**Lesson Plan Outline Geometry in Construction**

**Title:**

Area of Parallelograms, Triangles, Trapezoids, Polygons, and Circles

**Objective(s):**

The students will find the area of parallelograms, triangles, trapezoids, and circles in problem solving situations.

The students will define an apothem and will find the area of polygons

**Learning Standard(s):**

[CCSS.MATH.CONTENT.HSG.GMD.A.1](http://www.corestandards.org/Math/Content/HSG/GMD/A/1/)Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. *Use dissection arguments, Cavalieri's principle, and informal limit arguments*.

[CCSS.MATH.CONTENT.HSG.MG.A.1](http://www.corestandards.org/Math/Content/HSG/MG/A/1/)Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).

**Activities:**

Students will be given an outline of a house and a lawn and will need to determine price for treatment of grass and price to dig for foundation of house.

Minefield Teambuilding Activity

 *Students will guide each other through “minefield” to work on communication skills*

Students will be given pictures of various windows and will calculate the area of each window on the wall

**Materials:**

Lawn Outline Activity

Bandana & Objects to place on ground for minefield activity

Window Area W.S.