



ACTIVITY PAGE

PIZZA BOX SOLAR OVEN S'MORES

SUPPLIES:

Cardboard Pizza Box	Plastic Wrap
Aluminum Foil	Ruler (or wooden spoon or dowel)
Clear Tape	Thermometer
Black Construction Paper	S'more: Graham Cracker,
Box Knife or Scissors	Marshmallow, Piece of Chocolate
Newspapers	



INSTRUCTIONS:

- 1** Use a box knife or sharp scissors to cut a flap in the lid of the pizza box. Cut along three sides, leaving about an inch between the sides of the flap and the edges of the lid. Fold this flap out so that it stands up when the box lid is closed.
- 2** Cover the underside of the flap with aluminum foil by tightly wrapping foil around the flap and taping it to the back or outer side of the flap.
- 3** Use clear plastic wrap to create an airtight window for sunlight to enter the box. Open the box and tape a double layer of plastic wrap over the opening you made when you cut the flap in the lid. Leave about an inch of plastic overlap around the sides and tape each side down securely, sealing out air.
- 4** Line the bottom of the box with black construction paper – black absorbs heat. The black surface is where your food will be set to cook. How much you need will depend on the size of the pizza box you're using.
- 5** To insulate your oven so it holds in more heat, roll up sheets of newspaper and place them on the bottom of the box. Tape them down so that they form a border around the cooking area. It may be helpful to also tape the rolls closed first. The newspaper rolls should make it so that the lid can still close, but there is a seal inside of the box, so air cannot escape.
- 6** The best hours to set up your solar oven are when the sun is high overhead – from 11 a.m. to 3 p.m. Take it outside to a sunny spot and adjust the flap until the most sunlight possible is reflecting off the aluminum foil and onto the plastic-covered window. Use a ruler (wooden spoon or dowel) to prop the flap at the right angle.



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INSIDE THE BOX SHOULD LOOK LIKE THIS:



THIS IS WHAT IT LOOKS LIKE "CLOSED":



Your solar oven can reach about 200°F on a sunny day and will take longer to heat things than a conventional oven. Although this method will take longer, it is very easy to use, and it is safe to leave alone while the energy from the sun cooks your food.

COOKING S'MORES:

- 1** Set the oven in the direct sun, with the flap propped to reflect the light in the box. Preheat the oven for at least 30 minutes.
- 2** Break the graham cracker in half to make squares and place inside your solar oven with a jumbo marshmallow on top of each cracker. Don't add the chocolate yet, it will melt very quickly in the sun. Place your solar oven in direct sunlight with the flap open. Let it cook.
- 3** The marshmallows will take anywhere from 30 - 60 minutes to cook. Once the marshmallows are squishy, open the lid and place a piece of chocolate on top. Place another graham cracker on top of the chocolate and press down to squash the marshmallow. Enjoy!

