

Soda Bottle Water Pasteurizer

The soda bottle pasteurizer is a solar water heater and pasteurizer made from everyday recyclables.

Tools and equipment

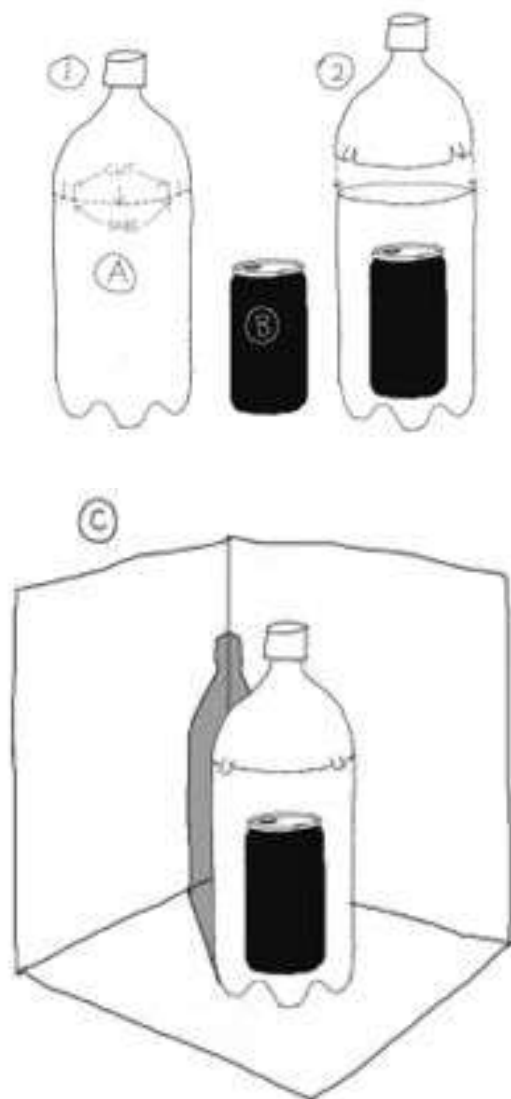
Scissors, Knife, Glue, Tape, Thermometer

Materials

- 1 or 2 liter clear plastic soda bottle.
- 12 oz. aluminum soda can,
- Corrugated cardboard box approx. 16" x 16" x 16"
- Aluminum foil or reflective plastic from inside chip bags, etc.

Instructions

- From a 1 or 2 liter clear plastic soda bottle (A) cut off the top, 1" below where it becomes straight.
- Cut 4 tabs 1/2" wide x 1" long into the top (fig.1)
- Paint a 12 oz. aluminum can (B) with black paint. It is also possible to coat the can with carbon black from a candle or wood fire.
- Put the can filled with water into the plastic bottle bottom and insert top with tabs folded out (fig.2).
- To make the reflector (C), start with a corrugated cardboard box approximately 16" x 16" x 16". Cut off the top and two sides of the box. Cover the two remaining sides and bottom with aluminum foil or potato chip bags with silver coating facing out (use wheat paste, glue or tape to adhere to cardboard). Place bottle on reflector (C) and place in sun. Keep bottle shadow centered on back of solar panel.
- To pasteurize, water must be heated to 158° F (65° C).



Source: http://solarcooking.wikia.com/wiki/Soda_bottle_pasteurizer