

FUN WITH THE

SUN



Courtesy of Caiden B, age 10

Genius Hour Project:
Solar Energy Uses

HOW TO MAKE A SOLAR OVEN



All you need are:

1. Hot sunny day, outdoors
2. 10 a.m. - 2 p.m. is best
3. No wind
4. Some basic materials
5. 60 - 90 minutes

Solar oven materials:

- Pizza box or cardboard box with lid
- Flat piece of cardboard the size of your cardboard box top
- Aluminum foil
- Bamboo skewer or straw
- Plastic wrap
- Black construction paper
- Tape
- Scissors
- Sunglasses for safety
- Glass or clear plastic plate
- Magnifying reading sheet (optional)

Choose a recipe:

S'mores: giant marshmallow halved, graham wafers, chocolate chips

Nachos: Nacho chips, shredded cheese, other toppings (optional)



SOLAR OVEN CONSTRUCTION and USE

(Younger children may need an adult to help.)

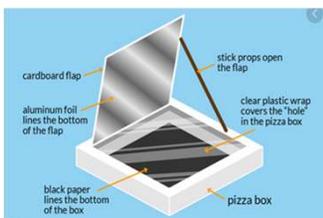
1. Cut the flat piece of cardboard to the size of your box top.
2. Cut a large window in the middle of the flat cardboard piece.
3. Line the bottom of the box with black paper and tape it in.
4. Line inside lid and sides of box with aluminum foil; secure with tape.
5. Tape black paper on the flat piece of cardboard around the window cutout
6. Plastic wrap both the top and underside of the flat cardboard.

If you have the optional magnifying reading sheet, secure it between the plastic wrap in the center of the window cut out.

Construction Continued:

7. Choose your recipe and put food in a clear container that will fit neatly within the size of the window. The container height should be less than the sides of the box.
8. Put the food dish in the center of the box.
9. With the lid up, place the flat cardboard 'window frame' piece over the top of the open box. The food should be visible.
10. Cover the top of the flat cardboard window frame with plastic wrap and tape the edges down. Cover the sides and tape any gaps. It should be sealed so heat is trapped in.
11. Find a location with direct sun.
12. Angle the foil lined lid so the sunlight hits it and it is directed through the window on to the food.
13. Tape the bamboo skewer or straw on the side so the angle is secured

DO NOT LOOK INTO SUN OR FOIL; WEAR SUNGLASSES.



RECIPES:

SMORES:

- Need large marshmallows, graham wafers, chocolate chips
- Put graham wafers on a clear plastic plastic or glass plate.
- Cut a large marshmallow in half. Put flat side facing up on a graham wafer.
- Put chocolate chips on top

NACHOS:

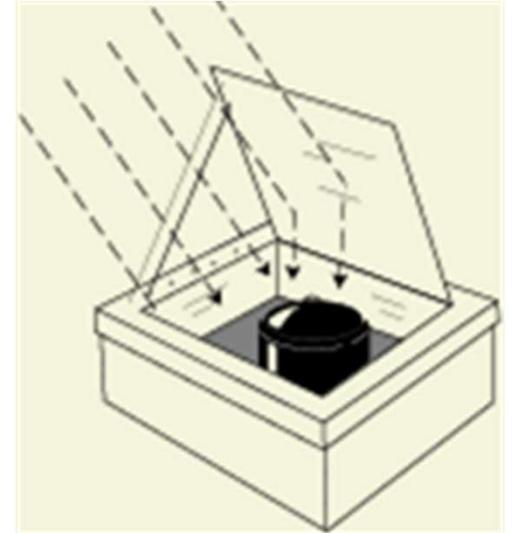
- Nacho chips, shredded cheese
- Put the nachos on a clear glass or plastic plate.
- Top with shredded cheese and other toppings as desired.

Cook til the chocolate chips or cheese are melted

ENJOY!



Solar cooking uses natural light energy to seal in and cook food.



It is successfully being used as an alternative cooking method in developing countries.



Have fun discovering other recipes!