

Design a Water Filter Project

A **water filter** is a device that removes unwanted substances from water making it suitable to drink. You must design and build a water filter that will clean 2 types of polluted water:

***Muddy Water** - Imagine that you lived in a community where the only source of drinking water was from a muddy river, like the Red River.

***Morning Water** - This is the polluted water that we pour down the drains before we leave our homes in the morning. Bread crumbs, butter, milk, coffee, tea, jam, shampoo, soap, and toothpaste all manage to find their way down into our septic tanks and eventually into our septic fields.

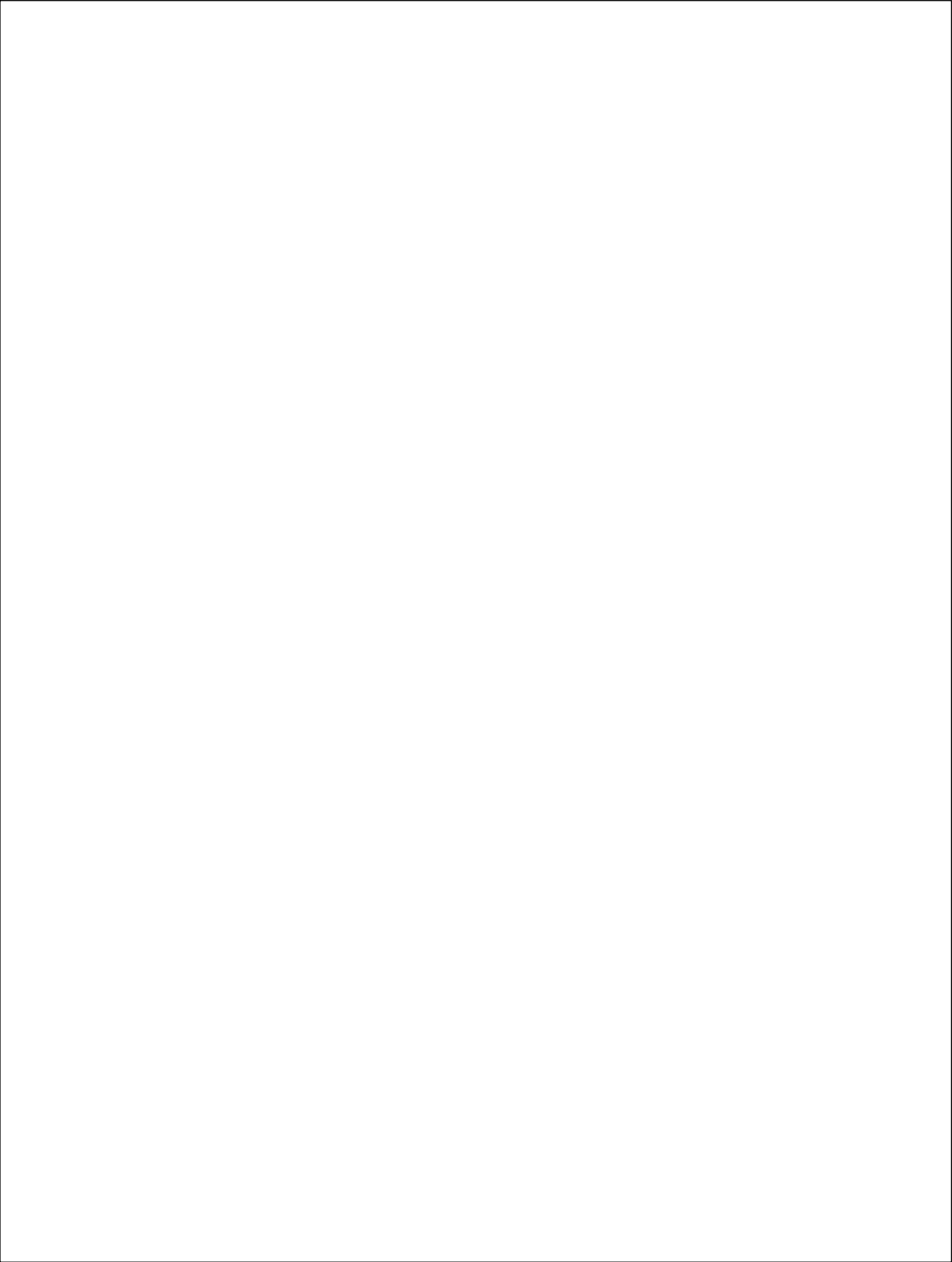
A successful filter should:

