



Water Testing!

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Introduction and Hypothesis



The study that we will be doing is water testing. My group and I will be testing different water samples over the course of a few weeks. We will determine their water quality levels because we want to find out the difference between “drinking water” like Pure Life, Aquafina, and filtered fountain water, than beach water? To test their quality we will be testing its Ph, Ammonia, nitrite, and nitrate water levels. We want to research their different quality substances and see what/how they are different from each other. We were curious if the water would change the more we let it develop after the recommended amount of time. We will be gathering our supplies from home, school, and nature. The testing will be done at school in science class.

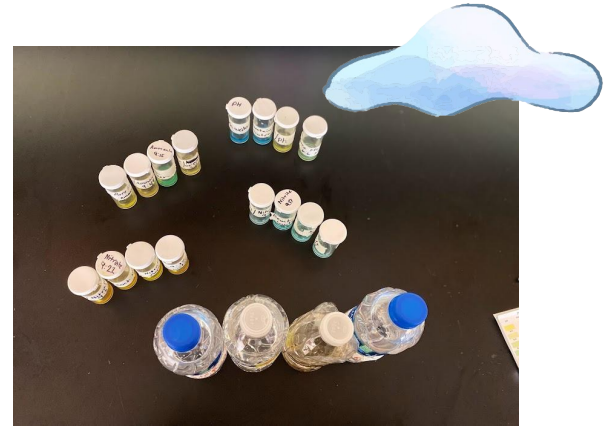


Research Question

How do different types of water affect the quality?

