

## General Education Math Lesson Plan

### Measurement: Finding the area of a triangle

**Source:** Bennett, J.M., Burger, E. B., Chard, D. J., Hall, E., Kennedy, P. A...Waits, B. W. (2011). *Mathematics*. Austin, TX: Holt McDougal

**Standard:** 6.ME.2a3 Apply the formula to find area of triangles

7-8.NO.3c1 Use the rules for mathematical operations to verify the results when more than one operation is required to solve a problem

**Learning Outcome:** Students will find the area of triangles and the missing measurements when given the area of a triangle.

**Materials:** rulers, variety of triangles, calculator, pencil, paper, word problems

#### Activities:

- Focus and Review: Have students review the formula for area and review order of operations
- Lecture: Teacher works through a variety of problems when the measurements are provided and problems where the area is given, but the base or height measurement is missing.
- Guided Practice: Students work in pairs to complete 10 problems from their math textbooks
- Independent Practice: Students work 5 word problems using real-world application. Students are expected to pull essential facts from the story to fill in equation for area.

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#### Activity: Create a universally designed version of the above lesson

UDL Planning	My ideas
Representation- adaptations in materials (e.g., adapt for sensory impairments)	Always provide height and base measurements; highlight measurements on shape; use triangle manipulatives and have students measure to find the length of the base and height; provide equation templates for students to fill in; highlight essential facts in word problems; color code essential facts to indicate where they go in the equation template
Expression- how will student show learning (e.g., use of assistive technology; alternative project)	Students use a calculator to solve for area and then match the area with the shape, repeat with bigger and smaller triangles
Engagement- how will student participate in the activity	Student can work in a pair during independent practice; student can use technology (e.g., iPad) to graph shapes in the coordinate plane; use a talking calculator; alter word problems to make personally relevant (e.g., add student's name, change the context to be something familiar)