

Science Fair Project 2022:

How does the surface area of
water in a container affect water
evaporation rates?

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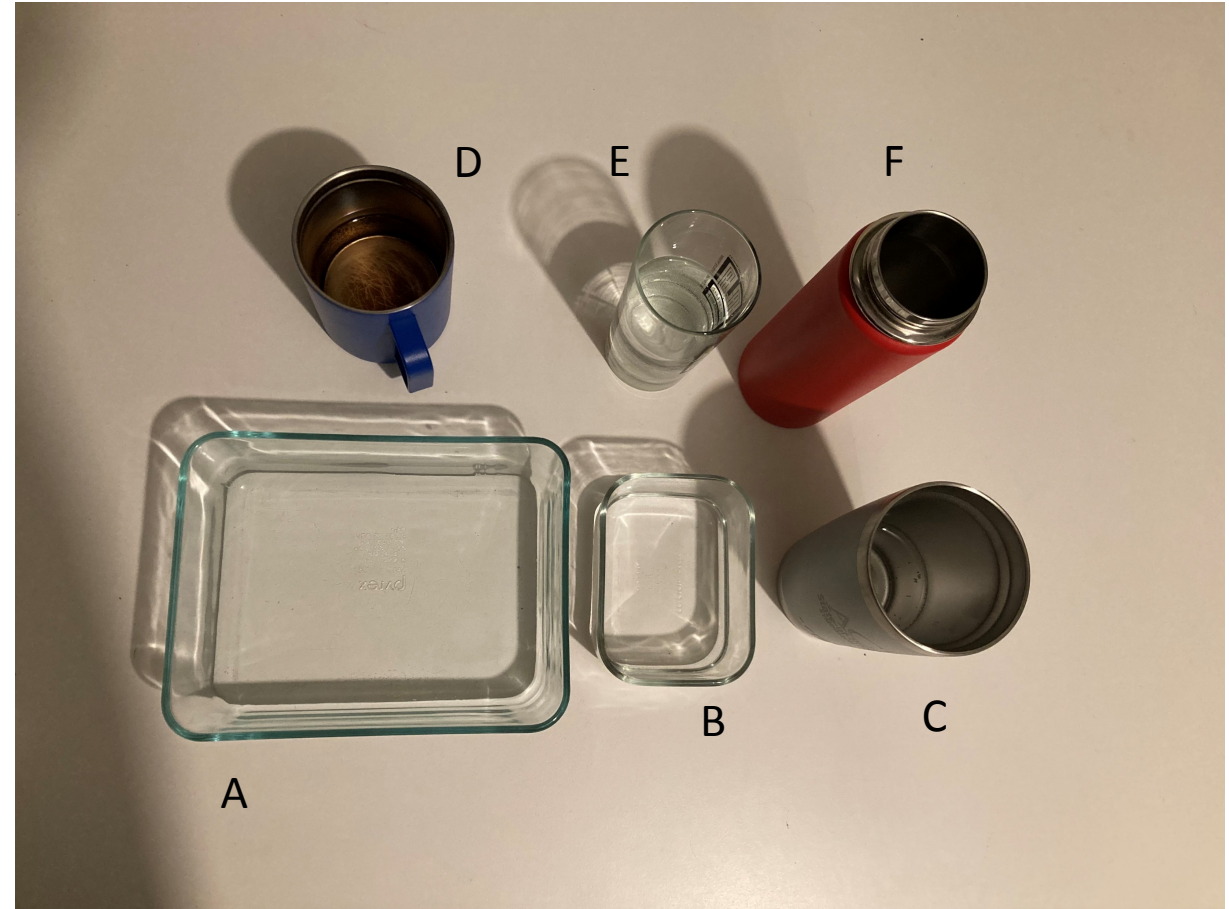
My Hypothesis:

I hypothesize that the larger the surface area of the water in the container, the faster water will evaporate.

Procedure:

- Fill 6 containers with the same amount of water.
- Weigh the containers every twelve hours and record their weight.
- Repeat the second step for a week.
- Measure the containers' dimensions to calculate the surface area of the water in the containers.
- Plot the data.
- Look for patterns.

This experiment was performed in the basement.