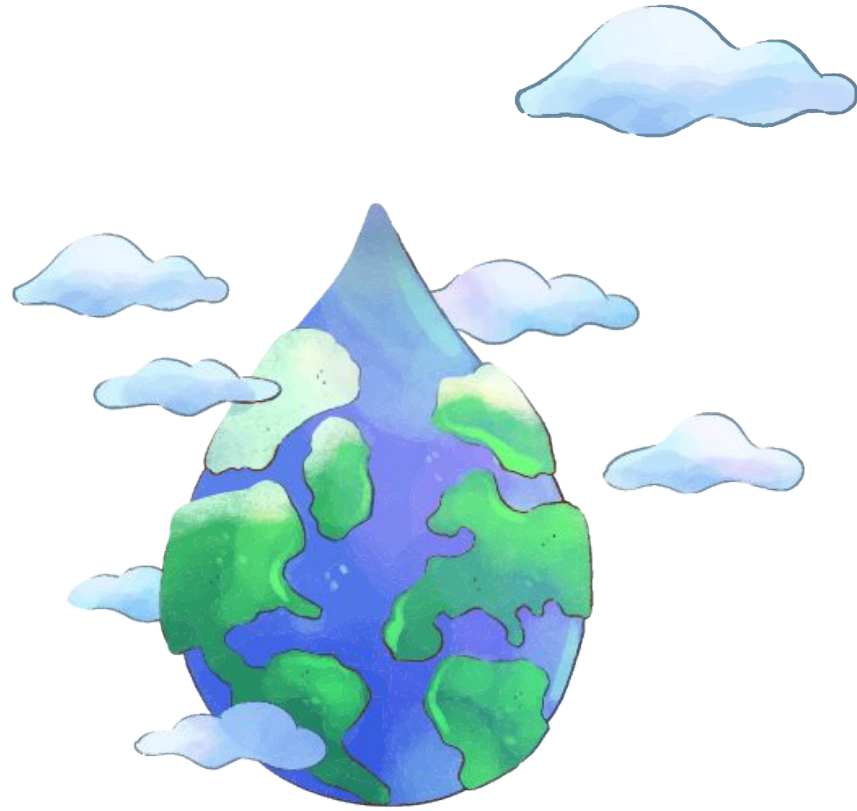


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Abstract

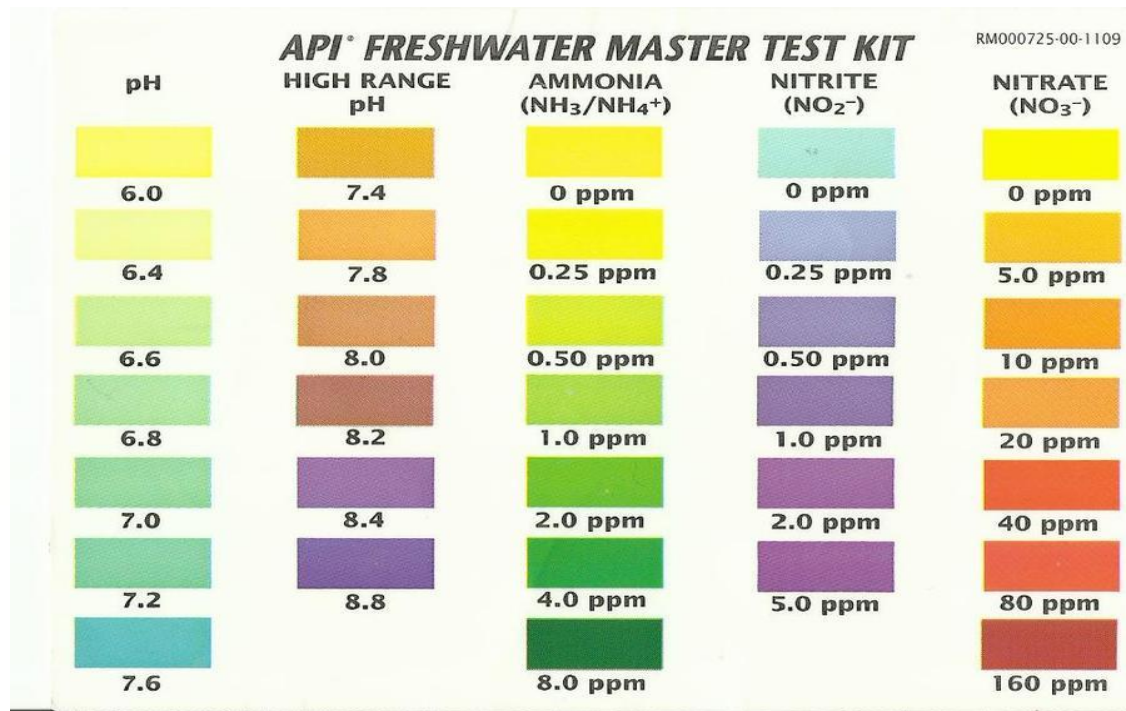
The topic we chose to research was the water quality from different bodies of water. We took beach water, bottled water, and fountain water. Our result differed from when we first tested the water originally. We found out that the more time you let the water develop, the darker it got; from when we first tested it. When we tested the water we compared them to each other, we found that there was some similarities from the same group. Most of the the results were that the colors came out very bright and a few days later the colors got darker.



Methods

We collected our data by using different bodies of water. To test the water we used the API Freshwater Master Test Kit (water testing kit). We checked each water sample for its level of pH, ammonia, nitrite, and nitrate. We tested our four water samples (Pure life, Aquafina, filtered water fountain, and beach water) by transferring five milliliters of the sample into a beaker, by using a pipette. We then poured the testing solutions into the water as followed the instructions precisely to get valid results. Before testing a different water sample we would wash off/ and dry the pipette to not get any contamination. We examined how each water sample changed over time. We noticed that as time went on, each sample got darker within the length of two weeks.





Water color chart

What tests will be done



PH

PH stands for “Potential Hydration”

This measures the acidity of substances.

The level of PH 7 is a neutral level, but anything low means it contains high levels of acid, and a higher level than 7 means that it is very alkaline which is that it has a high range of chemicals, minerals, and ect.



Nitrite

Nitrite is salt or ester anion of nitrous acid. It can inhibit bacteria. Low levels of nitrite are superior to have because high levels are toxic to humans and animals.



Ammonia

Ammonia is Nitrogen, that appears to be in aquatic environments. Ammonia is not toxic for humans, but is for animals.



Nitrate

Nitrate is excess of rain water, which pollutes groundwater. Nitrate is conformed of nitrogen which can be dangerous to our health

Water Samples



Beach Water

Location: Iggy's Oakland Beach
4:25 pm May 17,
Sunny Outside- 69 degrees



Filtered Fountain

Location: Nathan Bishop Middle School
New filtered Fountain



Aquafina

Location: Nathan Bishop Middle School
Mr. Belise room (Math class)



Pure Life

Location: Ashly's House, It's
cool/warm sometimes
(We bought it from BJ's)



Results :





Data we collected

PH

Ammonia

Nitrite

Nitrate



7.2

2.0 ppm

0 ppm

0 ppm



7.6+
(Went darker
than the chart)

