



Christian Bradley-Foster

# Evaporation Mission Assignment

# **Day one - 22nd January 2021**

**Water,**

**Salt Water,**

**Lemonade,**

**Kitchen Cleaning Solution.**

# Start of experiment.

## Day one

100 ml of solution was added to each glass.

Temperature recorded at approximately 18-20 degrees Celsius during the day. Unrecorded at night.

Experiment started at 12 pm and recorded for approximately 2 months, until all solution had evaporated from each glass.

# January. After one week - observation.

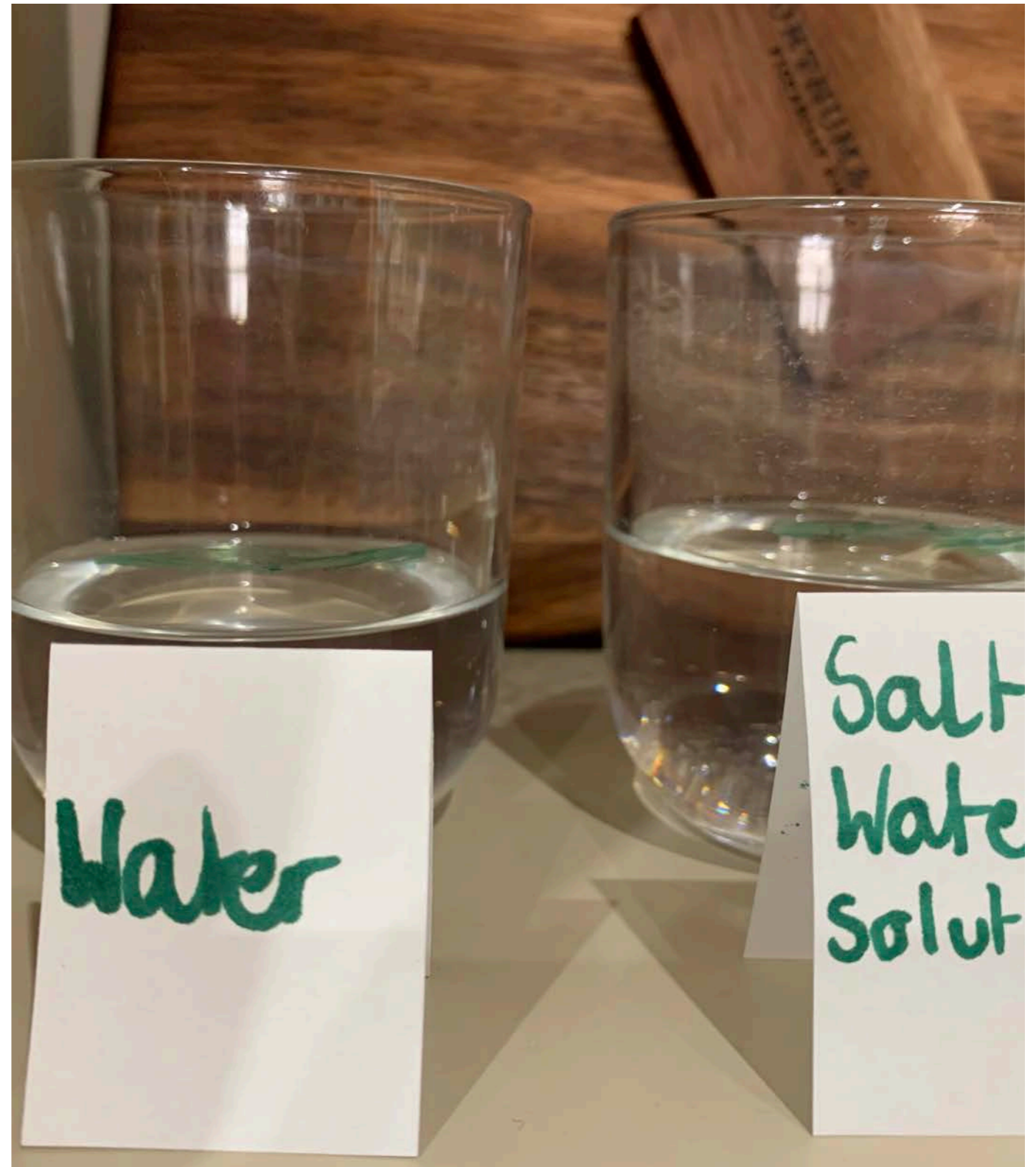
## Water and Salt Water

Water evaporated at the fastest rate at approximately 3ml per day.

