

Answers from the Solar Still activity

- It evaporated out of the bowl and condensed on the plastic wrap.
- The water on the plastic wrap dripped down into the cup.
- The rock helped the water drip in the right spot (the cup).
- The sun's heat energy.
- Yes. In a solar still, dirt, salt and other impurities are left behind, with pure water condensing.

Vocabulary for young students

- **condensation** – a reduction to a denser form of matter such as from water vapor to liquid water
- **desalinization** – process of removing salt and other chemicals and minerals from a liquid
- **evaporation** – process of changing a liquid into vapor
- **purify** – to remove undesirable elements or impurities
- **solar still** – a device that uses solar energy to evaporate a liquid

Background information about distillation

Stills are commonly used to purify liquids. Through the process of distillation, non-volatile impurities can be separated from the liquid. Distillation can be a simple process. Heat is first added to a liquid to evaporate it and produce a gas or vapor, then heat is removed from the vapor to condense it back to a liquid.

Larger solar stills can be used to produce drinking water in an emergency situation. Additionally, research is being done in many areas to develop a cost effective method of salt water desalination to provide an limitless source of drinking water.

A solar still uses the greenhouse effect to trap energy from the sun. The solar still is a model of the water cycle on earth: evaporation, condensation, precipitation.

Related books for young students

- *A Drop Around the World* by Barbara McKinney (Dawn Publications, 1998)
- *All the Water in the World* by George Ella Lyon (Atheneum/Richard Jackson Books, 2011)
- *Down Comes the Rain (Let's-Read-and-Find-Out Science 2)* by Franklyn Branley and James Hale (HarperCollins, 1997)
- *The Snowflake: A Water Cycle Story* by Neil Waldman (21st Century, 2003)
- *Water Dance* by Thomas Locker (HMH Books for Young Readers, 2002)