ACTIVITY AT HOME

PINK PALACE MUSEUM

Earth Science

VANISHING WATER

Determine why lakes dry up.

Materials

2 Glass jars with lids

Masking tape

Marker

Procedure

- Put a strip of tape down the side of both jars from top to the bottom.
- Fill both jars half full with water.
- Use the marker to mark the top of the water level on each strip of tape.
- Seal one jar with a lid and leave the second jar open.
- Allow the jars to sit undisturbed for 2 weeks.
- Observe the level of the water in each jar and mark the new level if there is a change.

Results

The level of the water in the open jar is lower and the water level in the closed jar is unchanged. On some days, the closed jar looked cloudy, and drops of water cling to the inside of the glass.

Why?

Liquid water molecules on the surface of water absorb enough energy from the surrounding air to change into a vapor. In the open jar, like any body of water exposed to the open air, water molecules on the surface vaporize and move upward into the atmosphere. As each water molecule vaporizes and leaves, the level of the water decreases. Surface water vaporized in the closed jar, but it was not able to escape. The vapor condensed (changed back into a liquid) as it hit the cool surface of the jar. The rising vapor above a lake or any body of water condenses when cooled, but the water droplets can be carried to other areas by moving wind. Lakes dry up when the evaporating surface water does not return in the form of rain.

This activity was adapted from *Earth Science for Every Kid.*

To learn more about earth science, check out the *Restless Earth* exhibit at the Pink Palace Museum.