

Whitney Water Center Learning from Home

Episode 13: Evaporation

Introduction

Water exists in all three states of matter: liquid, solid, or gas. *Evaporation* happens when water gets warm and changes from a liquid to a gas, or water vapor. Typically, evaporation is an invisible process and is not easily observed. Today's two experiments will take some of the mystery out of the evaporation process.

Experiment 1: Evaporation (and the water cycle) in a bag

Materials

- Zip-loc bag
- Permanent marker
- Water (with food coloring, if available)

Experiment 2: Only water evaporates

Materials

- Salt water solution (one part table salt to four parts tap water)

This experiment will need a few days for the results to be visible. The faster the water evaporates, the smaller the salt crystals. The slower the water evaporates, the larger the salt crystals that are left behind.

Experiment 2 Extension

Repeat the experiment using sea salt or Epsom salt solutions and look for changes in the shape and structure of the salt crystals.

Link to video

Facebook: <https://www.facebook.com/scctrwa/videos/240966750477177/>

YouTube: <https://youtu.be/DysAoV9v5R0>

Estimating Buoyancy

1. Create a boat from a piece of foil.
2. Estimate how many marbles (or other like objects) your boat can hold and stay afloat.
Record your estimate on the table below.
3. Add marbles one at a time until the boat sinks.
4. Record your results on the table.
5. Redesign your boat and repeat the experiment!

Draw your Boat	Estimated number of marbles	Actual number of marbles

