

Water Purifier

Materials -

1. Gravel
2. Crushed coal
3. Cloth
4. Empty plastic bottle

Design -

We will cut off the bottom part of the plastic bottle and poke a hole in the cap. We will then line the filter with the cloth and fill it first with crushed charcoal and one last layer of gravel. With this design, we will easily be able to remove the cloth sack and replace the used materials regularly.

How it works -

The different layers of material all filter out different forms of suspended components in the water, making it safer for us to drink. However, the filter is not the final step to purifying our water. After running it through the filter, we will put the water in our solar cooker to pasteurize it, and remove parasites, bacteria, and other dissolved components in the water that cannot be removed by simply filtering it.

Design -

We will cut off the bottom part of the plastic bottle and poke a hole in the cap. We will then place the coffee filter on the bottom of the purifier (the cap area) and fill it first with crushed charcoal, then adding another layer of sand, and one last layer of gravel.

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