**Lesson Plan Outline Geometry in Construction**

**Title:**

Using theorems to prove that two triangles are congruent

**Objective(s):**

Students will prove that triangles are congruent using postulate and theorems

**Learning Standard(s):**

[CCSS.MATH.CONTENT.HSG.CO.B.6](http://www.corestandards.org/Math/Content/HSG/CO/B/6/)

Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.

[CCSS.MATH.CONTENT.HSG.CO.B.8](http://www.corestandards.org/Math/Content/HSG/CO/B/8/)

Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

**Activities:**

Students will use properties to determine if two triangles are congruent based on images and parts of a given triangle

Students will use limited measurements of various building designs to determine if the triangles within the build are congruent or not.

Congruent Triangles Assessment

**Materials:**

Roof Truss

Congruent Triangles Assessment