



GESCI 110



Drop by Drop Water is Saved



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WATER COLLECTION



One of the objectives of my project is to collect and obtain drinking water in our lives. The challenge with this is that many times we waste the water we have available and we do not realize that there is less and less drinking water in Latin American countries. We can go to markets and buy large containers of water, but they can be expensive and, sometimes, there may be a shortage due to the lack of drinking water in certain cities in Latin America, which generates shortages and high demand.

I currently live in a house where I have a small garden. Because of this, I decided to start storing water in buckets, since at this time of year, it rains a lot in my country, where I can store rainwater for domestic use.

I hope to learn to be more careful with the use of drinking water and share my knowledge with my neighbors and family so that others can wisely and intelligently store water that can help in times of need. I live in Peru, so the climate helps me to be able to create a duct where the water that falls from the rain would reach and I end up storing it in a container to take advantage of it.

The stored water would help to water the plants, clean the house or even drink from it, as long as it goes through the sanitation process.

HOW WILL THE PROPER USAGE OF WATER WILL BENEFIT OUR LIVES?



It can be difficult to understand how difficult it is for so many people around the world to access water. According to the WHO, 785 million people around the world still lack access to water. Of these people, 144 million rely on surface water. Water is one of the most important physical needs among all people. Therefore, by obtaining it we can solve several needs

such as:

- Personal hygiene
- For drinking
- For washing dishes
- For cooking and for many other purposes

HOW TO FILTER RAW WATER TO MAKE IT DRINKABLE?

With the help of a filter, different elements, bacteria and rust that could be present in the water are eliminated, making it purer and of better quality for consumption.

This is also an opportunity to avoid or reduce the purchase of water in plastic containers. By using a filter with small pores to eliminate bacteria and parasites. You can use a portable water filter or make your own with a plastic bottle, cotton balls, stones and sand. After filtering, add a disinfectant such as iodine, chlorine or chlorine dioxide to eliminate the remaining bacteria and viruses.



GOSPEL CONNECTIONS

One of the things that inspired me to do this project was the official statement the church made about the importance of water conservation:

"We all have a role to play in preserving the critical resources needed to sustain life, especially water, and we invite others to join us in reducing water use wherever possible."

This inspired me to use the resources I have to be a part of caring for water, while at the same time helping my family become more self-sufficient.



PROJECT PLAN

Project steps and planned timeline:

W1: The first step was to research and design the structure of the water filter. My family helped me choose what was going to be part of the filter that is most likely to be able to trap dirt and bacteria.

W2: Then I bought the water filter supplies (cotton, stones, sand).

W2-3: I put the filter together according to the supply I had and did the first tests.

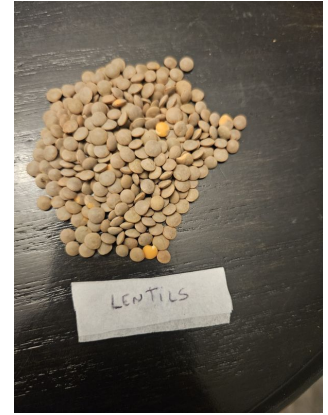
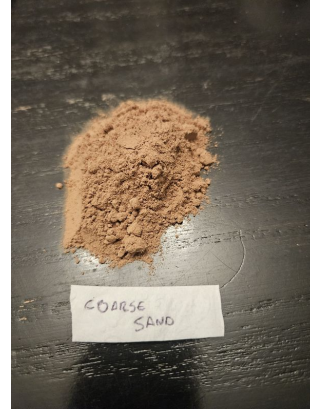
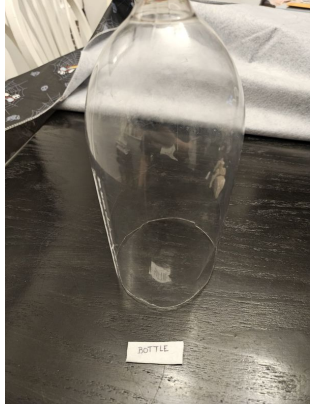
W4-6: I continued testing the filter to see how it works and how I could improve it to make it fully effective.

W7-10: Once I was able to create the right filter, it was ready to be used and put the filter into practice properly.

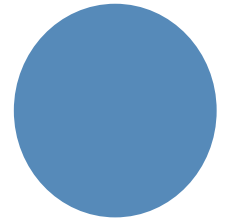
Then, my goal of this is to use the collected and previously filtered water for domestic use.



PROJECT AND PROCESS



REFLECTION



The importance of taking care of water and making good use of it is vital for our lives and for our future society. Thanks to this project I have learned to take better care of the water I consume and know that I can, as well as consume water, store it and reuse it for my own use.

Thanks to the project I felt that I was able to make an impact on my family. They had never done this project and seeing the influence that storing water and using the filter to make water for domestic use has, can be very helpful in the future when water needs to be collected naturally.

I would like to make a filter with a larger capacity for a future project to be able to store a larger amount of water.



NEXT STEPS

With this project completed, I would like to be able to create more water filters to be able to give them to people who need them.

I would like to do a future analysis in the colonies that lack drinking water to evolve the project with greater emphasis on the production of drinking water, along with the use of ozone to make the water even purer and cleaner.

In the future, I would like to be part of a great change in Peru and help vulnerable people to be able to have drinking water for their own benefit.



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