6th Accelerated Unit 3 Framework

Grade: 6 Accelerated Pilot FCPS 2026-2027 Math Grade 6 Accelerated Unit 3 Framework

6th Grade Accelerated Unit 3 - Expressions • **6th Grade Topic 3: Numeric and Algebraic Expressions** • **7th Grade Topic 4: Equivalent Expressions**	**Estimate Time Fr** Planning Calendar

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

Assessment Resource: End of Topic Common Assessment Folder and Pear Assessment Shortcut Links

FCPS Supporting Links	**Additional Supporting Links**
Pacing Guide Unit / Lesson Internalization 6th Grade Topic 3 Standards Resource with Sample Formative Assessments 7th Grade Topic 4 Standards Resource with Sample Formative Assessments enVision 6th Grade Topic 3 Standards Crosswalk Resource enVision 7th Grade Topic 4 Standards Crosswalk Resource FCPS P-12 Mathematics Guidance Document SEL Standards	Kentucky Academic Standards KSA Blueprint Target of the Standards - conceptual, procedural & Three-Reads Routine - Notice and Wonder Routine iReady Integrating Language and Routines Support ***enVision 6th Grade Teacher Guide: page 116A to 116 Focus-Coherence-Rigor*** ***enVision 7th Grade Teacher Guide: page 190A to 19 Focus-Coherence-Rigor***

Big Ideas	**Opportunities for Vibrant Learning and Writing**
• Apply and extend previous understandings of arithmetic to algebraic expressions. • Use properties of operations to generate equivalent expressions. • Solve real-life and mathematical problems using numerical and algebraic expressions.	• enVision Topic 3 Performance Task A • enVision Topic 3 Pick-a-Project - Basketball Blitz • enVision Topic 3 Pick-a-Project - Pool Party

Essential Questions	**Common Preconceptions/Misconceptions**
• What are expressions, and how can they be evaluated? • How can properties of operations help to generate equivalent expressions used in solving problems? • When and how are equations applied to real-world situations? • What are some possible real-life situations to which there may be more than one solution?	• When using the distributive property, some stud term in the parentheses but forget to do the sam Using Algeblocks or Algebra Tiles for a 15-minut modeling the distributive property. **Essential skills to clarity:** • Variables can be used as unique unknown values or as • Exponential notation is a way to express repeated proc • Algebraic expressions may be used to represent and g problems, and real-life situations. • Properties of numbers can be used to simplify and eva • Algebraic properties can create equivalent expression

	• Students apply the properties of rational numbe expressions. Students must be precise when de helpful for students to use letters closely repres stand for when assigning variable names. • Students must be sure of the order of operation with several steps in an expression, sometimes of operations such as in the example: 7+2(3x - 5) to add the 7 + 2 first or only multiply the 2 by the review of the order of operations can help.
Standards for Mathematical Practices	**Kentucky Interdisciplinary Literacy Practices (KI**
MP.1. Make sense of problems and persevere in solving them. **MP.2. Reason abstractly and quantitatively.** **MP.3. Construct viable arguments and critique the reasoning of others.** **MP.4. Model with mathematics.** MP.5. Use appropriate tools strategically. MP.6. Attend to precision. **MP.7. Look for and make use of structure.** **MP.8. Look for and express regularity in repeated reasoning.** ***enVision 6th Grade Teacher Guide: page 116E for specific Topic 3 Math Practice suggestions*** ***enVision 7th Grade Teacher Guide: page 190E for specific Topic 4 Math Practice suggestions***	1. Recognize that text is anything that communicate 2. Employ, develop, and refine schema to understar 3. View literacy experiences as transactional, interc transformational. 4. Utilize receptive and expressive language arts to others, and the world. **5. Apply strategic practices, with scaffolding and approach new literacy tasks.** **6. Collaborate with others to create new meaning** **7. Utilize digital resources to learn and share with** **8. Engage in specialized, discipline-specific litera** **9. Apply high level cognitive processes to think d text.** 10. Develop a literacy identity that promotes lifelong *Incorporating texts into math instruction fosters inter more engaging educational experience.*

Attending to the Standards for Mathematical Practice

6th Grade:
Students connect symbols to their numerical referents. They understand exponential notation as repeated multip number. Students realize 3^2 is represented as 3 × 3, with a product of 9 and explain how 3^2 differs from 3 × 2, whe Students determine the meaning of a variable within a real-life context (MP.2). Students look for structure in expre them into a sequence of operations. They make use of structure to interpret an expression's meaning in terms of by the variables. In addition, students make use of structure by creating equivalent expressions using properties. write $6x$ as $x + x + x + x + x + x$, $4x + 2x$, $3(2x)$, or other equivalent expressions (MP.7). Students look for regularity i and express it with a general formula (MP.8). Students work with variable expressions while focusing more on the the actual numbers that the variable represents. For example, students move from an expression such as 3 + 3 + form $m + m + m + m = 4 \cdot m$, or $4m$. Similarly, students move from expressions such as $5 \cdot 5 \cdot 5 \cdot 5 = 5^4$ to the genera These are especially important when moving from the general form back to a specific value for the variable (MP.6

7th Grade:
Students who fluently use the strategies of the properties of rational numbers to reason through the standard orc applying these properties in a structured way. Students recognize the repeated use of the distributive property as

expressions (MP.7). When given an example problem involving multiple operations containing a mistake, students "Where did the mistake occur and how do I know?" (MP.3). Students bring mathematical context to real-life situat multiple representations of quantities may exist. For example, adding 5% to quantity a leads to an expression of a clarifies the problem. Students access previous knowledge of working with percents to use the same structure to expressions exist, even when taken out of the context of the real-world situation (MP.7). Students extend this reas situations (MP.8).

