## Unit: Cooking with the Sun and Sun Ovens

**Lesson #9: Let’s Build a Sun Oven**

### The Copenhagen Solar Oven

This solar oven was developed and named by Sharon Claussen. She sells an inexpensive Copenhagen oven on line at this address [http://www.sclaustoys.com/](http://www.sclaustoys.com/). This video can be used as backup instruction to help you build this oven: [http://youtu.be/Ew3RbeuntMg “How to Build a Copenhagen Solar Oven”](http://youtu.be/Ew3RbeuntMg)

### Materials:

- Two sheets of poster board
- 18-inch aluminum foil
- White glue
- An 8x8 piece of sturdy cardboard
- A hammer and one large nail
- A shoelace or sturdy piece of string
- Four binder clips
- A cooking trivet for air circulation
- A light-weight black cooking pot with lid
- An oven cooking bag, used for baking poultry. Can be found at any grocery store.

### Instructions:

Measure and cut the poster board into four 14 x14” pieces. Measure and cut the sturdy cardboard in an 8x8” square.
Spread glue all over one side of each poster board. Use a plastic card to spread the glue evenly. Do the same with the 8x8 piece of cardboard.

Smooth foil onto each glued surface, using the plastic card to smooth it out. It is important for reflection panels to be as smooth as possible. Smooth reflection panels reflect the light into the cooking pot more efficiently.

Trim the foil along the edge of the poster board. If you have reflective duct tape, it might be a good idea to reinforce the edges to make the oven last longer.

Lay the panels foil side down as shown. With the cardboard square on top having each corner on a point where the poster board edges meet. Divide the cardboard into 4 quadrants as show and label 1,2,3,4. Label the numbers on the poster board squares to match.
Use the hammer and large nail to make holes through the cardboard square and poster board. Make the holes on each side of each corner, ½ inch from the edge and ½ inch down from the point of the cardboard square.

“Stitch” the pieces together by taking the shoelace down through the colored poster board and cardboard square, then up through the next hole. Take the shoelace down and up, down and up until you come up on the same numbered square that you first took the shoelace down through the hole. Tie the two ends together in a bow.

When finished, it should look like this on the other side.

Overlap the edges to form a bowl shape. Secure with binder clips. Place a trivet in the bottom of the cooker to allow air circulation. Place the food in the pot. Cover the pot with a heat safe oven bag. Seal the bag shut with a twist tie. Point the oven toward the sun and cook away. Have Fun.