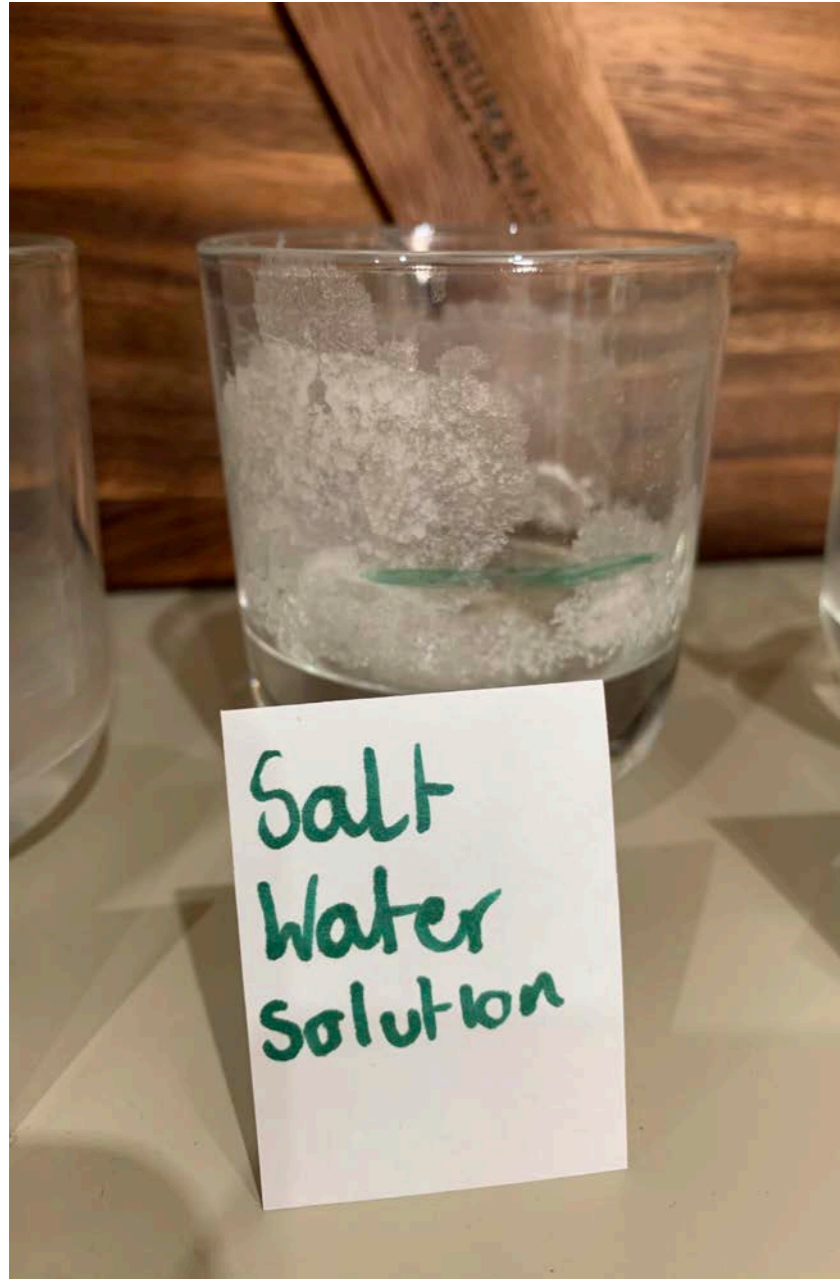
The salt water reduced at the third quickest rate in a week. It was observed that the salt was visible at the bottom of the glass and it was very slow to evaporate.

## Lemonade and Kitchen Cleaning Solution.

The kitchen cleaning solution was observed to evaporate the second fastest, as the solution was quite thin and more water based than oil based. It was evaporating at a similar rate to the lemonade but the lemonade was evaporating slightly slower, possibly due to the bubbles or carbonation and sugar content making it thicker?



