

Appendix

Implementing Common Core State Standards

The first grade operation and algebra standards listed below are the focus of each activity in my unit. Movement, games, dramatic play events, and children's literature are used to teach each of the eight standards.

Common Core Standard 1.OA.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Common Core Standard 1.OA.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Common Core Standard 1.OA.3: Apply properties of operations as strategies to add and subtract. Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)

Common Core Standard 1.OA.4: Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8. Add and subtract within 20.

Common Core Standard 1.OA.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Common Core Standard 1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$). Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Problem: $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ / $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$.

Common Core Standard 1.OA.7: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$. Understand the meaning of the equal sign and determine if equations involving addition and subtraction problems are true or false.

Common Core Standard 1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. Example: $5 + 7 = ?$, $____ - 7 = 5$