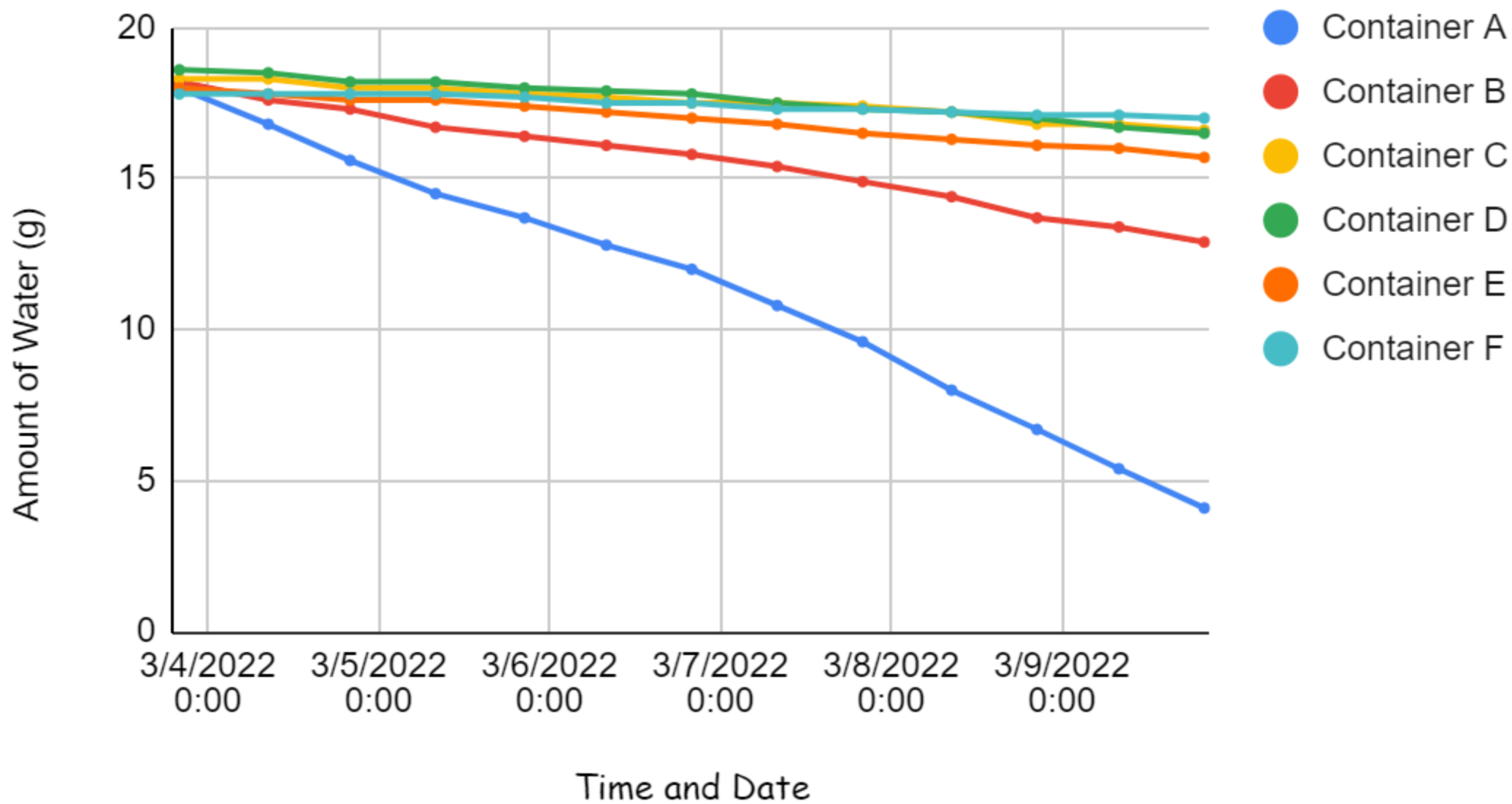
Independent/Dependent Variable & Constant Conditions.

Independent Variable: Surface area of water in the containers.

