Cluster 8: Reasoning with Algebraic Expressions

Quarter: 3 **Duration:** 3 Weeks

Content Standards: 6.EE.1, 6.EE.2, 6.EE.3, 6.EE.4, 6.EE.6
Supporting Standards: 6.NS.4
Compacted: 7.EE.1, 7.EE.2

HMH Modules: 8.1, 8.2, 8.3, 8.4, 8.5

Standards

NC.6.EE.1
Write and evaluate numerical expressions, with and without grouping symbols, involving whole-number exponents.
NC.6.EE.2
Write, read, and evaluate algebraic expressions.
• Write expressions that record operations with numbers and with letters standing for numbers.
• Identify parts of an expression using mathematical terms and view one or more of those parts as a single entity.
• Evaluate expressions at specific values of their variables using expressions that arise from formulas used in real-world problems.
NC.6.EE.3
Apply the properties of operations to generate equivalent expressions without exponents.
NC.6.EE.4
Identify when two expressions are equivalent and justify with mathematical reasoning.
NC.6.EE.6
Use variables to represent numbers and write expressions when solving a real-world or mathematical problem.

Supporting Standards:
6.NS.4
Understand and use prime factorization and the relationships between factors to:
• Find the unique prime factorization for a whole number.
• Find the greatest common factor of two whole numbers less than or equal to 100.
• Use the greatest common factor and the distributive property to rewrite the sum of two whole numbers, each less than or equal to 100.
• Find the least common multiple of two whole numbers less than or equal to 12 to add and subtract fractions with unlike denominators.

Compacted:
NC.7.EE.1
Apply properties of operations as strategies to:
● Add, subtract, and expand linear expressions with rational coefficients.
● Factor linear expression with an integer GCF.
NC.7.EE.2
Understand that equivalent expressions can reveal real-world and mathematical relationships. Interpret the meaning of the parts of each expression in context.

Mathematical Practices:
2. Reason abstractly and quantitatively.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Unpacking (link)

Unpacking Document

Instructional Framework (link)

Instructional Framework

Additional Resources

LearnZillion - Expressions

Foldable for Expressions

Order of Operations Song - Youtube

Khan Academy

IXL

Study Jams

Expressions - ck12.org

Expressions - Common Core Sheets

Combining Like Terms Task Cards

Evaluating Algebraic Expressions Activity

Distributive Property

Evaluate the Expression Worksheet

Translate and Evaluate Expressions Activities

Compacted:

Find Someone Who Beginning Activity

Properties of Operations with Rational Numbers Worksheet

Simplify Variable Expressions: Video, Notes, Practice, Real World

SImplify Variable Expressions With Multiple Operations

Working With Expressions Video

Understanding and Interpreting Variables In Expressions

Formative and Summative Assessments: Evaluating Expressions

Rewriting Expressions In Different Forms

7.EE.1 - Quizizz

7.EE.2 - Quizizz