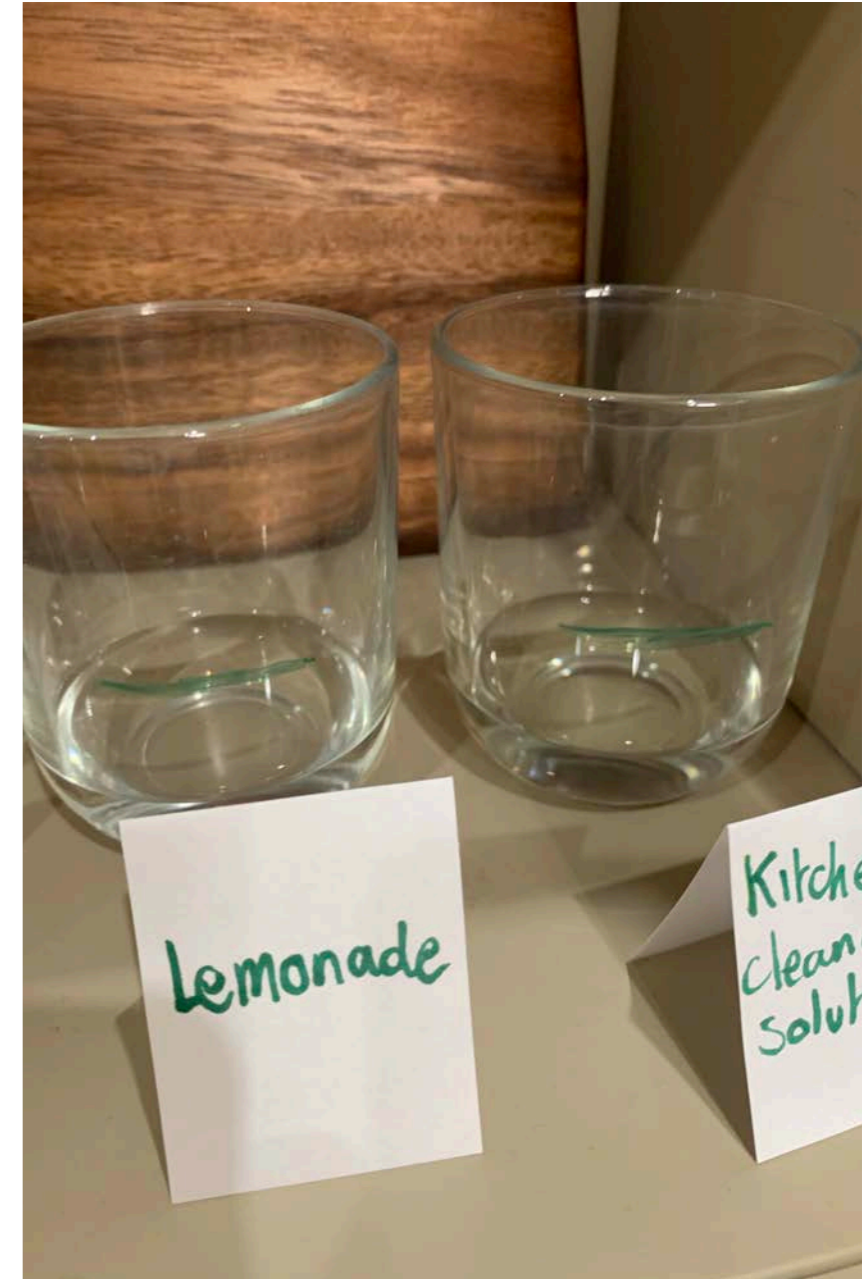
# February Observations



The salt water can be seen to be forming crystals where the salt has been and creating a chemical change. Water remains in the glass.

