**Lesson Plan Outline Geometry in Construction**

**Title:**

Problem Solving Using Trigonometry

**Objective(s):**

Students will use trigonometry & inverse trigonometry to find missing sides and angles in various problem solving situations

**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:**

Crossing the River; students will use trigonometry to determine the length across a river.

Students will perform a trigonometry exploration of different construction builds, architecture, and finding distance

Trigonometry Assesment

**Materials:**

Big blue tarp, cones, string, tape measure, protractor, inclinometer

Trigonometry Exploration