Show Me the Math

Using algebra tiles allows students to build concrete models of algebraic problems and to manipulate them to solve algebraic problems.

<table>
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<th>Curriculum/State Standards</th>
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| **6th Grade:** Adding, subtracting, multiplying, and dividing integers, solving expressions, solving one step equations, and applying the distributive property.  
| **7th Grade:** Adding, subtracting, multiplying, and dividing integers, solving expressions, solving two step equations, and applying the distributive property.  
| **8th Grade:** Applying the distributive property, adding linear expressions, solving linear equations, evaluating quadratic expressions, and multiplying binomials.  
| **Overview**  
| Students will use algebra tiles to represent and solve math concepts. Students will practice mathematical skills and concepts using Versatiles, a self checking program. As a culminating activity students will be teamed up in grade level groups, taking part in a competition where they race from classroom from classroom solving math problems using Versatiles and algebra tiles.  
| **Objectives**  
| The student will create concrete models of algebraic concept using algebra tiles.  
| The student will solve algebraic problems by manipulating algebra tiles.  
| The student will receive instant feedback while solving problems using Versatiles. The student will problem solve while working in cooperative groups.  
| **Materials**  
| Versatile starters sets for 6th, 7th, and 8th grade  
| 2 classroom sets of algebra tiles certificates  
| **Readiness Activity**  
| Students will be given time to explore algebra tiles by manipulating them and by being introduced to the name of each piece. Students will be introduced to Versatiles, and showed how they work.  
| **Strategies/Activities**  
| 1. Pre-test on standards being targeted  
| 2. Students are introduced to algebra tiles and Versatiles.  
| 3. Students use algebra tiles to build concrete representations of algebraic concepts. They are able to solve the problems by manipulating the algebra tiles.  
| 4. Students use Versatiles to practice skills and concepts they have learned and receive instant feedback because it is a self checking program.  
| 5. In May students compete in the “Show Me the Math Race.” There will be six teams per grade level consisting of 5 students per team. All teams will meet in a large open area where they will be given a math problem to solve (clue). The answer will tell them what room to go to. Once they run to that room, they will solve math problems using Versatiles or algebra tiles, if they complete the activity correct they are given another math problem (clue) to solve that will lead them to the next classroom number. The first team to complete six activities per grade level will win the “Show Me the Math Race.”  
| **Culminating Activity**  
| “Show Me the Math.”

This winning project idea submitted by:

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6-8  
GRADE LEVEL  
ARTS  
LANGUAGE  
MATH  
MISC  
SCIENCE  
HISTORY  
SOCIAL STUDIES  
1  
YEAR  
$540  
TOTAL BUDGET
....continued....

**Evaluation Method**
Students will complete a pre-test before the activities and then a post-test after all the activities.