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7-20-2006

### Calculating Shapes

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*The College at Brockport*

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Ezell, Stephen, "Calculating Shapes" (2006). *Lesson Plans*. 206.

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# Generic Lesson Plan Template

You should submit this form in addition to any computer generated files/documents/models to your group folder on Angel. Please create a .zip file and upload the group of files as a single archive.

Name: Stephen Ezell
Grade level(s)/Subject taught: Math Grade 7
Objectives: Upon completion of this lesson, students will: <ul style="list-style-type: none"><li>• be able to calculate the area and perimeter of a random rectangular shape on a grid.</li></ul>

Please provide a rich **one-page, single-spaced**, description or a *vision* of your best thinking on a way or ways you might teach the planned lesson. (approximately  $\frac{1}{2}$  page for the teacher role,  $\frac{1}{2}$  page for the student role). Also, construct a tentative rubric that you might use with your students (see example)

Items to include in your lesson plan: (Choose your discipline/concepts from your own area).

1. *Write the Mathematical Concept or "key idea" that modeling will be used to teach:* (e.g. Students use mathematical modeling/ multiple representation to provide a means of presenting, interpreting, communicating, and connecting mathematical information and relationships)

This activity can be used to:

- illustrate notions of perimeter and area
- develop students visualization skills
- practice students skills at calculating area and perimeter
- understand the concept of unit measure

and/or...

Materials: Students will need their notebooks a pencil and a worksheet of grids. Teacher will use the overhead for notes and some examples. The computer will be used as guided practice using shape explorer,

## THE LESSON

The class will start out with the students taking notes on perimeter and area as well as what a unit measure is. Some concrete examples of where perimeter and area are used will be given. The students will then be given the task to come up with other uses of area and perimeter. This will take up about the first 10 to 15 minutes. The worksheet of grids will be passed out and shape employer will be brought up on the screen. The students will be asked to copy the shape onto their paper and find the perimeter and area. We will only do one at a time here to ensure everyone is on the same page. For the first few this will be teacher guided with students responding with the answers. This should take about 15 minutes. Now the teacher will have let the students know that the next batch of problems will be collected and checked for correctness. The student with the most correct will be given a prize. The remaining student will all be given class credit. The teacher will then go through a number of examples for students to complete. Students will let it be known that the completed work will be their pass out the door when the class is over. At the end of class students will be given the task to draw a shape where the perimeter is greater than the area and a shape where the area is greater than the perimeter. They will be instructed to state the perimeter and area of each and to give a brief explanation in their own words of what area and perimeter is.