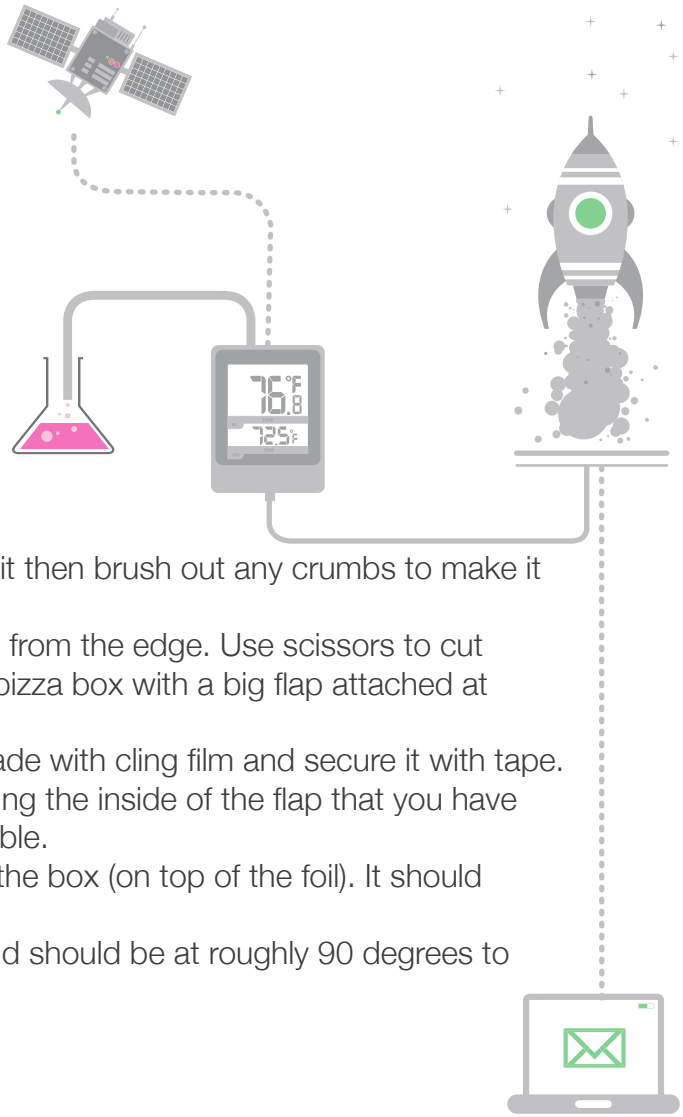
STEM AMBASSADOR HUB
STEM Ambassador Hub North East

PIZZA BOX SOLAR OVEN



Equipment

- Pizza box or similar (the larger the better it will work)
- Paper
- Kitchen Foil
- Pencil
- Ruler
- Scissors
- Glue or sellotape
- Skewer
- Something to cook e.g. s'mores (chocolate digestives and marshmallows)

Method

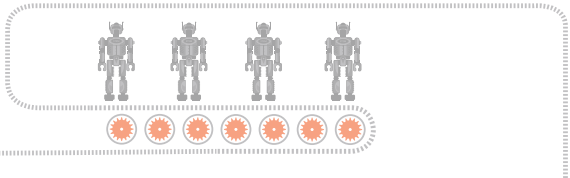
1. If you're using a pizza box that has already had pizza in it then brush out any crumbs to make it as clean as you can, it doesn't need to be perfect
2. On the top of the pizza box lid, draw a square 2.5 cm in from the edge. Use scissors to cut along 3 of the lines you have drawn so that you have a pizza box with a big flap attached at the top.
3. Open the flap up and cover over the hole you've just made with cling film and secure it with tape.
4. Cover all of the inside of the box with kitchen foil, including the inside of the flap that you have just made. It is important to keep the foil as flat as possible.
5. Glue or tape a piece of black paper onto the bottom of the box (on top of the foil). It should cover most of the bottom.
6. Prop open the lid of the solar oven with a skewer. The lid should be at roughly 90 degrees to the rest of the box.
7. Your oven is ready to do some cooking.

Make some s'mores:

1. Place a marshmallow between two chocolate digestive biscuits (chocolate on the inside).
2. Put your s'more on a piece of kitchen foil to act as a baking tray and put it in the middle of your solar oven on top of the black paper.
3. Put the oven in the sunlight facing the sun. Leave it for 30 mins and your marshmallow should go soft.
4. Your s'more is ready to eat!

The Science

Solar ovens use light and heat from the sun to cook the food inside them.
The foil reflects the heat and light into the oven and the cling film helps to keep this heat inside to heat the food, a bit like a greenhouse. The black paper in the bottom acts like a heat sink and absorbs the heat so that it can heat up the food that is placed on top of it.



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