

Making a Simple Solar Oven

June 2017 **Classroom Activity**

Dad and Danny cook marshmallows on an open fire in the chapter book **Camping Out**. Another way to safely make toasted marshmallows is in a solar oven that you can make yourself with common household items. The project should take only about 15 minutes.

Materials You Will Need:

A box with hinged lid (A shoe box or pizza box will work well.)

Aluminum foil

A sheet of black construction paper

Plastic wrap

Tape or glue

A stick (straw, pencil or wooden skewer)

An aluminum pan or tray (You can make your own with foil.)

Marshmallows (chocolate and graham crackers are optional.)



1. Use tape and foil to line the entire inside of the box (shiny side facing out).
2. Attach a half sheet of black construction paper to the floor of the box.



3. Place the stick upright inside the top of the box lid to prop the lid open and secure it with a piece of tape. The bottom of the stick should rest outside the box.



4. Put several marshmallows on an aluminum tray and place it into the oven.

5. Lift the lid and cover the oven's top tightly with plastic wrap. Tape it, if needed.



6. Place the oven outside in a sunny area. Prop the lid open and position the oven so that the sun shines directly into the box.

7. Cooking time will depend on how much sunlight there is and the outside temperature. On a hot sunny day, it may take only 15 to 20 minutes for the marshmallows to cook. Check them often!



RESOURCES:

Scientific American Oven

<https://www.scientificamerican.com/article/sunny-science-build-a-pizza-box-solar-oven/>

Frying an egg on the sidewalk. Really?

<http://homeguides.sfgate.com/science-experiments-kids-solar-energy-frying-eggs-79647.html>