**Grade 7 Unpacked Math Standards – Algebra**

**7.A.1.1**. Students are able to **write** and **evaluate** algebraic expressions using the set of whole numbers**.**

**Webb level: 2**
**Bloom: Knowledge**

**Verbs Defined:**
**Write:** write
**Evaluate:** find the value of

**Key Terms Defined:**
**Algebraic expressions**: combination of numbers, variables and operations
**Set of whole numbers**: counting numbers and 0 (0, 1, 2, 3…)

**Teacher Speak:**
Students are able to write and to evaluate (find the value of) algebraic expressions using the order of operations (excluding nested parentheses) on the set of whole numbers.

**Student Speak:**
I can:
*write algebraic expressions from words.
*find the value of (evaluate) an algebraic expression using a given value.

**7.A.1.2**. Students are able to **identify** associative, commutative, distributive, and identity properties involving algebraic expressions.

**Webb Level: 1**
**Bloom: Knowledge**

**Verbs Defined:**
**Identify**: recognize

**Key Terms Defined:**
**Associative property**: $3 + (n + 5) = (3 + n) + 5$ or $(3a)b = 3(ab)$
**Commutative property:** $5x + 9 = 9 + 5x$ or $xy = yx$
**Distributive property:** $2(x + 7) = 2x + 2(7)$
**Identity property**: $x + 0 = x$ or $1 \bullet x = x$

**Teacher Speak :**

Students are able to identify (recognize) associative, commutative, distributive, and identity properties involving algebraic expressions.

**Student Speak:**
I can recognize (identify) the following properties involving algebraic expressions:
* $3 + (n + 5) = (3 + n) + 5$ or $(3a)b = 3(ab)$ (Associative property
* $5x + 9 = 9 + 5x$ or $xy = yx$ (Commutative property)
* $2(x + 7) = 2x + 2(7)$ (Distributive property)
* $x + 0 = x$ or $1 \bullet x = x$ (Identity property)

**7.A.2.1**. Students are able to **write** and **solve** <u>one-step 1st degree equations</u>, with one <u>variable</u>, using the set of <u>integers</u> and <u>inequalities</u>, with one variable, using the set of <u>whole numbers</u>.

**Webb level:**
**Bloom: Application**

**Verbs Defined:**
**Write:** translate words into mathematical symbols
**Solve:** find the solution

**Key Terms Defined:**
**Integers**: whole numbers and their opposites
**Inequality**: A comparison between two quantities involving one of the following relationships: $<, >, \leq$ *or* $\geq$ .
**1st degree**: an expression with a variable(s) to the 1st power (linear).
**One-step equations**: equations involving one operation
**One-step inequalities**: inequalities involving one operation
**Variable**: a letter or symbol used to represent a number
**Whole numbers**: counting numbers and 0 (0, 1, 2, …)

**Teacher Speak:**
Students are able to write (translate words into mathematical symbols) and solve (find the solution) one-step 1st degree equations, with one variable, using the set of integers and inequalities, with one variable, using the set of whole numbers.

**Student Speak:**
I can
* translate (write) words into equations
* translate (write) words into inequalities.
*find the solution (solve) using inverse operations for one-step equations involving integers (…,-2, -1, 0, 1, 2, ….).
*find the solution (solve) using inverse operations for one-step inequalities ($<, >, \leq$ *or* $\geq$ ) involving whole numbers (0, 1, 2, 3,…).

**7.A.3.1.** Students are able to **identify** and **graph** ordered pairs on a coordinate plane and inequalities on a number line.

**Webb level: 1**
**Bloom: Application**

**Verbs Defined:**
**Identify:** name the coordinates of a given point
**Graph:** locate a point

**Key Terms Defined:**
**Coordinate plane**: plane formed by 2 perpendicular number lines that intersect at their 0 points
**Ordered pair:** a pair of numbers that gives the location of a point in a coordinate plane (x, y)
**Inequality**: a comparison between two quantities involving one of the following relationships: $<, >, \leq$ *or* $\geq$ .

**Teacher Speak:**
Students are able to identify (name the coordinates of a given point) and graph (locate) ordered pairs in Quadrants I-IV on a coordinate plane and locate the solution of an inequality on a number line.

**Student Speak:**
I can name the coordinates of a given point in all the quarters of the coordinate plane (quadrants).
I can name the coordinates of a given point in any of the quadrants.
Given an ordered pair, I can locate the point (graph) in all the quarters of the coordinate plane (quadrants)
Given an ordered pair, I can graph in any quadrant.
I can graph an inequality on a number line.

**7.A.4.1**. Students are able to **recognize** one-step patterns using tables, graphs, and models and **create** one-step algebraic expressions representing the pattern.

**Webb level: 3**
**Bloom: Application**

**Verbs Defined:**
**Recognize**: identify
**Create**: write

**Key Terms Defined:**
**One-step**: one operation
**Tables**: charts

**Graphs**: scatterplots
**Models**: expressions
**Algebraic expressions:** combination of numbers, variables and operations

**Teacher Speak:**
Students are able to recognize (identify) one-step patterns using tables, graphs and models, and create (write) one-step algebraic expressions representing the pattern.

**Student Speak:**
I can look at a chart (table), scatterplot (graph), or expression (model) and:
* identify (recognize) a one-operation (one-step) pattern
* write (create) a combination (algebraic expression) of numbers, letters (variables) and +, - , •, ÷ (operations)
* write (create) an algebraic expression