**Lesson Plan Outline Geometry in Construction**

**Title:**

Solving Right Triangles Using Trigonometry

**Objective(s):**

The students will use trigonometry to find missing side lengths of a right triangle

**Learning Standard(s):**

[CCSS.MATH.CONTENT.HSG.SRT.C.8](http://www.corestandards.org/Math/Content/HSG/SRT/C/8/)Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.

**Activities:**

The students will apply construction concepts to finding missing sides of right triangles in terms of roofs, stairs, ramps, etc.

The students will use an inclinometer to find the heights of objects throughout the building

**Materials:**

Roof truss, staircases, and ramp into and out of house

Tape measures, inclinometers

Inclinometer Activity