Clean Water Using the Sun!

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's able to do just that!

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 works
- String or rubber band to hold plastic in place
- Stone
- Salt

What You Do:

1. Mix salt into some tap water and put the salty water in the bottom of your basin.
2. Place your collecting jar in the middle of your basin. Make sure the water is below the height of your collecting jar.
3. Cover the basin with the plastic wrap. Make sure that it's secured tightly at the edges. Use a string or rubber band to seal off the edges.
4. Place a stone in the middle of the plastic wrap just above your collecting jar.
5. Carefully move your solar still into the sun and let it sit for about half and hour.
6. After the solar still has been out in the sun for a while, return to it and encourage your child to record his observations.
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?
8. Try to think about and describe the two changes of state that have occurred to the water retained 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. That's why the water in the collecting jar is not salty!

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