

HOW TO TEACH: "Make a \$5 Solar Cooker" © Sharon Clausson

Materials and tools I bring to make 40 Solar Cookers.

80 sheets 22"x28" poster board.

160 precut 14" x 14" sheets of precut aluminum foil.

20 bottles of school glue.

160 binder clips $\frac{3}{4}$ "

12 yardsticks

12 pairs of safe scissors

40 pieces of 2" x 3" cardstock

40 pencils

10 erasers

Container of wipes for glued fingers.

Setup for each person:

2 pieces of poster board - 4 binder clips – 1 pencil – 1 small piece cardstock

Shared items:

Erasers – yardsticks – scissors – glue

Do steps 1, 2, 3, 4, and 5 then give 4 sheets of foil per person and do steps 7 and 8

$\frac{3}{4}$ " = 1.905cm

2" = 5.08cm

3" = 7.62cm

8" = 20.30cm

14" = 35.56cm

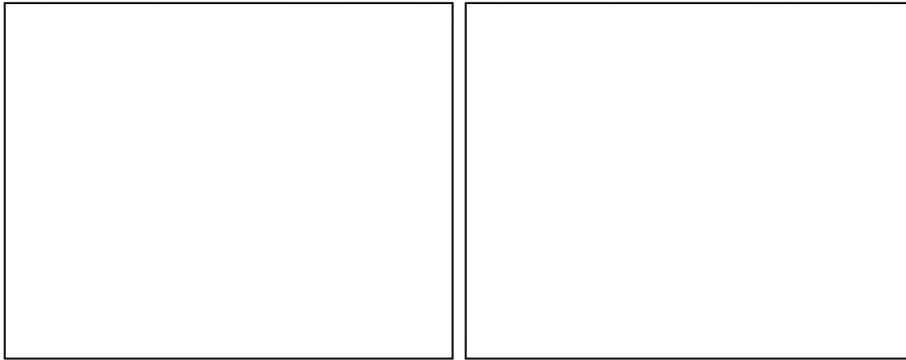
22" = 55.88cm

28" = 71.12cm

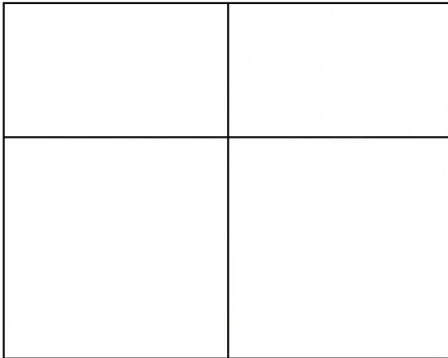
Steps to make the \$5 Solar Cooker

Make a poster paper Solar Cooker © Sharon Clausson

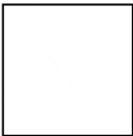
1. Use 2 Poster board sheets 22" x 28" Put one on top of the other and clip together



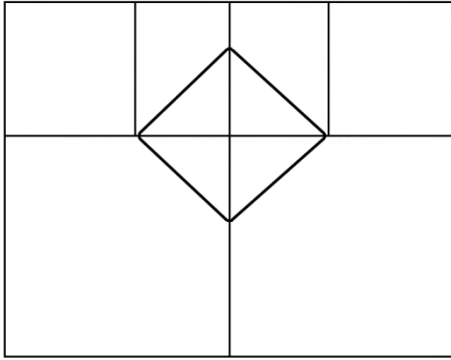
2. Draw line at 14" on 28" side and 14" on 22" side



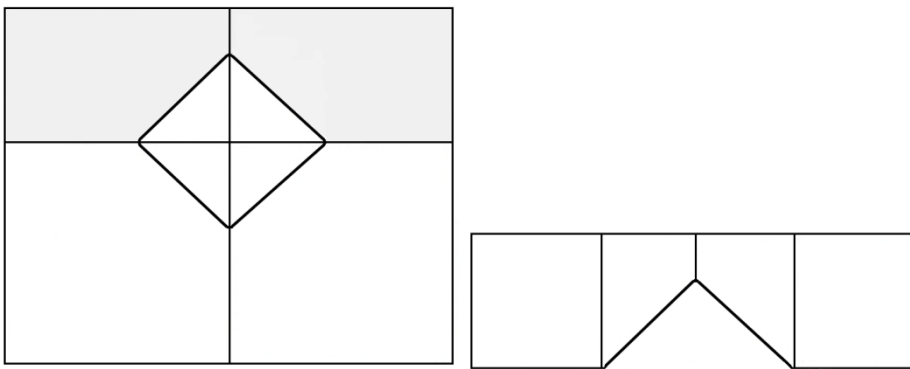
3. On separate sheet draw 8" square. Cut out and use for 8" template.



