Small Pig Brothers Construction Company vs. B.B. Wolf Demolition Inc. Use your engineering skills to build sturdy houses, then conduct experiments to test their strengths.

**MATERIALS**

**Pig 1:**
- straw
- tape
- scissors

**Pig 2:**
- twigs
- wood glue

**Pig 3:**
- modeling clay
- sculpting tools

**Wolf:**
- hair dryer

**CHALLENGE**

**Design as pigs:**
- Construct three houses using the materials listed.
- Label each house accordingly.
- Design a “For Sale” sign that tells prospective buyers about the attributes of each house.

**Test as wolves:**
- Design and carry out tests to knock down the homes using wind power. Which houses remain standing? Why?
- Could you design other methods of demolition? How about a wrecking ball?
- Prepare a fact sheet to give advice to prospective house wreckers.

**Re-Design**
- Take some time to think about the buildings that best withstood the wolf’s demolition tactics. How would you build the homes now, using the same materials, if you were to build again?
- How would you adjust your methods of demolition to counter the newly built homes?
- Re-design, re-build, and re-test!
- What did you learn?

**WHAT’S GOING ON?**

The engineering design process is a series of steps that guides engineers to help them solve problems. The design process is iterative, meaning that the steps are repeated as many times as needed, making improvements along the way to learn from failure and uncover new design possibilities to arrive at great solutions.

Show us how you’re being curious! Share your results with us.