

## ALGEBRA STANDARDS 3-5

**Indicator 1: Use procedures to transform algebraic expressions.**

| Third Grade   | Fourth Grade   | Fifth Grade  |
|---|--|--|
| 3.A.1.1. (Comprehension)<br>Explain the relationship between repeated addition and multiplication.  | 4.A.1.1. (Comprehension)<br>Simplify whole number expressions involving addition, subtraction, multiplication, and division. | 5.A.1.1. (Application) Use a variable to write an addition expression.                               |
| 3.A.1.2. (Knowledge)<br>Identify special properties of 0 and 1 with respect to arithmetic operations (addition, subtraction, multiplication). | 4.A.1.2. (Application)<br>Recognize and use the commutative property of addition and multiplication.                         | 5.A.1.2. (Application)<br>Recognize and use the associative property of addition and multiplication. |
|   | 4.A.1.3. (Application) Relate the concepts of addition, subtraction, multiplication, and division to one another.            |  |

**Indicator 2: Use a variety of algebraic concepts and methods to solve equations and inequalities.**

| Third Grade   | Fourth Grade   | Fifth Grade   |
|---|--|---|
| 3.A.2.1. (Comprehension)<br>Select appropriate relational symbols ( $<$ , $>$ , $=$ ) to compare numbers. | 4.A.2.1. (Comprehension)<br>Select appropriate relational symbols ( $<$ , $>$ , $=$ ) to make number sentences true. | 5.A.2.1. (Application)<br>Write one-step first degree equations using the set of whole numbers and find a solution. |
| 3.A.2.2. (Application)<br>Solve problems involving addition and subtraction of whole numbers.             | 4.A.2.2. (Application)<br>Simplify a two-step equation using whole numbers.  |   |

**Indicator 3: Interpret and develop mathematical models.**

| <b>Third Grade</b>  | <b>Fourth Grade</b>  | <b>Fifth Grade</b>  |
|---|--|---|
| 3.A.3.1. (Application) Use the relationship between multiplication and division to compute and check results. | 4.A.3.1. (Application) Write and solve number sentences that represent one-step word problems using whole numbers. | 5.A.3.1.(Application) Write and solve number sentences that represent two-step word problems using whole numbers. |
|   |  | 5.A.3.2. (Application) Identify information and apply it to a given formula.                                      |

**Indicator 4: Describe and use the properties and behaviors of relations, functions, and inverses.**

| <b>Third Grade</b>   | <b>Fourth Grade</b>  | <b>Fifth Grade</b>  |
|--|--|---|
| 3.A.4.1. (Comprehension) Extend linear patterns.                                   | 4.A.4.1. (Application) Solve problems involving pattern identification and completion of patterns. | 5.A.4.1. (Application) Solve problems using patterns involving more than one operation. |
| 3.A.4.2. (Application) Use number patterns and relationships to learn basic facts. |  |   |