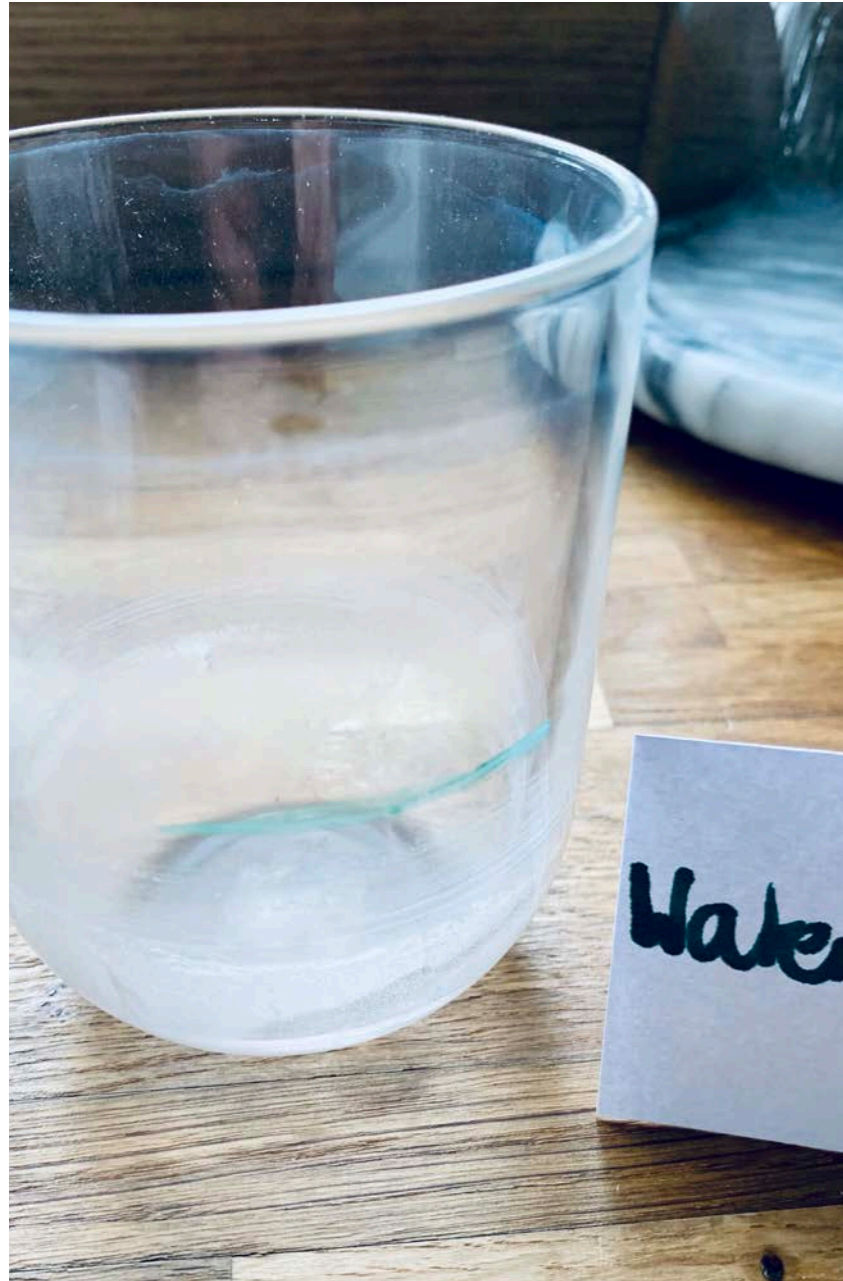


Water remains in the glass and limescale can be observed, leaving a cloudy film on the glass.

