



Pizza Box S'mores

Subject: Solar Energy

Make some delicious S'mores! All you need is the power of the sun and a few items from around the house.

Materials List

1. Sunny day
2. Pizza box
3. Stick
4. Foil and plastic wrap
5. Scissors, box knife and tape
6. Black construction paper
7. Graham crackers, chocolate bars, marshmallows

Grade: 4th

Time: 1 hour

Vocabulary: energy, solar power, thermal energy

NGSS: 4-PS3-4. Apply scientific ideas to design, test and refine a device that converts energy from one form to another.

Instructions

1. Draw a square on the outside of the pizza box lid that is one inch smaller than the lid. Make a flap by cutting out three sides (front, right side, left side) of the drawn square. Pull the flap up to give it a slight fold.
2. Cover the inside of the cardboard flap with aluminum foil, use tape if needed. Keep the foil as smooth as possible.
3. Open the entire pizza box lid. On the inside of the lid cover the cut-out area with plastic wrap, using tape to help keep it in place. Make sure there are no holes in the plastic wrap. This helps keep the heat in and cooks the S'mores.

See other side



Pizza Box S'mores



Instructions *continued*

4. Line the inside of the box with aluminum foil so that the entire bottom of the pizza box is covered with foil.
5. Then, tape a sheet of black paper to the bottom of the box on top of the foil in the center.
6. Build your best S'mores on the black paper. Close the pizza box.
7. Use a wooden skewer or stick to prop up the flap you cut out earlier, at about a 90-degree angle. Leave the solar oven outside on a hot day.
8. Once the S'mores are all melted, enjoy your treat!



Table Talk

1. What two energies were used in the experiment?
2. What are other ways we see energy being transferred?