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Curriculum Units by Fellows of the National Initiative
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Strong Foundations = Success In Equations

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This curriculum unit, Strong Foundations = Success in Equations, is intended for 8th grade Algebra students. However, it can be modified for Pre-Algebra and Math Intervention classes as well. The unit begins by focusing on expressions. It introduces numerical expressions and then transitions to variable expressions. Using real life examples, the unit's intention is that students see expressions as mathematical recipes for calculations. Once students understand the structure of expressions it leads them into simplifying expressions using the Arithmetic Rules. The rules are taught with visual models, numbers, and variables. Students who conceptually understand expressions and the Arithmetic rules used to simplify them will be able to use those skills to solve multi-step equations. The unit also addresses the difficulty students encounter when given expressions and equations in word problem format. Students will learn to break down word problems and identify important pieces of information. The focus on conceptual understanding should reach students at all levels and help prepare them for higher-level mathematics.

(Developed for Pre-Algebra, grade 7; recommended for Middle School Algebra, grade 8, and could be modified for Pre-Algebra or Math Intervention, grades 7-8)

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