0.25 ppm

0 ppm

0 ppm



6.0

0.25 ppm

0 ppm

0 ppm



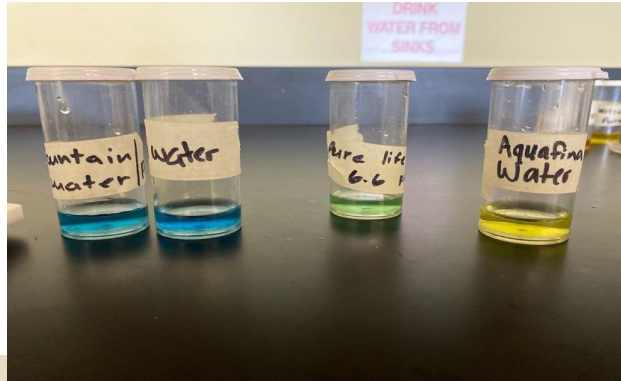
6.6

0.25 ppm

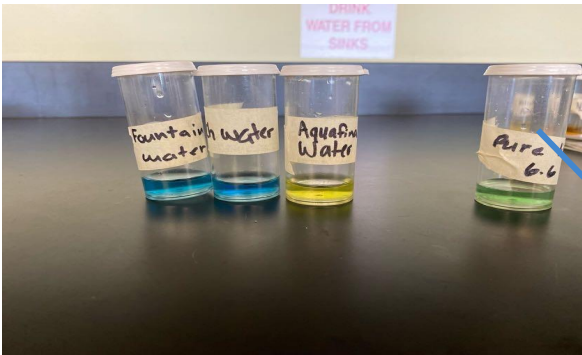
0 ppm

0 ppm- 5.0ppm
(It came back too dark to
be 0 ppm but a little light
to be 5.0 ppm)

WHAT WE FOUND: PH



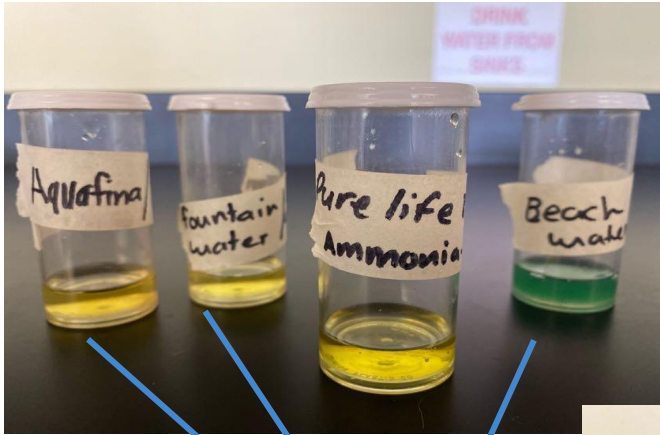
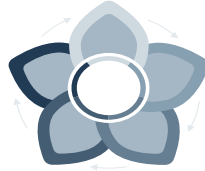
The two blue ones are beach water and filtered fountain water, and the yellow one is Aquafina after sitting for two weeks.



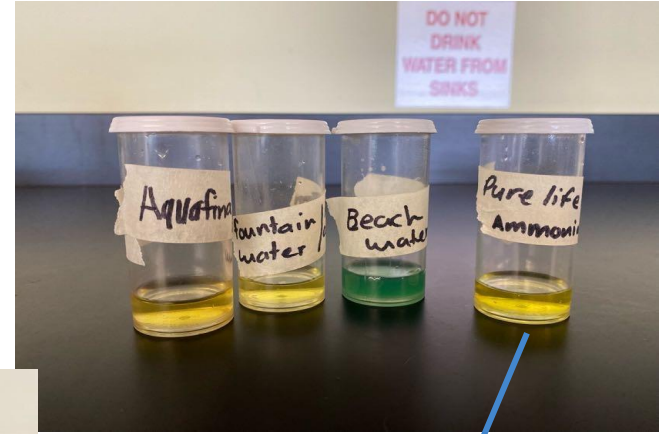
We tested Pure Life two weeks after the rest.