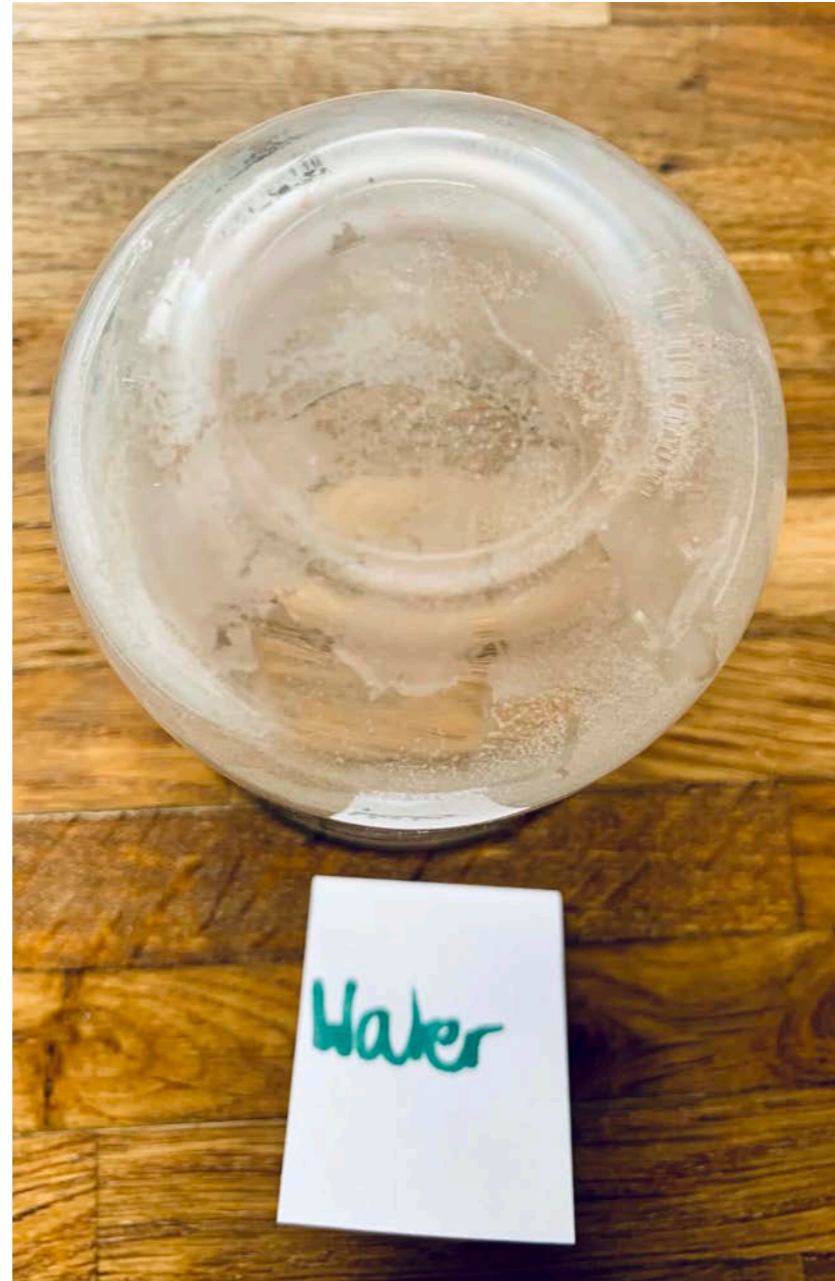


Lemonade and cleaning solution showing no chemical change

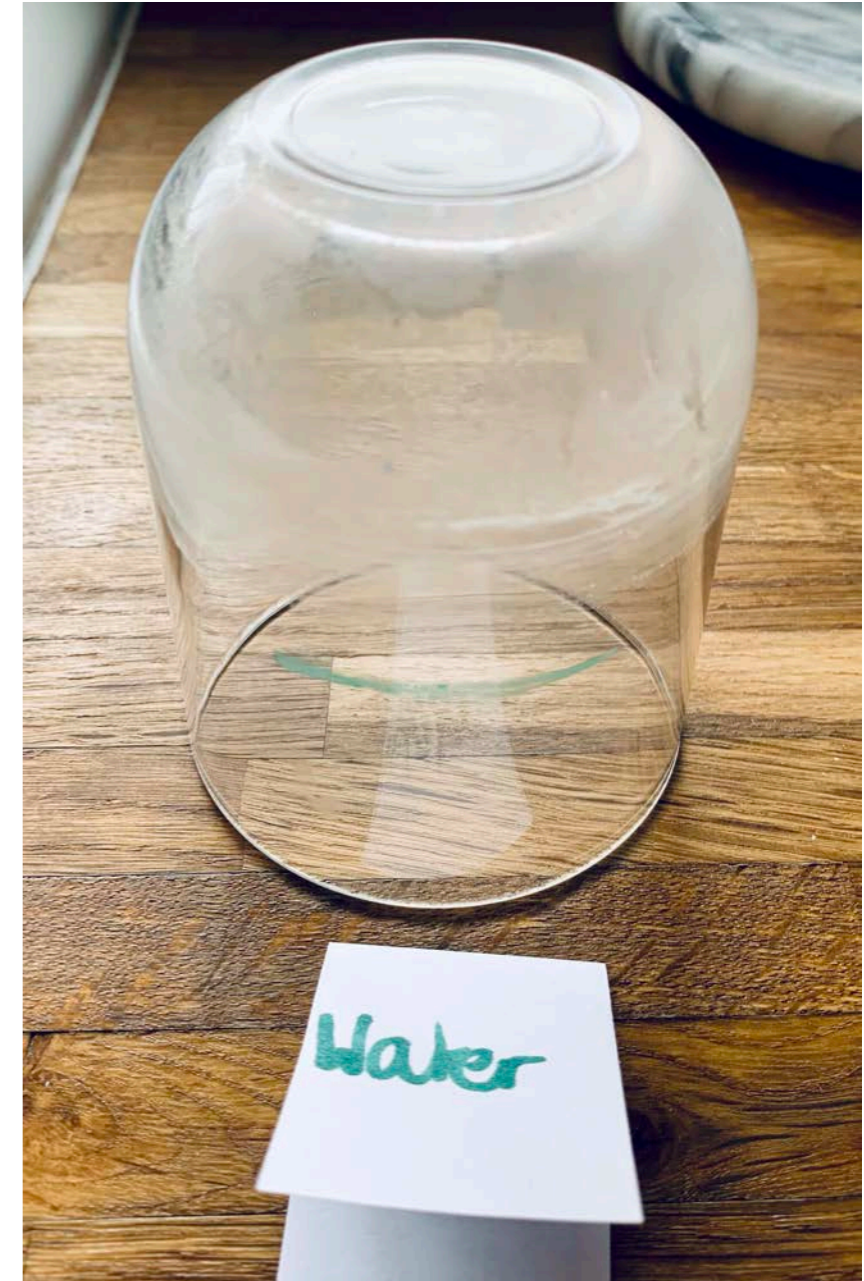
# March Observations - Water



Water 6th March 2021