Essential Standards	**Sample Learning Intentions & Success Criteria**	**HQIR/Reso** ❗Indicates Kentucky Ac 🔷Indicates planning and
Cluster: Apply and extend previous understandings of arithmetic to algebraic expressions.		
KY.6.EE.2 Write, read, and evaluate expressions in which letters stand for numbers. ☐ **Conceptual** ☐ **Procedural** ❑ Application a. Write expressions that record operations with numbers and with letters standing for numbers. ☐ **Conceptual** ☐ **Procedural** ❑ Application Clarifications: Express the calculation "y less than 5" as 5 – y. b. Identify parts of an expression using mathematical terms (sums, term, product, factor, quotient, coefficient); view one or more parts of an expression in a single entity. ☐ **Conceptual** ☐ **Procedural** ❑ Application Clarifications: Describe the expression 2(8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms. c. Evaluate expressions for specific values of their variables, including values that are non-negative rational numbers. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).	We are learning to write and read algebraic expressions. • I can use variables and operations to write an algebraic expression to represent a given situation. • I can identify and read the parts of an expression, including sum, difference, term, product, factor, coefficient, or quotient. • I can identify terms with grouping symbols as a single term and more than one term. We are learning to evaluate algebraic expressions. • I can evaluate an algebraic expression by substituting the variable with a number. • I can evaluate an algebraic expression with non-negative rational numbers. • I can apply the order of operations when evaluating	• Sample f FA_6M • 6th Grad • 6th Grad • 6th Grad (Lesson 3 and Expr • 6th Grad • 6th Grad (Lesson 3 Expressi • 6th Grad • 6th Grad (Lesson 3 Trains" • 6th Grad Field Trip • 6th Grad Support • Formativ (FAL): La

❑Conceptual ❑**Procedural** ❑ Application Clarifications: Use the formulas $V = s^3$ and $SA = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$ meter. Coherence KY.5.OA.2→KY.6.EE.2 **MP.1, MP.3, MP.4, KILP.1, KILP.2, KILP.9** *Supporting Standard: KY.6.EE.1 & KY.6.EE.4*	algebraic expressions, including whole number exponents. • I can evaluate expressions from formulas used in real-world problems.	
KY.6.EE.3 Apply the properties of operations to generate equivalent expressions. ❑**Conceptual** ❑**Procedural** ❑ Application Clarifications: Using Associative, Commutative and Distributive properties to generate equivalent expressions. Coherence KY.5.OA.2→KY.6.EE.3→KY.7.EE.1 **MP.7, MP.8, KILP.6, KILP.7** *Supporting Standards: KY.6.NS.4 & KY.6.EE.4* **KY.7.EE.1** Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. ❑Conceptual ❑Procedural ❑ Application Clarifications: Students demonstrate understanding of applying the order of operations to an expression involving multiple operations, including using the distributive property and variables in the expression. Students apply the properties of commutative, associative and distributive fluently. CoherenceKY.6.EE.3 → KY.7.EE.1 → KY.8.EE.7 **MP.2, MP.3, KILP.6, KILP.8**	We are learning to generate equivalent expressions using the properties of operations.. • I can use the associative property to write equivalent expressions**.** • I can use the commutative property to write equivalent expressions. • I can use the distributive property to write equivalent expressions. • I can combine like terms to write equivalent expressions. We are learning to generate equivalent expressions. • I can use the Distributive Property and area models to expand expressions**.** • I can use the Distributive Property and area models to factor expressions. • I can use the Commutative and Associative properties to add expressions. • I can apply my understanding of adding and subtracting rational numbers to the constants and coefficients when combining like terms. • I can combine like terms and apply the properties of	• Sample f FA_6M • 6th Grad • 6th Grad Equali-til 2 from le • 6th Grad (Lesson 3 Expressi • 7th Grad Expanda • 7th Grad • 7th Grad (Lesson 4 Expressi • 6th Grad • Brainingc "Algebra • 7th Grad • 7th Grad • 7th Grad • Brainingc "Adding t • 6th Grad • Topic 3: I

