Water Evaporation



Water Evaporation

Objective:

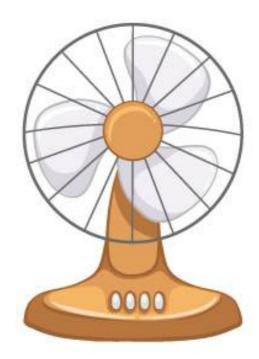
Determine how different variables (e.g., temperature, humidity, air flow, and surface area) influence the rate at which water evaporates.



Water Evaporation

Hypothesis:

If temperature, airflow, and surface area are increased, then the rate of water evaporation will also increase.





Water Evaporation

Materials:

Containers of equal size and shape

Water

Thermometer

Fan

Measuring tools (ruler, measuring cup)



Water Evaporation

Preparation:

Fill each container with the same amount of water.

Once filled, use a ruler to measure each water level.

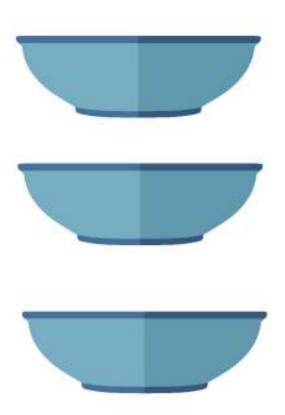
Record each level.



Water Evaporation

Preparation:

Place container 1 in a warm environment (outside), container 2 in a cool environment (refrigerator), and container 3 in a controlled room temperature environment.



Water Evaporation

Preparation:

Place container 4 in an area with increased airflow (e.g., near a fan), and with container 5, increase the surface area of water (e.g., by pouring it into a shallow dish).



Water Evaporation

Monitor the containers over a set period of time, recording the water level at regular intervals. Record your results.



Water Evaporation

Graph or chart the data to visually compare the water evaporation rate under different conditions.

	DAY ONE	DAYTWO	DAY THREE
COLD			
WARM			
ROOM TEMP			
SHALLOW			
WITH FAN			

Water Evaporation

Summarize the findings and relate them back to the hypothesis.

Discuss any unexpected results or limitations of the experiment.

Suggest areas for further research or improvements to the experiment design.



Water Evaporation Rates

Investigate how different variables affect the rate of water evaporation.

Hypothesis:

If temperature, airflow, and surface area are increased, then the rate of water evaporation will also increase.

Materials:
Containers of equal size
and shape
Water
Thermometer
Fan
Measuring tools
(ruler, measuring cup)

Procedure:

- 1. Fill each container with the same amount of water.
- **2.** Place one container in a warm environment, another in a cool environment, and a third in a controlled room temperature environment.
- **3.** Place one container in an area with increased airflow (e.g., near a fan), while the others remain unaffected.
- **4.** Keep one container as is, and increase the surface area of water in another (e.g., by pouring it into a shallow dish).
- 5. Measure and record the initial water level in each container.
- **6.** Monitor the containers over a set period of time, recording the water level at regular intervals.
- 7. Calculate and compare the rate of water evaporation for each condition.

Graph the data to visually compare the water evaporation rate under different conditions.

Calculate averages and percentages to quantify the differences observed.

Summarize the findings and relate them back to the hypothesis.

Discuss any unexpected results or limitations of the experiment.

Suggest areas for further research or improvements to the experiment design.