

Which water is really the best for drinking?

KG

Introduction

For this lab, I tested the pH level of 5 different samples of water. I tested bottled water purchased in Northbrook, along with tap water from Northbrook. I also tested the water from Whole Foods in Chicago. Given my recent travel schedule, I was also able to test water in Puerto Rico, including tap water and water from the Bioluminescent Bay. It is important to test the PH level for multiple reasons. The first reason is to make sure that the water is safe to drink. If it is too acidic or too basic, it could severely damage the human body. It is also important to recognize the differences in water regulation in different geographic areas. Water is essential to life, and it is important for people to understand about water's composition and from where water comes.

Hypothesis

I believe that the water in different areas around the world have different pH levels.

Materials

- pH test strips
 - Tylenol bottle
 - Sink
 - Bottle of water
 - Bioluminescent Bay
 - Camera
 - A Glass
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Methods

- 1- Find 5 different types of water from around you. Ex: Tap water, bottled water, pool water.
- 2- Purchase pH testing strips, that come with a pH color chart
- 3- Place about half an inch of the testing strip with the color part in the water and wait about 2 seconds.
- 4- Quickly take out the test strip and compare the color on the end to the color on the chart.

- 5- The number that the color is on the color chart is the pH level of that water.
6- Record the pH levels on a chart, showing whether it is acidic or basic.
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Results

When I first took the temperature of the water, it was 102 degrees Fahrenheit. Since the temperature was high, as soon as I placed the lid on the box, the water started evaporating and the lid started getting foggy. As time went on, the ice started melting and the lid and sides of the box started getting even foggier. About ten minutes into the experiment, the lid started getting droplets of water on top, since more and more water was evaporating. Also, the water in the box started forming little bubbles. After 15 minutes, the sides became covered in droplets of water, as did the lid. The ice continued to melt, and the water maintained the little bubbles. Finally, after 25 minutes, the water temperature increased by one degree, and the moisture on the lid and sides of the box was heaviest.

Test	Water Source	pH level	Acid or base?
1	Northbrook Tap Water from my Kitchen Sink	6	Acid
2	Downtown Tap water from Whole Foods	6	Acid
3	Bottled water (Nestle Pure Life)	5	Acid
4	Bioluminescent Bay in Puerto Rico	5	Acid
5	Puerto Rico tap water from the bathroom sink in my hotel.	6	Acid

Discussion

After I tested all the different types of water I was surprised to find that bottled water is more acidic than tap water. I have always believed bottled water is the safest, cleanest and best water to drink. Tap water, however is closer to neutral, 7 pH, which is the level where water should be. All of the water that I tested was acidic. None were neutral, which also surprised me. The error with my experiment would

be the pH testing strips, they do not differentiate between 5.1 and 5.6 it is only 1, 2, 3 and so on. I believe that water is acidic because of all the chemicals they use to make it safe and drinkable.

Conclusion

For my experiment, I tested five different types of water for their various pH levels. I discovered that tap water from Whole Foods in Chicago has the same pH level as the water in Puerto Rico. Also, the bottled water in Northbrook has the same pH level as the water in the Bioluminescent Bay in Puerto Rico. With this information, my hypothesis that water from different geographic areas had the same pH levels was incorrect, as the water from different areas had the same pH levels.
