

# The pizza-box solar oven

Concept—We can use the sun's energy directly to cook

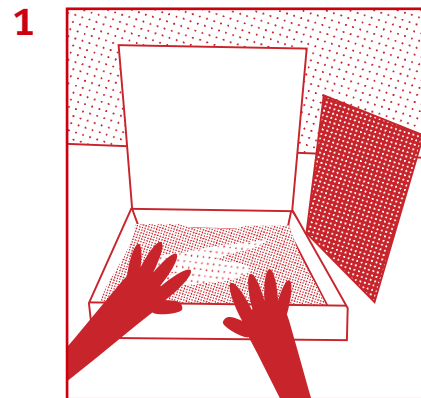
## CURRICULUM LINK:

Geography Curriculum—Natural Environments and Human Environments strands

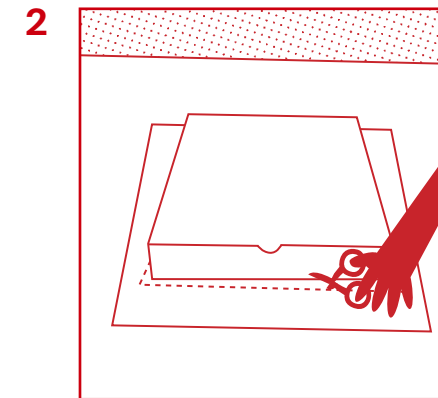
## Experiment

### You will need:

- A medium size pizza box
- Stiff black paper
- Aluminium foil
- Clear plastic (plastic cellophane works well)
- Glue
- Sticky tape
- Scissors
- Ruler
- Marker
- String
- Nail



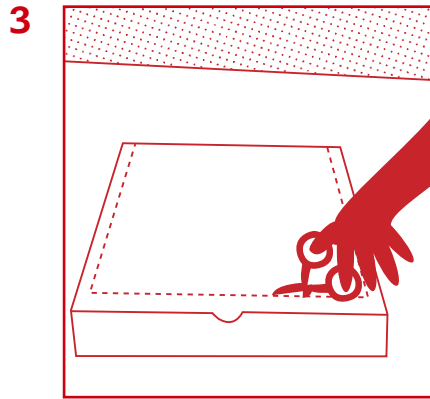
1 Tape foil to the inside bottom of the box, cover the foil with black paper and tape both in place.



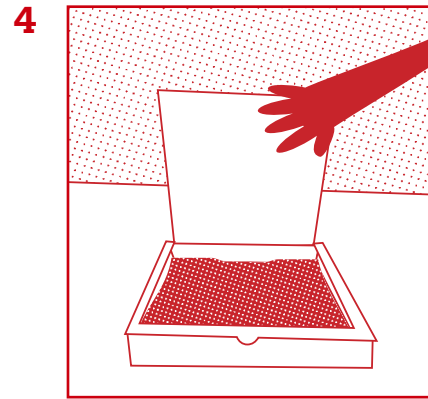
2 Put the box on the plastic and draw the outline of the box on the plastic with the marker. Cut the plastic about 1.25cm inside the mark.

In developing countries, such as in some places in Africa, lots of homes do not have electricity to work the type of cookers that we use in developed countries, so people use solar energy or burn wood for heat and to cook food.

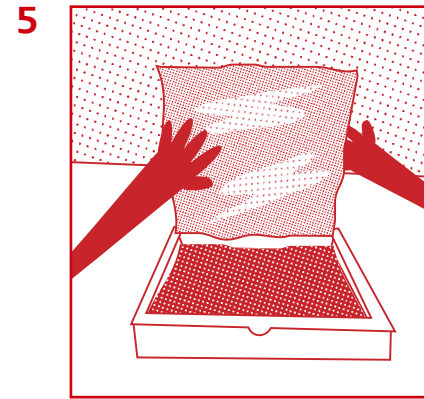
## Pizza-box solar oven continued



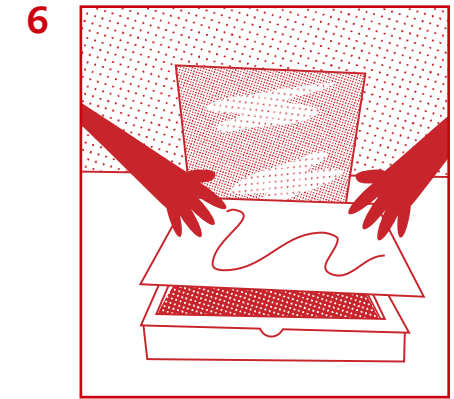
3 On the top of the box draw a line 2.5cm from all sides. Cut along the front and side lines BUT NOT along the back—this will be a hinge for a flap.



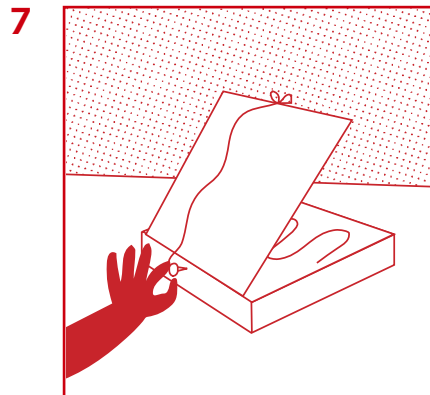
4 Carefully fold open the flap and bend back.



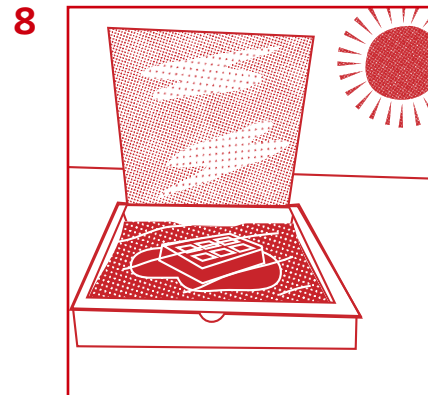
5 Cut a piece of foil the size of the flap. Glue it to the side of the flap that faces INTO the box: this is the reflector.



6 Tape the plastic inside the window you cut on the lid of the box (i.e. on the underside of the lid). Make it tight so it looks like glass and try to make sure it is airtight.



7 Cut a piece of string and tape one end to the top of the flap. Push a small nail into the back of the box and wrap the string around the nail to keep the flap open.



8 Place the box in direct sunlight with the reflector facing the sun and try melting chocolate in your oven (put it on a plate so you don't make a mess).