

2 Build a solar oven

Bake a squishy treat using the power of the Sun.

What you need

- Empty pizza box
- Ruler
- Craft knife
- Glue or sticky tape
- Aluminium foil
- Clingfilm
- Black paper or card
- Lollipop stick
- Plate
- Marshmallows
- Biscuits
- Chunks of milk chocolate

How does it work?

Solar ovens collect light energy from the Sun and use it to heat food. Your pizza-box oven uses reflective foil to bounce the Sun's rays into the oven and trap the energy inside. The black card absorbs direct and reflected sunlight, becoming warm and heating the air inside. The clingfilm makes sure that the warm air does not escape the box. The pizza box doesn't contain a large amount of air, so the oven heats up quickly, gets hotter and stays warm for longer. The temperature in the box can reach up to 200°C.

WARNING!
This oven is only for heating things up. Don't try cooking raw food in it.



1 Ask an adult for help cutting a square out of the lid of a pizza box, using a ruler and a craft knife. Leave a 3cm border around the edges and cut on three sides, leaving one side attached to the box.



2 Lift the flap and cover the underside with aluminium foil. You'll need to fold the foil around the edges of the flap and stick it in place with glue on the other side.



3 Next, cover the hole in the box lid with clingfilm. Fasten the sides down with sticky tape to create a window that lets the Sun's rays into the box.



4 Now, glue or tape more aluminium foil to the inside of the pizza box. Cut a piece of black card to fit the base of the box. Position it in the middle of the base and glue it down.



5 Place your oven in direct sunlight and adjust the height of the lid so that light is reflected into the inside of the box. Prop it open with a lollipop stick and you are ready to heat.



6 Build your s'mores – a biscuit sandwich with marshmallow and chocolate filling – on a plate and pop it into your oven. In about half an hour your s'mores should be gooey and utterly delicious.