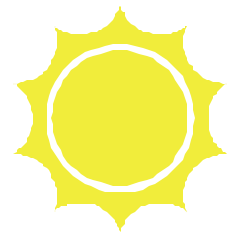


# INTERMEDIATE SCIENCE PROJECT: Solar Distiller



**Questions:** Can you distill clean water from muddy water?  
Can you distill clean water from salty water?

**Hypotheses:**

You can/cannot distill clean water from muddy water.

You can/cannot distill clean water from salty water.

**Materials:**

Two large plastic or glass containers

Clear plastic wrap

Masking tape

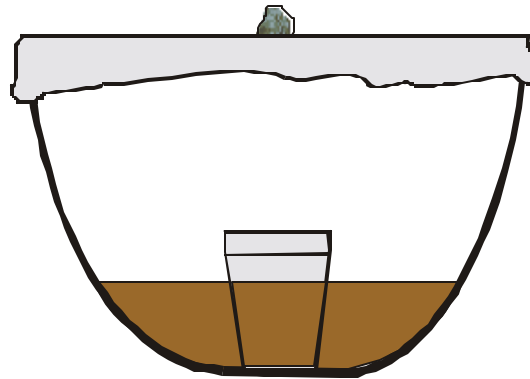
Two small rocks

Two small glasses

Two tablespoons of dirt

Two tablespoons of salt

Water



**Procedure:**

1. Fill both large containers with one inch of water. Mix the dirt into the water in one container and the salt into the water in the other container.
2. Place one empty glass upright into the water in the middle of each plastic container. Make sure the glass remains empty.
3. Cover both plastic containers tightly with plastic wrap and seal them with tape. On both containers, place a rock in the middle of the plastic wrap directly over the glass but not touching it.
4. Place the containers in a sunny place for two hours. Examine any water that forms in the glass. Record your observations.

**Analysis and Conclusion:** Did the solar distillers produce clean water? Can you devise a test to determine if there is any salt in the distilled water?

Can you explain how a solar distiller works?

Can you imagine a situation in which this knowledge could save your life?

