MESA Solar Still Warm-up Activity

Goal: Use the materials you have been given to construct two scale model solar stills that vary in one fundamental way from the standard design. You will need to explain how this design factor (or parameter) affects your still’s expected performance. These are not working models so some aspects of a real still might not be present (such as tubing and 100% seal).

Directions:
- Read the MESA competition guidelines for the solar still. We will follow similar guidelines for this project, which is a non-working (dry) scaled mock-up
- Discuss various factors that you think will affect still productivity.
- Select one factor that you want to illustrate.
- Build a standard 8x10” model following the verbal directions and pattern given below.
- Carefully layout your second design, cut out and tape together.
- Fill out the Still design Project Summary form.

If time allows, we will have a peer evaluation of your designs and predictions based on the following criteria:
- Neatness
- Creativity
- General explanation of effect
- Prediction of how changing this factor will change still productivity

Materials:
- Design #1: 10 x 13” cardboard
- Design #2: 15 x 20” cardboard
- Transparency sheets
- Meter/yard stick
- Pencils, Scissors, Glue sticks
- Box tape, Masking tape, Duct tape
- Cutting blade, cutting board
- black and white paper, Al foil, about 11 x 17” each
- Still design forms: Project summary, Judging, Instructions