WHAT WE FOUND: AMMONIA



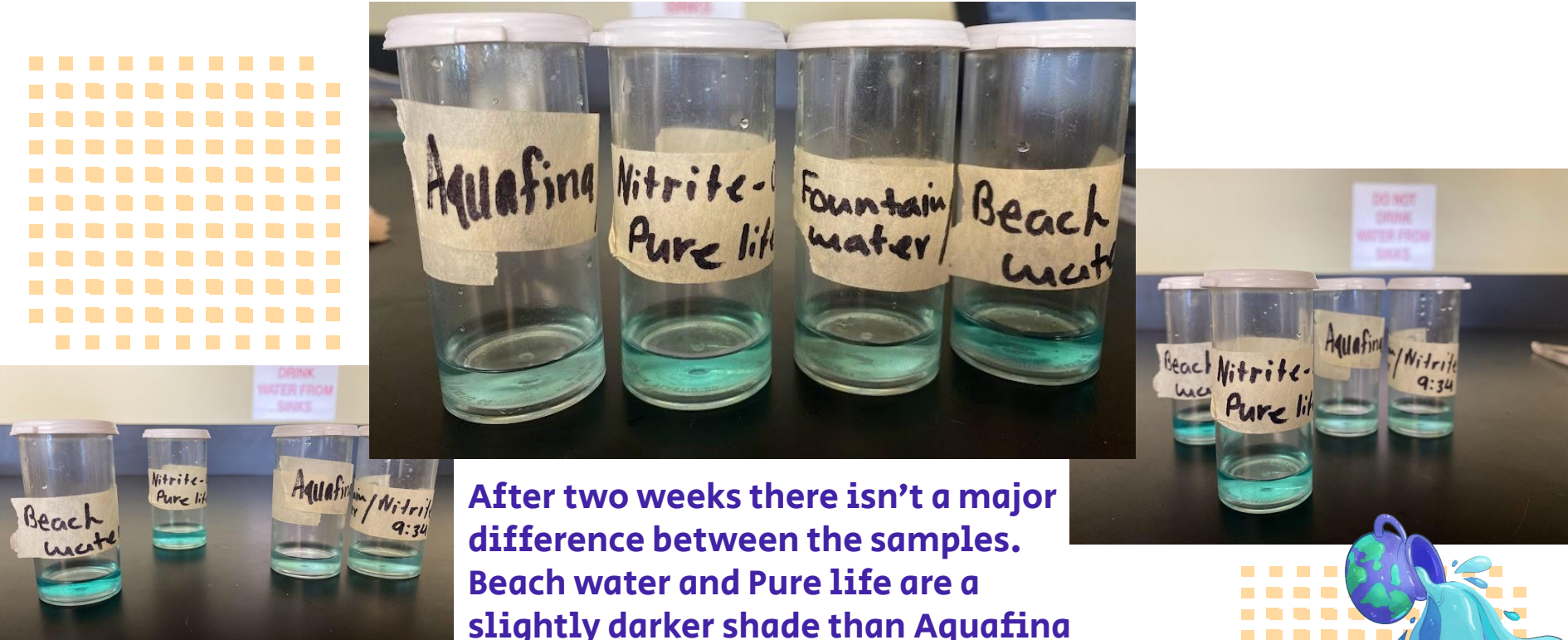
The two yellow ones are Aquafina and Filtered Fountain water, and the green one is Beach Water.



We tested Pure Life two weeks after the rest.



WHAT WE FOUND: NITRITE

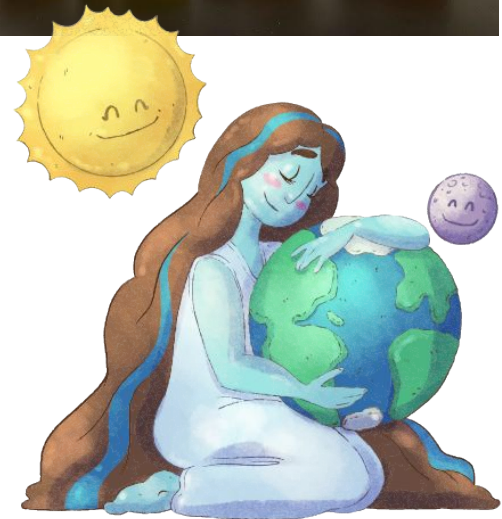


After two weeks there isn't a major difference between the samples. Beach water and Pure life are a slightly darker shade than Aquafina and the filtered fountain water.



WHAT WE FOUND: NITRATE

There is a change from letting the water sit for two weeks, and when it was first tested. The Pure Life water which is the lightest was tested the most recent which is why it is the lightest version. The others have been left untouched developing its color.



RESULT SUMMARY

What we gathered from our results was that for the test of PH we found that after two weeks the beach water and filtered fountain water were the most alike, and the Aquafina and Pure life, were the most different. For the test of Ammonia we saw that Aquafina water, Filtered fountain water, and pure life water, were all 0.25 ppm, but the beach water was 2.0 ppm. The results for the Nitrite test were pretty surprising because even after two weeks of being let sit all the results came back the same as 0 ppm. Lastly for the Nitrate test we saw a major difference between the most recent test (Pure Life) and the Aquafina, Beach water, and Filtered fountain water; we depicted that when we first tested them they were all 0 ppm like Pure life, but since the two weeks they have gotten darker within time. In conclusion, we found that over time water results change the longer you let them wait/ dissolve into the water more.



References and Acknowledgments

Our group includes Faith Zweh, Ashly Lemus, and Elizabeth Jimenez. We all shared an equal amount of time on this project and worked together as a team. An acknowledgement that we all made was that testing different water samples took time, and an effort because you had to stay organized, if not the results would not be accurate. We had the help of the science team that came out of their day to provide for us to do well. We used the API Freshwater Master Test Kit and the color chart to get our results.





Thanks!

Thank you, this preston wouldn't have been able to be done without the help of the science crew.
Ashly Lemus, Elizabeth JIMENEZ, Faith Zweh:
GLOBE Research Project:Water Project

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