



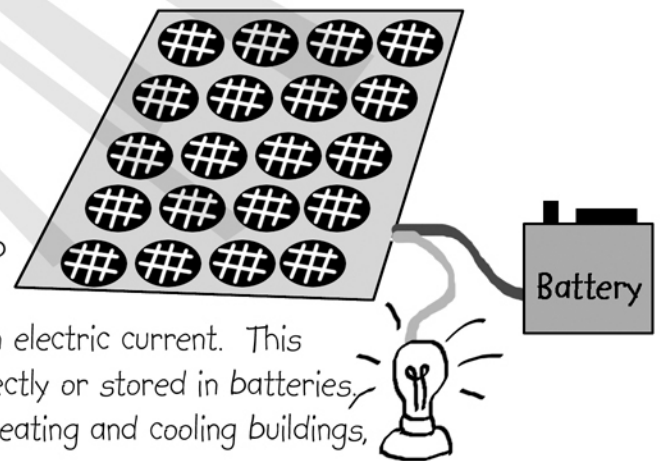
A FLARE FOR Solar ENERGY

The sun is a **POWER SOURCE**. Solar Power is **ENERGY** produced by the **SUN** in the form of **HEAT AND LIGHT**. The sun is 93 million miles from the earth and is 4 to 5 billion years old. The temperature of the sun ranges from 10,000°F at its surface to more than 18 million°F at its center. That's **HOT!**

Solar energy is clean, it does not pollute the air, land or water and there is lots of it, meaning solar energy is a "renewable fuel." The amount of solar energy that reaches us in one day, could supply our power needs for up to one year! By using more solar energy, we can conserve more of our fossil fuels like coal, oil and natural gas. Solar energy is becoming more popular as we find better ways of harnessing the sun's energy.

How WE USE SOLAR ENERGY

There are lots of ways we use solar energy. For example **electricity** is produced using photovoltaic cells that absorb the direct sunlight. Photovoltaic Conversion produces a positive charge (+) and a negative charge (-) producing an electric current. This current is transferred to a metal grid and can be used directly or stored in batteries. The electricity these solar cells produce can be used for heating and cooling buildings, water heating, lighting, and to power vehicles and satellites.

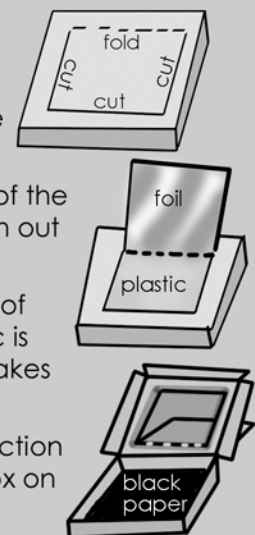


EXPERIMENT let's make a Solar Cooker

You will need:

- A sunny day
- 1 empty pizza box
- Black construction paper
- Aluminum foil
- Sheet of clear plastic laminate
- Non-toxic glue
- Tape
- Ruler and magic marker
- One wood dowel rod

1. Draw and cut a window in the top of the pizza box leaving one side for folding.
2. Cut two pieces of foil to fit on the inside of the lid and to line the inside of the box. Smooth out wrinkles and glue in place.
3. Tape a piece of plastic to the underside of the opening you cut. Make sure the plastic is tightly sealed around all the edges. This makes your oven window.
4. Glue corners of a piece of black construction paper to the bottom of the inside of the box on top of the foil.



Your Solar Oven is now ready! Just place your food to be cooked on the inside the box. Close the box and prop open the lid using the dowel rod. Position your oven in the sun so that the foil lid reflects the maximum amount of sunlight through the window. Try heating up s'mores, hot dogs, melt some cheese on nachos, or even try baking a cookie! Use an oven thermometer to test your oven temperature.