Supporting Standard: KY.7.NS.3	operations to subtract expressions.	Numbers 4 from le • 6th Grad (Lesson 3 • 6th Grad (Lesson 3 • 7th Grad • 7th Grad (Lesson 4 • 7th Grad Got You • enVision Support • enVision Support
KY.7.EE.2 Understand that rewriting an expression in different forms in a problem context can clarify the problem and how the quantities in it are related. ☐ Conceptual ❑ Procedural ❑ Application Clarifications: Students apply mathematical properties in order to rewrite expressions and clarify the relationship of quantities in a problem. For Example: If Tom and Jim both get paid a wage of $11 per hour, but Tom was paid an additional $55 for overtime, the expression $11(T + J) + 55$ may be more clearly interpreted as $11T + 55 + 11J$ for purposes of understanding Tom's pay separated from Jim's pay. Coherence KY.6.EE.4 → KY.7.EE.2 → KY.8.EE.8c **MP.7, MP.8, KILP.1, KILP.4, KILP.9** *Supporting Standard: KY.7.NS.3*	We are learning how rewriting expressions of a real-world scenario clarify the problem and understand how the quantities are related. • I can write an expression to represent a real-world situation. • I can write equivalent expressions by combining like terms, using the Distributive Property, and applying properties of operations. • I can use equivalent expressions to determine relationships between quantities and interpret information in real-world problems. • I can tell how the rewritten expressions helps clarify the context of the problem.	• Possible FA_7M • 7th Grad • enVision Handboo

Supporting Standards

KY.6.EE.1 Write and evaluate numerical expressions involving whole-number exponents. **MP.2, MP.6**
Interpret an exponent of size n as a repetitive multiplication expression of the base multiplied by itself n times; us

operations using exponents to evaluate numerical expressions. **Coherence KY.5.NBT.2→KY.6.EE.1→KY.8.EE.1**

☒ **Conceptual** ☒ **Procedural** ❑ Application

KY.6.EE.4 Identify when two expressions are equivalent when the two expressions name the same number regar substituted into them. **MP.2, MP.3, MP.7**

☒ **Conceptual** ❑ Procedural ❑ Application

KY.6.NS.4 Use the distributive property to express a sum of two whole numbers 1 – 100 with a common factor as whole numbers with no common factor. **MP.8, Coherence KY.4.OA.4→KY.6.NS.4**

❑ Conceptual ☒ **Procedural** ❑ Application

KY.7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers. **MP.1** Emphasis is on **applying** mathematical operations to rational numbers that occur in real real-world context.

❑ Conceptual ☒ Procedural ☒ Application

Vocabulary

algebraic expression - A type of math expression that has at least one variable and at least one operation.
base - The number in a power that is repeatedly multiplied.
coefficient - A constant that multiplies a variable.
composite number - A number that has more than two factors.
equivalent expressions - Have the same value.
evaluate - To find the value.
exponent - Tells how many times the base is used as a factor.
expression - a finite combination of symbols well-formed according to the rules applicable in the context at the e
formula - A rule that uses symbols to relate two or more quantities.
greatest common factor (GCF) - The greatest number that is a factor of two or more numbers.
least common multiple (LCM) - The least multiple, not including 0, common to both numbers.
like terms - Terms that have the same variable part or constants.
numerical expression - A mathematical phrase that includes numbers and at least one operation.
power - A number that can be written using exponents.
simplify - Use properties of operations to write equivalent expressions that have no like terms and no parenthes
substitution - To evaluate an algebraic expression, replace the variable with a number.
term - Each part of an expression that is separa
constant - A value that does not change.
distributive property of multiplication over addition - a(b + c) = a * b + a * c
like terms - Terms whose variables (such as x or y) with any exponents (such as the 2 in the x^2) are the same or c
term - A single number or a variable, or numbers and variables multiplied together. A term is typically separated
unlike terms - When the variables and/or their exponents are different (2x, $2x^2$, 2y, 2xy are all unlike terms).
variable - A letter used to represent a number value in an expression or an equation. EX: "x" in x+2=4.

*Disclaimer: Success Criteria is the evidence students must produce to demonstrate learning. This example is not comprehensive.

** Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit, depending on the explored tasks. It is important to note that MP. 2 should support learning in every lesson.

******* Modeling Standards: Modeling is best interpreted not as a collection of isolated topics but rather in relation to other standards. Making mathematical models is a Standard for Mathematical Practice, and specific modeling standards appear throughout the high school standards indicated by a star symbol (★). The star symbol sometimes appears on the heading for a group of standards; in that case, it should be understood to apply to *all* standards in that group.

Visual Vocabulary

algebraic expression - A type of math expression that has at least one variable and at least one operation.
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equivalent expressions - Have the same value.
evaluate - To find the value.
exponent - Tells how many times the base is used as a factor.
expression - a finite combination of symbols well-formed according to the rules applicable in the context at the end.
formula - A rule that uses symbols to relate two or more quantities.
greatest common factor (GCF) - The greatest number that is a factor of two or more numbers.
least common multiple (LCM) - The least multiple, not including 0, common to both numbers.
like terms - Terms that have the same variable part or constants.
numerical expression - A mathematical phrase that includes numbers and at least one operation.
power - A number that can be written using exponents.
simplify - Use properties of operations to write equivalent expressions that have no like terms and no parentheses.
substitution - To evaluate an algebraic expression, replace the variable with a number.
term - Each part of an expression that is separated by a plus sign or a minus sign.
variable - a letter used to represent a number value in an expression or an equation. EX: "x" in x+2=4