- make the water fairly clean
- should filter quickly
- should allow you to easily access the clean water
- is hand-made
- is well-built
- is portable

Procedure

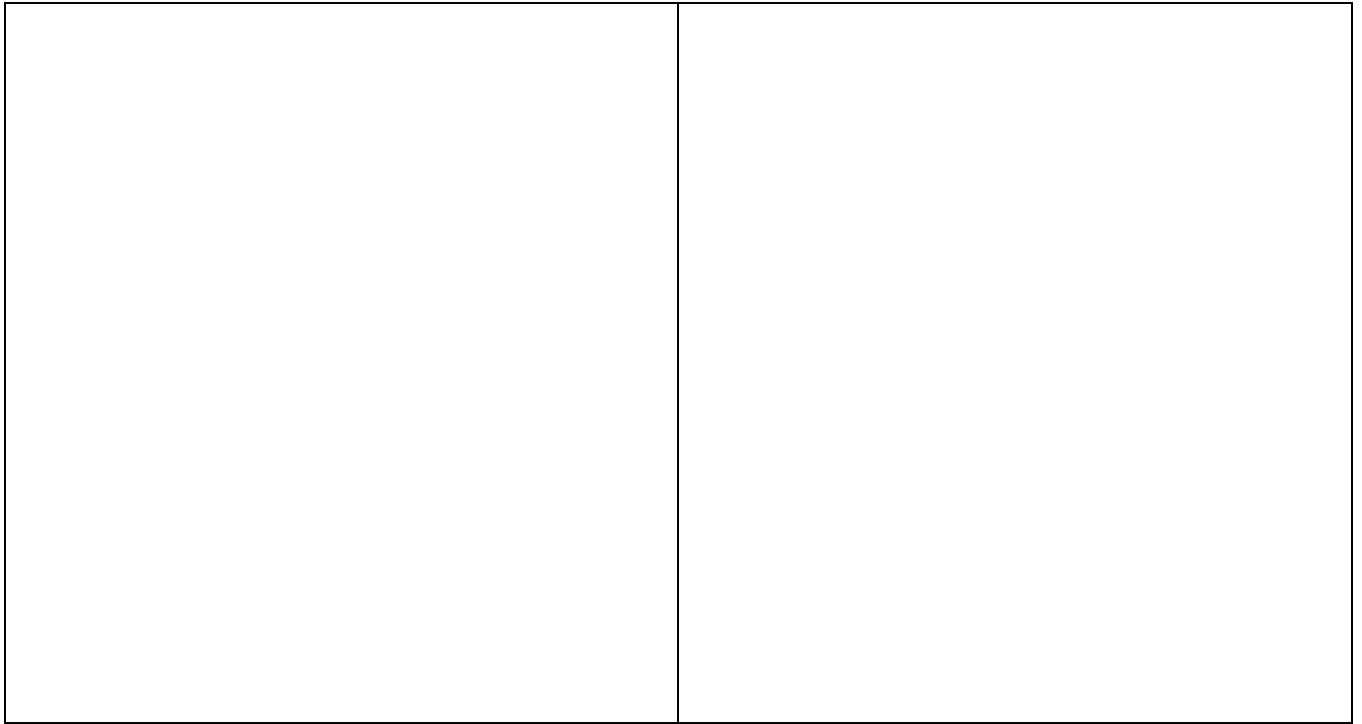
- 1) Do some research on “how to build your own water filter”. Google and You Tube this question to get some great ideas using materials that are right in your own homes.
- 2) Build your water filter. Make sure it’s well built and looks good. Draw a labelled diagram of your filter in the “diagram” section.
- 3) Make a 500 ml batch of muddy water in a clear container (water, soil, branches, grass, leaves, sand, etc...) and take a picture of it. Attach the picture to the “observations” section.
- 4) Pour this muddy water into your filter and take a picture of your cleaned water. Attach the picture to the “observations” section.
- 5) Make a 500 ml batch of morning water (water, bread crumbs, butter, milk, coffee, tea, jam, shampoo, soap, and toothpaste) and take a picture of it. Attach the picture to the “observations” section.
- 6) Pour this breakfast water into your filter and take a picture of your cleaned water. Attach the picture to the “observations” section.
- 7) Complete the “reflections” section.
- 8) Complete the “conclusion” section
- 9) Send the completed project to your teacher.

Diagram - Draw your filter and label all the parts below. It does not need to be coloured



Picture of Muddy Water (Before)

Picture of Muddy Water (After)



Picture of Morning Water (Before)

Picture of Morning Water (After)

