**Lesson Plan Outline Geometry in Construction**

**Title:**

Classifying Triangles

Properties of Isosceles and Equilateral Triangles

Applications of Isosceles and Equilateral Triangles

**Objective(s):**

Students will explore the angle sum theorem and exterior angle theorem of triangles.

**Learning Standard(s):**

[CCSS.MATH.CONTENT.HSG.CO.C.10](http://www.corestandards.org/Math/Content/HSG/CO/C/10/)

Prove theorems about triangles. *Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point*.

**Activities:**

Triangle Puzzle

Students will apply knowledge of isosceles and equilateral triangles to making a cutting stand and roofing

**Materials:**

Boards for Cutting Stand

Triangle Puzzle