

Summer Science Activity: Solar Cooking

Make-Your-Own Solar Oven

Harness the mighty energy of the sun and try cooking outdoors with some simple recipes, such as: hot dogs, pretzels, pizza and s'mores.

Materials:

- Cardboard
 - Pizza box or shoe box
 - Aluminum foil
 - Plastic wrap
 - Black paper
 - Scotch® Magic™ Tape
 - Box cutter or Scotch™ Precision Cutter
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Procedure:

- Begin by brainstorming and sketching different designs for a solar cooking device. In addition to a flat cooking surface, you will want a 3-D device to reflect the rays of the sun onto the food item. The rest of the design and engineering is up to you!
- Make a small cooker out of a shoe box (will fit 2 hot dogs or 2 s'mores) or a large cooker out of a pizza box (to cook dinner for your whole family).
- Cut a 3-sided flap in the lid of the box and bend it open. Now cover the inside of the flap with smooth aluminum foil and fold and tape the edges on the top.
- For an oven design, you can tape a layer of plastic wrap to the sides of the cut-out portion of the box. This helps seal in the heat. For a stovetop design, leave it open.
- Experiment with the best surface to use for the base of the box. Aluminum foil? Black paper covered with plastic wrap?
- Experiment with the best angle for the lid, using sticks of different sizes to prop it up. Position the box to get the maximum energy from the sun.
- Watch, wait and enjoy! Try different designs and different recipes (just avoid anything with raw meat or eggs, as the oven may not get hot enough to cook them properly).

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