

Unit 5: Fluency with Addition and Subtraction within 5

Unit #:	APSDO-00017537	Duration:	22.0 Day(s)	Date(s):	01-03-2017
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Grades:
 K

Subjects:
 Mathematics

Unit Focus

In this unit, students focus on **fluency with addition and subtraction within five**. Students will represent and solve addition and subtraction within 5 using visual or auditory representations (e.g., objects, drawing, clapping). They will be able to decompose numbers less than or equal to 5 into pairs in more than one way. 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: K</i></p> <ul style="list-style-type: none"> Count to 100 by ones and by tens. <i>CCSS.MATH.CONTENT.K.CC.A.1</i> Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. <i>CCSS.MATH.CONTENT.K.OA.A.1</i> When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. 	<p>T1 (T10) Describe, classify, and compare objects/numbers and sets of objects/numbers.</p> <p>T2 (T12) Compose and decompose numbers to establish relationships and perform operations.</p> <p>T3 (T13) Move from one representation to another without changing the quantity.</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	
	Understandings	Essential Questions

<p><i>CCSS.MATH.CONTENT.K.CC.B.4.A</i></p> <ul style="list-style-type: none"> Count forward beginning from a given number within the known sequence (instead of having to begin at 1). <i>CCSS.MATH.CONTENT.K.CC.A.2</i> Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. <i>CCSS.MATH.CONTENT.K.OA.A.2</i> Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. <i>CCSS.MATH.CONTENT.K.CC.B.4B</i> 	<p>U1 (U100) Objects and sets of objects can be given numerical descriptions. U2 (U103) The same value can be represented in multiple ways. U3 (U104) Mathematics is a universal language that uses assumed and logical statements to describe the world. U4 (U512) Mathematicians use diagrams, symbols, and terms to describe problems or situations U5 (U550) Attention to detail, such as specifying units of measure and labeling, leads to clarity in expressing mathematical information.</p>	<p>Q1 (Q100) How do I describe this object/number or set of objects/numbers? Q2 (Q101) How do I classify/compare objects or sets of objects? Q3 (Q103) What is the value of this number/relationship and how can I represent it in different ways? Q4 (Q512) What information is needed and how do I use it to solve a problem? Q5 (Q550) Did I use clear language (symbols, labels, terms, units of measure and significant digits) to explain my reasoning to others?</p>
Acquisition of Knowledge and Skill		
Knowledge		Skills
<ul style="list-style-type: none"> Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$). <i>CCSS.MATH.CONTENT.K.OA.A.3</i> Understand that each successive number name refers to a quantity that is one larger. <i>CCSS.MATH.CONTENT.K.CC.B.4.C</i> Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). <i>CCSS.MATH.CONTENT.K.CC.A.3</i> Count to answer how many? questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 120, count out that many objects. <i>CCSS.MATH.CONTENT.K.CC.B.5</i> Fluently add and subtract within 5. <i>CCSS.MATH.CONTENT.K.OA.A.5</i> Attend to precision. <i>CCSS.MATH.MP.6</i> Reason abstractly and quantitatively. 		<p>S1</p> <p>Write numbers from 0 - 5</p> <p>S2</p> <p>Represent addition and subtraction within 5 using visual or auditory representations (i.e., objects, drawing, clapping)</p> <p>S3</p> <p>Add and subtract within 5 using objects or pictures</p> <p>S4</p> <p>Solve addition and subtraction word problems using objects or drawings</p> <p>S5</p> <p>Decompose numbers less than or equal to 5 into pairs in more than one way</p>

CCSS.MATH.MP.2

S6

Fluently add and subtract within 5 (by the end of the year)