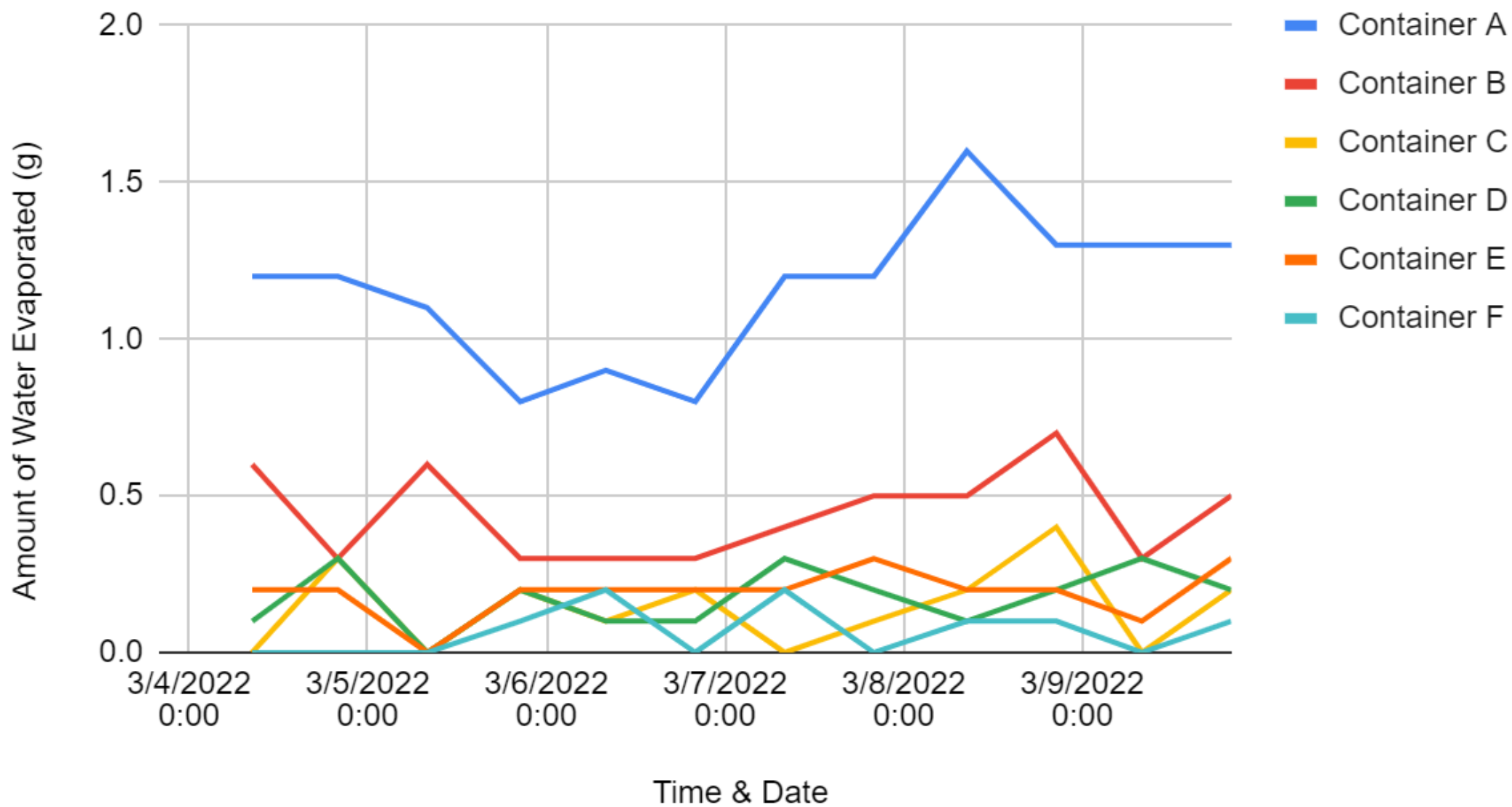
Dependent Variable: Evaporation rates.

Constant Conditions: Amount of water, temperature, time between when weighed.

