

Pizza Box Solar Oven

You have probably noticed that, even on cold days, the inside of a car which has been parked in the sun is a lot warmer than it is on the outside of the car. This is because clear materials, such as glass and plastic can trap the heat from the sun, just like the greenhouse gases do in our atmosphere. We can use this principle to cook a variety of foods in solar ovens.

Materials

Medium Sized Pizza Box
Aluminium Foil
Masking Tape

Black Plastic or Cardboard
Clear OHP Plastic
Craft Knife

What to do

1. Using a craft knife, carefully cut a U shape on the lid of the Pizza box, by drawing a square 5 cm in from all of the edges. Cut along line at the front and sides of the box. (Fig. 1)
2. Cut a square of clear OHP plastic that is about 1cm in each direction larger than the flap you have just cut in the box. Tape the clear plastic on the inside of the box so that it is covering the flap you have just created. It must be air tight! (Fig 2)
3. Cut a square of black plastic about the same size as the bottom of the box and tape it to the bottom of the box (opposite the clear plastic). (Fig 3).
4. Tear a sheet of aluminium foil and fold it around the flap (the face that faces inside the closed box). (Fig 4)
5. Take the oven out into the sun and place the box with the window facing the sun.
6. Use the flap to reflect more sunlight into the window.
7. As Pizza Box solar ovens do not get very hot, try melting or heating up foods rather than cooking raw food. Chocolate covered marshmallow biscuits are perfect for testing your solar ovens.

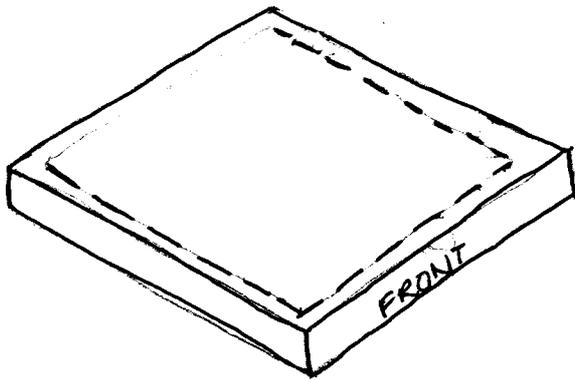


Figure 1

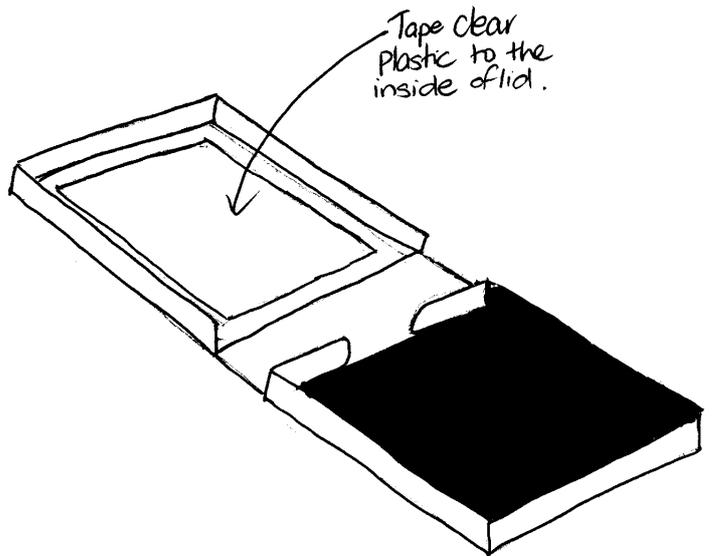


Figure 2

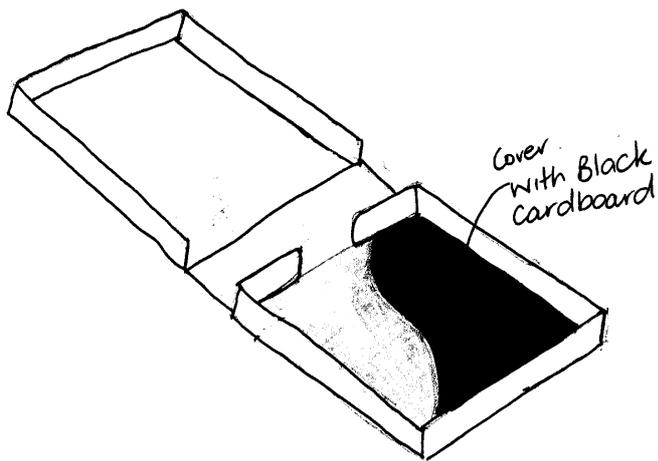


Figure 3

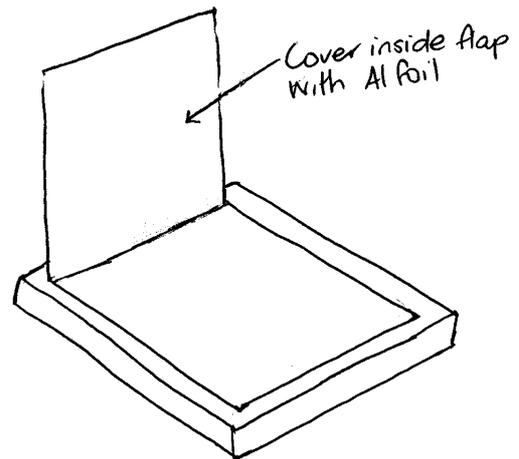


Figure 4

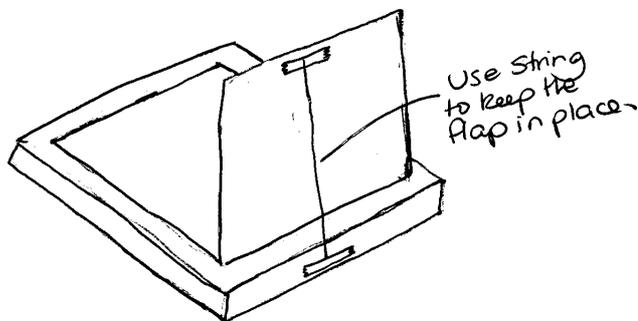


Figure 5