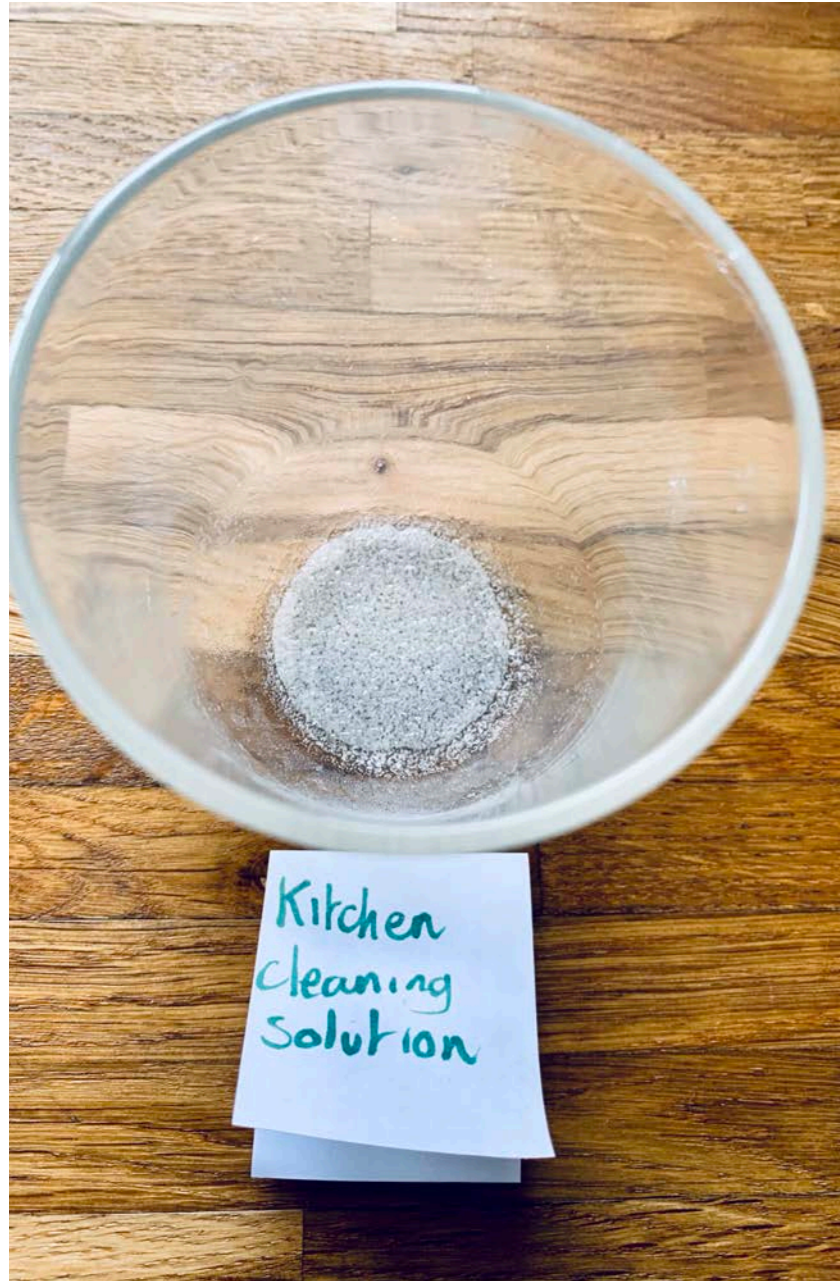


The water has completely evaporated and left a chemical change showing limescale at the bottom of the glass

