



Hot Dog Solar Cooker Activity



Ready to get started with this activity? To keep track of your progress, check off the instructions for each step below as they are completed. Make sure to check the box of the last step when you're done to receive congratulations for your completed activity!

Consider this: The sun's energy can be harnessed to cook large pots of boiling water to a singular hot dog. With this experiment you will even have chips for a side dish!

1. Gather Your Materials

- Scissors or Craft Knife
- Tape
- Marker
- Wood Skewer
- Glue
- Plastic wrap
- Chip Can, not plastic
- Hot Dog

2. Preparing the Chip Container

- Empty the chip container and wipe it out.
- Draw a rectangle on one side of the can, the length of the can.
 - Leave about a centimeter at each end do not cut all the way to the ends









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3. Adding the Skewer

- Locate the center of the plastic lid and carefully put a small hole in the lid.
- Thread the wooden skewer through the lid hole (sharp end first). •
- Locate the center of the end of the can and carefully put a small ٠ hole in the bottom.
- Push the wooden skewer through the hole enough that the ٠ skewer is suspended.

4. Plastic Wrap and Tape

- Take plastic wrap and tape and cover the rectangular hole. •
 - Tape this tight we want to keep bugs out and heat in. •

5. Skewer the Hot Dog

- Remove the lid, pulling the wooden skewer with the lid.
- Thread a hot dog onto the skewer.

6. Start Cooking

- Place the cooker in the sun.
- Rotate hot dog by twisting the wooden skewer on the lid • end of the cooker.





















9. Things to Think About

- This solar cooker works because it traps light particles, called photons, inside and that generates heat.
- The interior of the chip can is reflective so it directs the photons back to the hot dog.
- Solar cookers are used around the world to cook food and pasteurize water for safe drinking.
- The first solar cooker was invented by Horace de Saussure, a Swiss Naturalist, in approximately 1767.
- On a clear day the cooker can heat up to 250 degrees F and on partially cloudy days the oven will heat to 200-250 degrees F.
- It is best to calculate the food will take twice as long to cook in a solar cooker.



