

MAKE CLEAN WATER WITH SOLAR!!

Can you think of a way of cleaning dirty water using the sun? How about getting salt out of water using the sun? In this activity, you will be making a "solar still" that is able to do just that! Let's get started!

What You Need:

- a wide plastic basin
- a smaller jar or glass for collecting the clean water
- a large piece of transparent plastic, plastic wrap can work
- string or rubber band to hold plastic in place
- a stone
- salt

What You Do,

Step 1

Mix salt in some tap water. Put salty water in the bottom of your basin. Make sure the water is below the height of your collecting jar.

Step 2

Place your collecting jar in the middle of your basin.

Step 3

Cover the basin with the plastic wrap. Make sure that it is secured tightly at the edges. Use a string or rubber band to seal off the edges.

Step 4

Place a stone in the middle of the plastic wrap just above your collecting jar.

Step 5

Carefully move your solar still into the sun.

Step 6

Observe carefully.

Step 7

After a few hours, when you take your solar still apart, taste the water in the collecting jar. What happened? Did you notice drops of water appearing on the inside of the plastic? Where did they come from?

Step 8

Try to think about and describe the two changes of state that have occurred to the water that collects in the collecting jar.

What Happened?

When water evaporates it leaves all of its impurities behind. If there are any bacteria or dissolved salts, they are left behind in the basin. Only pure water evaporates and is condensed on the plastic. This is why the water in the collecting jar is not salty.