

Wetland

IN A BOTTLE

What do you need?

- 3 two litre bottles with the bottom removed
- 4 large glass jars
- 3 cups of sand
- 3 cups of garden soil or potting mix
- 3 cups of wetland soil with plants attached
- cheese cloth
- 3 rubber bands
- coffee grounds
- Water

Wetlands act like the kidneys of the earth, cleaning the water that flows into them. They trap sediment and soils, filter out nutrients and remove contaminants. This experiment demonstrates the filtering power of wetland soil.

Steps

1. Securely tie a square of cheese cloth to the mouth of each of the bottomless bottles using rubber bands.
2. Place each bottle upside down in the mouth of a glass jar
3. Label your jars: Jar A: control, Jar B: sand, Jar C: soil, Jar D: wetland
4. Put 2 cups of sand in the upside down bottle in jar B,
5. Put 2 cups of soil/potting mix in the upside down bottle in jar C
6. Put 2 cups of wetland soil in the upside down bottle in jar D
7. Mix your "dirty water": 8 cups of water and 5 tsp of coffee grounds. Optional: add 5 tsp dirt. Mix well.
8. Pour 2 cups of "dirty water" into jar A as a control
9. Slowly pour 2 cups of "dirty water" into each bottled substrate. Try to pour at the same speed for each.
10. Monitor the speed that the water passes through each filter by keeping notes of the time you start pouring and the time the filter stops dripping.
11. Check the colour of the filtered water during the dripping and then after letting it settle out for an hour or two.