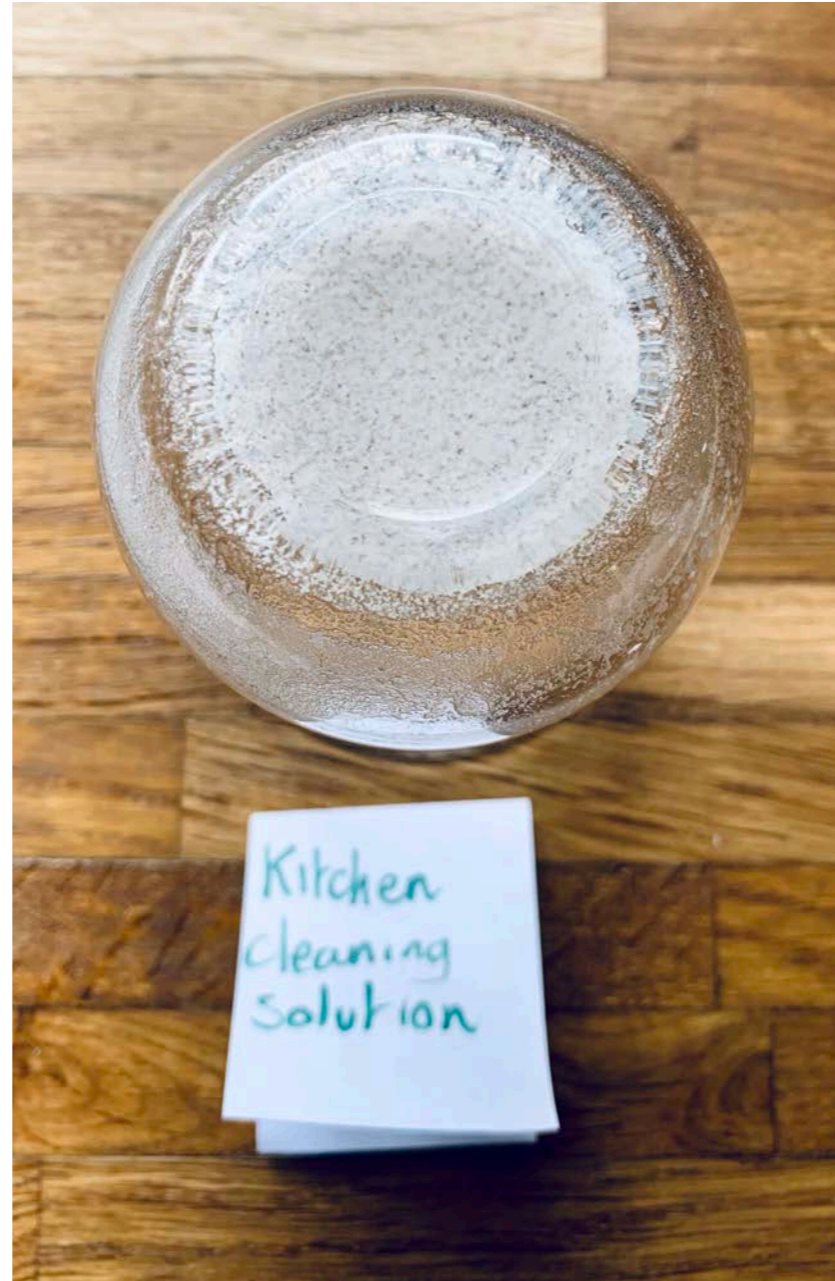


Limescale observed

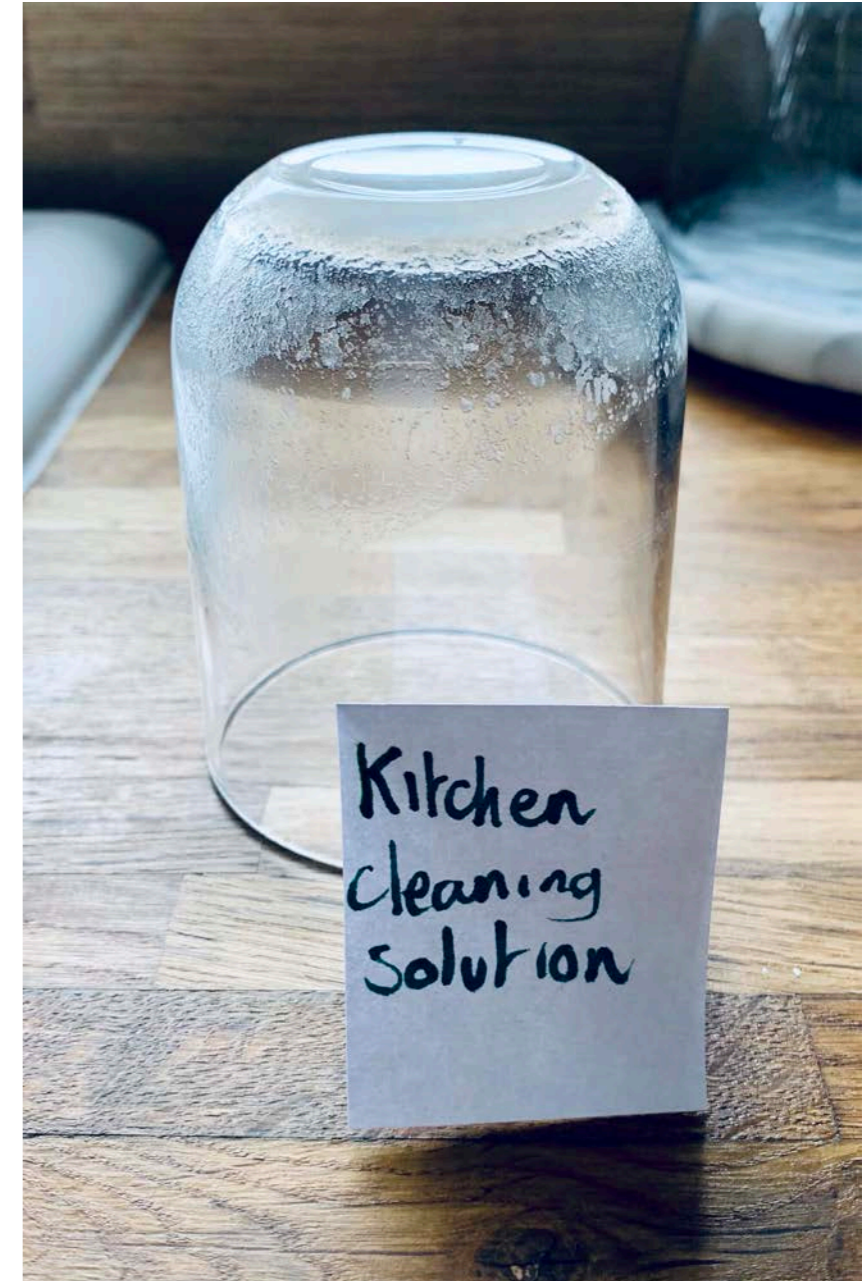
# March Observations - Kitchen Cleaner



Kitchen Cleaning Solution 6th March 2021



A grainy and slightly greasy solution now remains in the glass. This is also a chemical change.