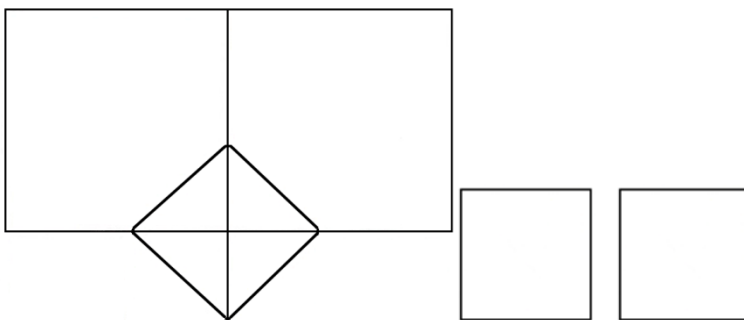
4. Line up corners of 8" square on lines drawn on poster board. Draw outline of square. Draw 8" square in corners on short side.



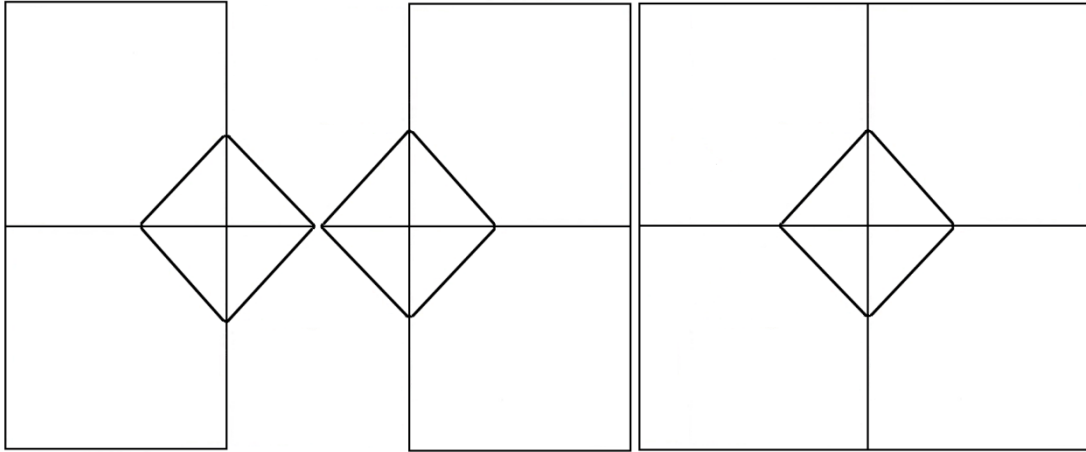
5. Cut smaller shaded section off, leaving 8" center square on larger panel. On the 28" (long) side start to cut at the 14" center line up to the point of the 8" center square. The cut should be 8" deep on long side.



6. Cut four 8" squares from the ends of the cutoff pieces. Glue two 8" squares together for bottom piece and two 8" squares for the piece used inside the cooker.
7. Glue foil on 1 side of both large panels (don't glue to 8" center square) and glue foil to one side of one 8" square. Use business or credit card to spread glue.



8. Put both large panels together lining up 8" center squares then glue center squares together. Sit foiled 8" square (shinny side up) on top of foiled panels, glue to center square of panels and then glue non-foiled 8" square underneath panels. You will have the 8" foiled square on top, the center squares of the panels in the middle and the 8" non-foiled square underneath. Let dry.



9. To make cone shape pull up panels and clip together evenly. You need to adjust cone shape until maximum sunshine is focused on center 8" square. For low sun put one panel at 90 degrees and the opposite flat on the table, then clip side panels to form a smooth curved shape. For high sun clip into more of a cone shape until best focus on 8" center square is found.
10. Put food in dark pan with glass cover and keep sun focused on center.
11. Materials list for one \$5 Solar Cooker: Two pieces of poster board 22" x 28" (55.8cm x 71.1cm)
Aluminum foil to cover panels and one 8" square
Four $\frac{3}{4}$ " bulldog paper clips
One bottle of school glue