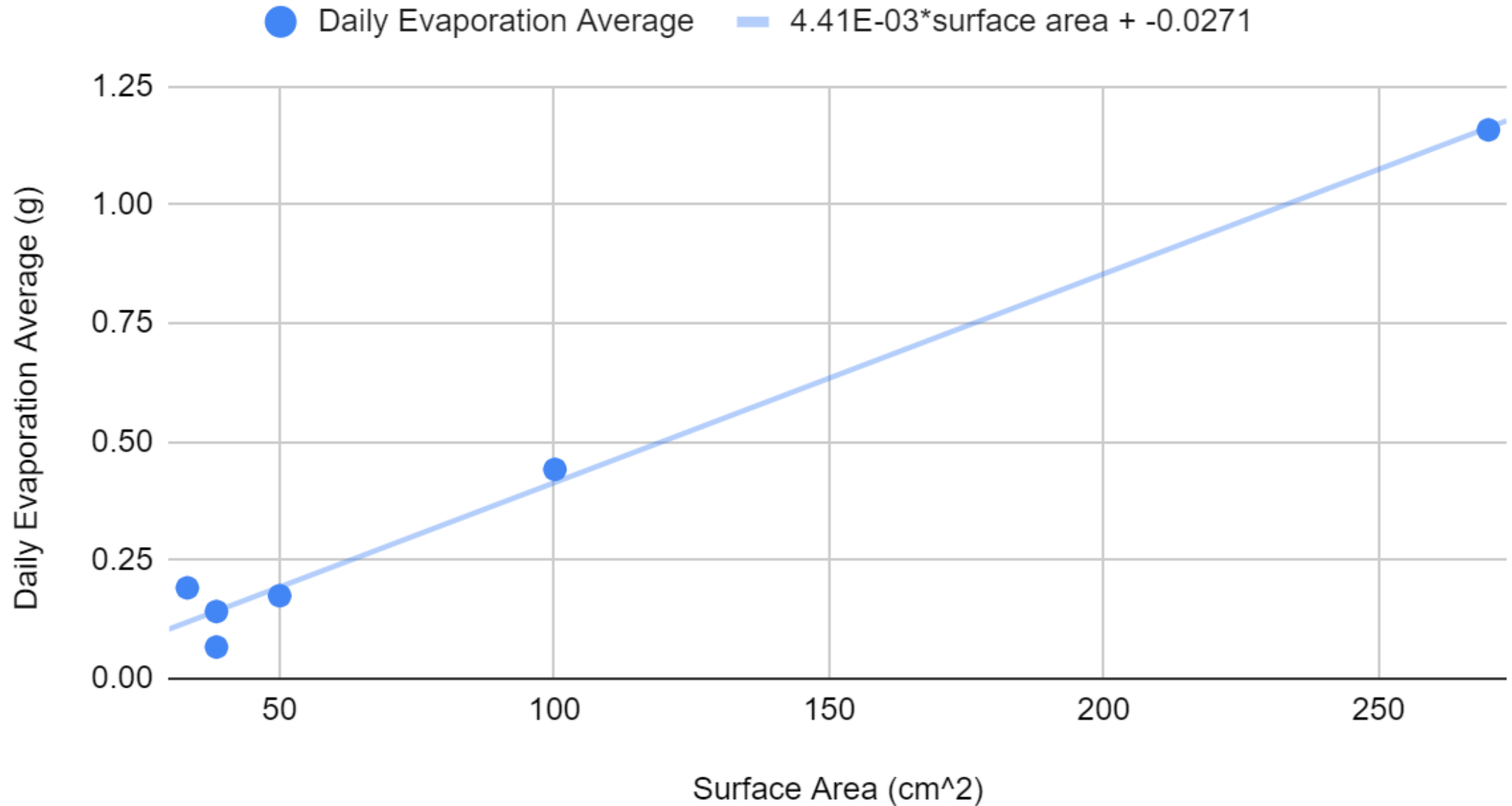
Water Evaporation



Daily Evaporation



Daily Evaporation vs. Surface Area



Conclusion and Reflection:

- I found out that, as I hypothesized, the larger the surface area of water in the container, the faster water evaporated.
- It turns out that there was a linear relationship between them.
- There are a few things that I could have done better.
 - I could have been more precise about filling the containers with water. I just filled a cup and poured the water into the containers.
 - Also, the containers were made of different materials, so that could have made a difference.
 - This experiment demonstrated some physical principles. However, it lacks practical application at this point.