**Lesson Plan Outline Geometry in Construction**

**Title:**

Parallel Lines & a Transversal Proofs

**Objective(s):**

Students will prove angle relationships and if two lines are parallel using their converse

**Learning Standard(s):**

[CCSS.MATH.CONTENT.HSG.CO.C.9](http://www.corestandards.org/Math/Content/HSG/CO/C/9/)Prove theorems about lines and angles. *Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints*.

**Activities:**

Students will determine if wall studs are parallel or not using angle relationships; students will write a proof and will roof designs to check for parallel lines.

**Materials:**

House walls

Proof Writing W.S.