



SOLAR POWERED DESALINATOR

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MATERIALS

- 1 large container (e.g. a measuring jug)
- 1 much smaller container
- Food colouring
- 1 tsp of salt
- 1 small weight (e.g. a rock or washer)
- Plastic wrap
- 1 Elastic band

30 MINS

PROCEDURE

Step 1

Tape the small container into the bottom/centre of the larger container.

Step 2

Fill the inside of the big cup (outside of the small cup) with water. Fill it up until slightly below the top of the small cup (so the small cup does not have any water in it).

Step 3

Add the food colouring and salt to the water.

Step 4

Put plastic wrap over the top of the big cup, with some extra around the edges. Place an elastic band around the edges to hold it in place, so that the plastic is able to significantly sag down towards the smaller cup.

Step 5

Place the weight on the plastic wrap so that it sags down into the cup, so a point is formed that is just above the small cup.

PLACE YOUR DESALINATOR IN THE SUN, AND CHECK BACK IN A FEW HOURS TO SEE WHAT HAPPENED!

PURPOSE & SCIENCE OUTCOMES

- Desalinated water collects in the small cup. The lack of colour represents the lack of salt without having to taste it!
- This happens because the water evaporates out of the saltwater solution.
- Desalination is of growing importance because of a lack of freshwater - here we used solar energy to power our system!