CONNEAUT AREA SCHOOL DISTRICT MATHEMATICS—Module 3		
UNIT OF STUDY: Expressions and Equations	**COURSE/GRADE:** Grade 7	**# WEEKS:** 30 days

Focus (emphasis) Standards/EC **CC.2.2.7.B.3** Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations… **M07.B-E.2.1.1** Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate. Example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50 an hour (or $1.1 \times \$25 = \$27.50$). **M07.B-E.2.2.1** Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Example: The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width? **M07.B-E.2.2.2** Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers, and graph the solution set of the inequality. Example: A salesperson is paid $50 per week plus $3 per sale. This week she wants her pay to be at least $100. Write an inequality for the number of sales the salesperson needs to make and describe the solutions. **M07.B-E.2.3.1** Determine the reasonableness of answer(s) or interpret the solution(s) in the context of the problem. Example: If you want to place a towel bar that is 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.	**Technology/manipulatives** Calculators, Smartboard, Study Island, rulers, white boards, highlighters, colored pencils, algebra tiles
Important (reinforced) Standards/EC **CC.2.2.7.B.1** Apply properties of operations to generate equivalent expressions…	**Reading, writing, speaking strategies** Journaling, read aloud, persuasive/informational/expository writing,

M07.B-E.1.1.1 Apply properties of operations to add, subtract, factor, and expand linear expressions with rational coefficients. Example 1: The expression 1/2 • (x + 6) is equivalent to 1/2 • x + 3. Example 2: The expression 5.3 – y + 4.2 is equivalent to 9.5 – y (or – y + 9.5). Example 3: The expression 4w – 10 is equivalent to 2(2w – 5).	graphic organizers, Frayer model, lecture, cooperative learning, board work, demonstration, Think-Pair-Share, note-taking, crossword puzzles
Vocabulary algebraic expression, arithmetic sequence, associative property, coefficient, commutative property, constant, counterexample, define a variable, distributive property, equivalent expressions, factor, factored form, like terms, linear expression, monomial, multiplicative identity property, additive identity property, multiplicative property of zero, property, sequence, simplest form, term, variable, addition property of inequality, addition property of equality, coefficient, division property of equality division property of inequality, equation, equivalent equation, inequality, multiplication property of equality, multiplication property of inequality, solution, subtraction property of equality, subtraction property of inequality, two-step equation, two-step inequality.	**Questioning and discussion techniques** Bellringers, Exit tickets, discovery, small/large groups, peer tutoring, games, homework review, dry erase boards
Real life application Not limited to: formulas, work problems, cost for services rendered, geometry problems	**Performance assessment** Test, Quiz, Performance Task, Homework, Projects, Notebooks, Study Island
Computation Operations involving real numbers	**Accommodations/adaptations** Differentiation strategies, small group instruction, cooperative learning, guided practice, peer tutoring, limited problems/choices, manipulatives and models, clarity checks, diagrams and graphs

SAS Module Resources www.pdesas.org: *Grade 7 Mathematics Assessment Anchors and Eligible Content *Mathematics Glossary *PA Core Mathematics, Grades PreK-12 *PA Standards Instructional Frameworks: Math (Go to Teacher Tools then Curriculum Mapping) *Math Cluster Matrix – Tri-folds 6-7-8	