Ignacius Bryan Pradjanata 9B

LOW COST WATER FILTER

SDG 6:Clean Water And Sanitation

1.Goal

The goal is to make a low cost water filter to recycle plastic bottles and to reduce contaminated water percentage because In 2021, the UN reported that of more than 75,000 bodies of water surveyed across 89 countries, more than 40% were severely polluted. So it's unsurprising that around the world, 1 in 3 people don't have access to safe drinking water. Source:Imperial Blogs

2.Benefit

The benefit of this low cost filter are:

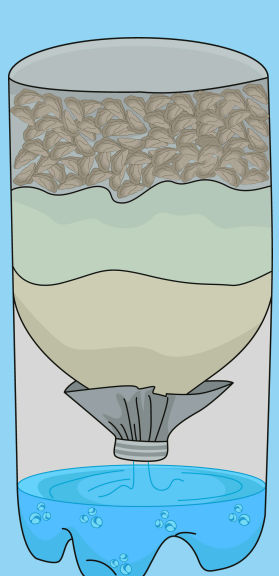
- -Provides Cleaner Water: Removes dirt, particles, and bad odors.
- Prevents Disease: Reduces the risk of illnesses like diarrhea and cholera.
- Low-Cost Solution: Made from cheap and easy materials.
- Easy to Use: Simple design that everyone can make
- -Using Recycled Materials: Using plastic bottles that can be recycled.

3.Materials

The materials consists of:
-Cutter or Scissors
-Plastic Bottle
-Sand
-Charcoal
-Cotton
-Zeolite rock or pebbles

4.Steps

The steps for making this filter are:
-Cut the plastic bottle into one quarter
-Wash the sand, charcoal, and the zeolite rock
-Put the bigger part of the bottle upside down
-Add the cotton(make sure it is pressed)
-Add the sand on top of the cotton
-Add charcoal on top of the sand
-Add zeolite rock on top of the charcoal
-Add coral chips(optional)
-Add another layer of cotton on top of the zeolite rock
-Put the smaller part of the bottle to hold the water coming from the bigger part of the bottle
-Pour dirty water and it will slowly filter



5.Results

These are the before and after results

Before

After

Conclusion: The water is more clear and it has more minerals.