the real and complex number system.</p> <p>T4 (T50) Based on an understanding of any problem, initiate a plan, execute it and evaluate the reasonableness of the solution.</p> <p>T5 (T53) Articulate how mathematical concepts relate to one another in the context of a problem or in the theoretical sense.</p> <p>T6 (T51) Examine alternate methods to accurately and efficiently solve problems.</p> <p>T7 (T52) Use appropriate tools strategically to deepen understanding of mathematical concepts.</p>
	Meaning

<ul style="list-style-type: none"> The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). <i>CCSS.MATH.CONTENT.2.NBT.A.1B</i> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. <i>CCSS.MATH.CONTENT.2.NBT.B.5</i> Add up to four two-digit numbers using strategies based on place value and properties of operations. <i>CCSS.MATH.CONTENT.2.NBT.B.6</i> Explain why addition and subtraction strategies work, using place value and the properties of operations. <i>CCSS.MATH.CONTENT.2.NBT.B.9</i> Look for and make use of structure. <i>CCSS.MATH.MP.7</i> Make sense of problems and persevere in solving them. <i>CCSS.MATH.MP.1</i> Reason abstractly and quantitatively. <i>CCSS.MATH.MP.2</i> 	Understandings	Essential Questions
	<p>U1 (U202) The application of specific properties and order of operations can simplify expressions, solve equations, and combine functions.</p> <p>U2 (U204) Substituting a correct value(s) for an unknown makes the mathematical statement/relationship true.</p> <p>U3 (U205) Expressions, equations, inequalities, and functions use symbols to represent quantities, operations, and their relationships.</p> <p>U4 (U501) Effective problem solvers identify relevant information.</p> <p>U5 (U502) Effective problem solvers identify and apply an appropriate model, tool, or strategy.</p> <p>U6 (U512) Mathematicians use diagrams, symbols, and terms to describe problems or situations</p> <p>U7 (U562) Mastery of basic facts and rules maximizes conceptual and procedural fluency.</p>	<p>Q1 (Q200) What rule or pattern can help me simplify the expression or solve this problem?</p> <p>Q2 (Q201) How can I represent this information in symbols/equations/models?</p> <p>Q3 (Q203) What is the relationship between/among these values?</p> <p>Q4 (Q502) What is important here? What is not important?</p> <p>Q5 (Q510) What type(s) of problem is this?</p> <p>Q6 (Q512) What information is needed and how do I use it to solve a problem?</p> <p>Q7 (Q563) How does being fluent with basic facts and rules help me solve a complex problem?</p>
	Acquisition of Knowledge and Skill	
	Knowledge	Skills
	<p>S1</p> <p>Add and subtract within 100</p> <p>S2</p> <p>Add up to four 2 digit numbers</p> <p>S3</p> <p>Solve one and two step word problems involving putting together, taking apart and comparing with unknown numbers in all positions (using bar models, drawings, boxes</p>	

		representing unknown number)
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