Grainy solution observed

# March Observations - Lemonade



Lemonade 6th March 2021



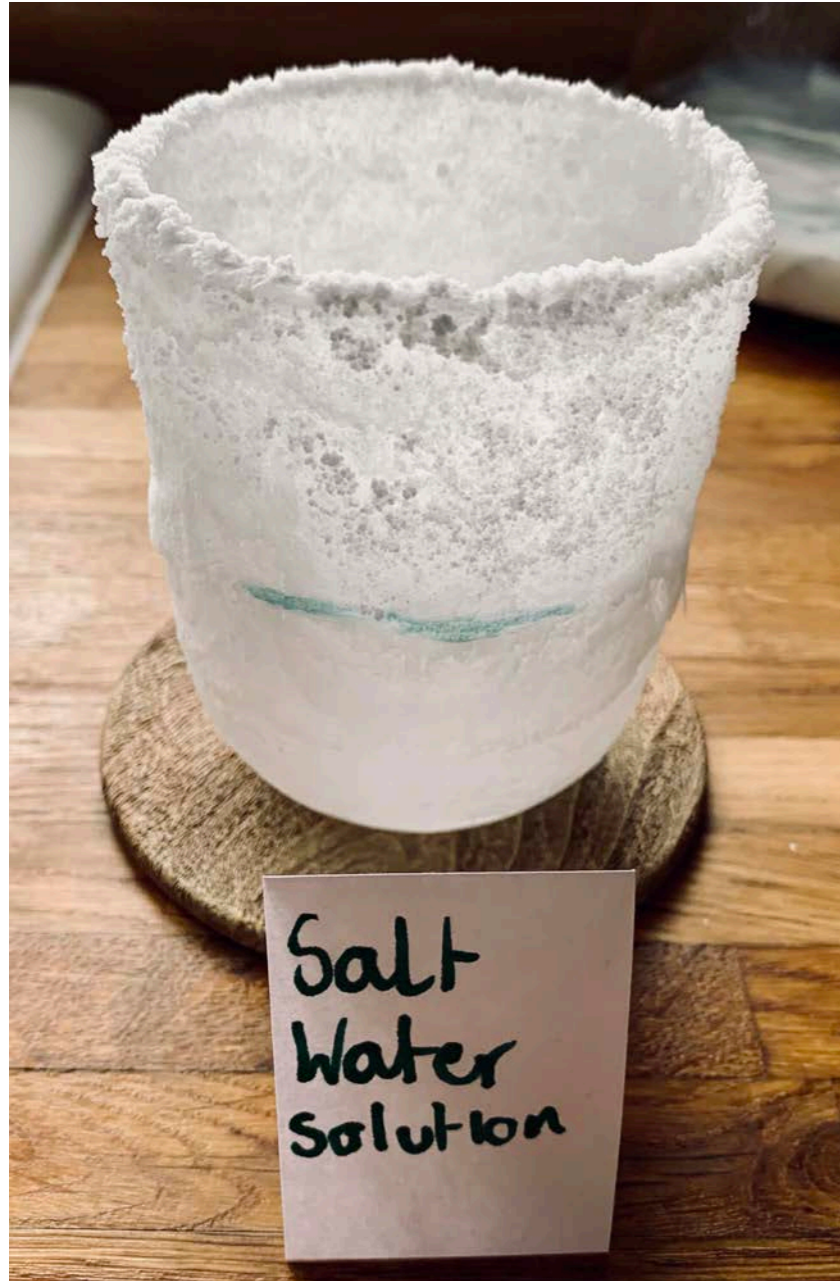
A thick substance remains, which I think is sugar/ glucose syrup.



Sugar syrup observed.



# March Observations- Salt Water



Salt water solution 6th March 2021



Salt is observed to have formed crystals that have completely covered the glass inside and out.



Salt observed on the outside of the glass.

# End Result, 6th March:

The biggest chemical change came from the salt water solution. All the other glasses also showed chemical change, but not at much as the salt water experiment.

The glass with water in evaporated at the quickest rate and showed limescale at the end result.

The glass with kitchen cleaning solution showed little change throughout the two months of the experiment until the end when the actual chemicals in the cleaning solution could be seen.

The glass with the lemonade in had a similar result throughout as the kitchen cleaning solution and only really showed a chemical change right at the end.

Factors that helped with the speed of evaporation was the temperature in the room and how thick the liquid was, for instance thin and not thick or oily.

Overall, the experiment lasted 43 days in total and this was mainly because I used 100ml for each glass. The experiment would have been shorter if I'd used less liquid in each glass at the start, but would this have shown as good results?