BUILD A PIZZA BOX SOLAR OVEN

Instructions³

- **1.** Assemble the pizza box and open it up.
- 2. Glue aluminum foil to all inside surfaces of the sides except the top of the box, with the shiny surface facing in. This will create a "radiation trap" that will trap, by reflection, invisible (low frequency) radiation that is radiated by the food and air inside the box.
- **3.** On the top flap of the pizza box, draw a square with a marker with edges spaced 1" from the four sides of the box.
- 4. Cut along three of the lines (on the sides and on the front edge of the box) leaving the fourth line along the box's hinge uncut. Then fold open the flap, making a crease on the fourth line (see the figure above).
- **5.** Glue aluminum foil, shiny side up, to the inside surface of the top flap. This will form a reflector to reflect sunlight into the oven. Be careful to make as few wrinkles as possible and smooth out whatever wrinkles occur.
- 6. Tape the black construction paper to the bottom of the box. This will help to absorb the incoming sunlight.
- **7.** Carefully stretch the plastic wrap over the opening of the box. Seal the edges with tape to keep the air in.
- 8. Cover any air leaks around the box edges with tape. Make sure that the box can still be opened, so you can place food inside the box and remove it later.
- Go outside in the sunlight and place the oven on a flat, level surface. Place the thermometer inside of the oven and wait until it levels. Note the temperature.



3 https://ualr.edu/gifted/files/2016/03/lesson-7-modification-solar-oven-lesson-plan.pdf

