

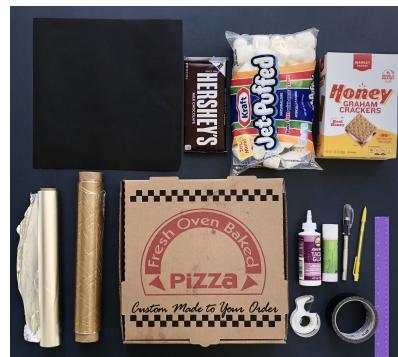
## Solar Ovens: Make s'mores using the Sun's energy!

**Materials:** You will need a pizza box (or any box with a lid), aluminum foil, plastic wrap, sticky tape, glue, a pencil, a ruler, a ruler, scissors or utility knife, some black paper and s'mores ingredients!

**Step 1:** Measure an inch in from the edges of your box lid. Now draw a line that connects your measurements. You should have an outline of a square inside the lid of the box.



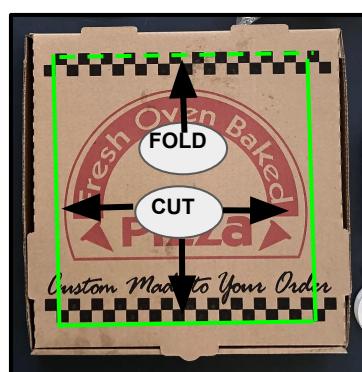
**Step 2:** You need to cut a trap door in the lid of the box! Use scissors or a utility knife to cut **3 sides** of your drawn out square. Fold the last side up to form your door.



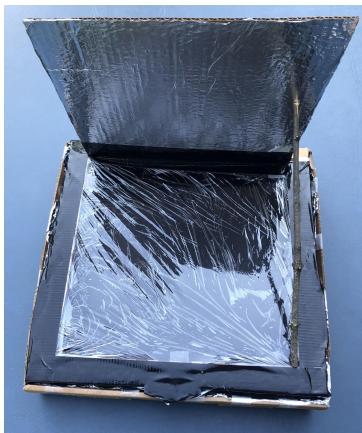
**Step 3:** Open the lid and line the bottom part of the box with aluminum foil. You can use tape or glue to keep it in place.

**Step 4:** Next, glue or tape a piece of aluminum foil to the underside of your trap door. Try to smooth out all the bumps and wrinkles to make the foil more reflective.

**Step 5:** Tape some plastic wrap over the hole in the lid to make a window. You can also put a layer of wrap on the inside of the box to cover the hole. The aim is to seal the warm air inside the oven!



**Step 6:** Try to find a black piece of paper to put on the bottom of your oven. This will absorb more heat!.



**Step 7:** Assemble your s'mores and put them inside the box! Place your oven in a sunny spot and adjust the trap door to reflect more light into the oven. You can use a stick to prop up the trap door. Enjoy!

### Troubleshooting:

- 1) Make sure it is a bright sunny day when you use your solar oven. Even if it is very hot, the oven won't work well on a cloudy day.
- 2) Be patient! This could take over an hour. If the oven is opened too often, all the heat will escape.
- 3) Keep an eye out for varmints and thieves, like Murray the cat! Chocolate is dangerous to pets.
- 4) Try cutting marshmallows in half so they melt faster!



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**How does it work?** The solar oven traps the sun's energy to make the air in the box hotter than the air outside!

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