

Water Filter Experiment



GREEN-SCHOOLS
STAY HOME - WATER

How do we ensure the water from our taps is clean? Well the water goes through, what are called, 'treatments' before it goes to our taps. One of the treatments is called 'filtration'. In filtration, the water is put through different layers of sand. This takes out dirt from the water. You can see how this works by doing the experiment below.

Set up time: 20 minutes

Wait time: 10 minutes

What do you need?

1. A plastic bottle (or any type of funnel will work)
2. Gravel or small stones.
3. Clean sand.
4. Coffee filters, kitchen roll or a piece of cloth.
5. An elastic band



What do you do?

1. Get an adult to cut the bottle roughly in half to create a funnel out of the top and a container at the bottom.
2. Fold the kitchen roll, coffee filter or cloth a few times and tie it to the mouth of the bottle with the elastic band.
3. Put in a layer of sand into the bottle funnel, fill to about a third of it.
4. Put in a layer of gravel into the funnel about another third of it.
5. Put it into the other half of the bottle. Mouth down.
6. Fill the remaining third of the funnel with water that has soil and dirt in it.
7. Wait till the water has made its way through the filters in the bottom part.



Questions

1. Did the water come through the funnel cleaner?
2. Did you try different final filters like the coffee filter, kitchen towel, and cloth? If so, which worked best?
3. Why do you think different layers are best?

Watch this video to see the experiment done:

<https://youtu.be/6Z3JBH-Hg8w>