

Once upon a time there was a beautiful piece of land. It was almost an island, connected to the mainland by a narrow land bridge, and surrounded on three sides by a lake. The lake was filled with clear water. (Pour clear water into the jar). Fish and other aquatic life thrived in the water. The land was covered with trees and the land and the lake were filled with wildlife.

Would you want to swim in this lake?
Would you eat fish caught in this water?
Would you like to go boating in this lake?

Animal life flourished along a nearby river and the BEAVER were plentiful. A RIVER ran along one side of the land, carrying sediment with it as it flowed into the lake.

WETLANDS grew along the edges of the lake. Grasses from the wetlands sometimes washed into the lake and became food for the fish.

In the shallow water, clams and other SHELLFISH thrived.

A small group of people lived on this land, which they called Hoodland. The people were called the HOODITES. The Hoodite people fished for food and shellfish in the lake. They dumped some of their garbage near the lake. We still find the piles of the shells they left.

After many years SETTLERS from Europe came to live in the area. The settlers built a town much larger than the Hoodite villages. Some of the towns garbage was dumped into the lake. CARPENTERS built houses, farms, and stores that filled the Hoodland valley.

As the town grew, the settlers filled the wetlands to provide more land on which to build. FARMERS cut down trees to clear their fields. Without trees and wetlands to hold the soil, rain carried soil into the lake.

More and more HOUSES and shops were built, and the town of Hoodville grew into a city. Sewer pipes were constructed to remove the waste from houses and bathrooms. The sewage flowed through the pipes into the bay.

Since the wetlands had been filled in, RUNOFF water washed pollution from the streets directly into the lake.

FISHERMAN found that nets made of plastic were stronger than those made of rope. Sometimes these nets got lost in the water.

Fisherman and other BOATERS sometimes threw their rubbish overboard.

The city built LAUNDROMATS where people could wash their clothes. The detergents went down the pipes with the sewage into the lake.

People hired MERRY MAIDS to clean their houses. They used poisonous tile and drain cleaners, which flowed into the sewage system.

Even swimmers and SUN BATHERS going to enjoy the lake sometimes left garbage on its beaches.

As the city grew, SHIPS came to unload their supplies. Sometimes these ships spilled oil into the lake.

FACTORIES built along the water's edge often dumped their toxic wastes and chemicals into the water.

Would you want to swim in his lake?

Would you eat fish caught in this water?

Would you like to go boating in this lake?

Then complete the story asking:

1. Who dirtied the water?
 2. Who is responsible for cleaning it up?
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Name(s) _____

Natural Resources

Water Filtration Plan – MUST COMPLETE TODAY!

- A. Using the available equipment, devise a filtration system that you will use to clean your dirty water sample.
- i. Write out, in detailed step-by-step instructions, how you will use the lab materials to filter the water sample. (Each group should have their own set of instructions.)
 - ii. Sketch your filtration system set-up and label the parts. (Each group should have one set.)

Materials available:

Beakers
Rubber bands
Nylon mesh
Sand
Charcoal
Cotton balls
Water
Graduated cylinder
Test tubes
Ring stand
Filter paper
Dirty water (we made this yesterday in class)

Remember these are the ingredients we added yesterday:

Wood chips
Sand
Charcoal
Dry grass
Nails
Potting soil
Nylon line
Toilet paper
Colored paper
News paper
Styrofoam
Dish detergent
Baking soda
Oil
Vinegar

WHO DIRTIED THE WATER?

WHO DIRTIED THE WATER DATA TABLE

Who or what is responsible for polluting?	What contaminant is added to the water?

Day 2:

- A. Using the available equipment, devise a filtration system that you will use to clean your dirty water sample.
 - 1. Write out, in detailed step-by-step instructions, how you will use the lab materials to filter the water sample. (Each group should have one set of instructions).
 - 2. Sketch your filtration system set-up and label the parts. (Each group should have one sketch).

Day 3:

- B. Using your proposed filtration system, make your water sample as clean as you can.
- C. Make any adjustments to your model that is necessary in order to cleanse your water sample.

Name _____
Natural Resources

Water Filtration Lab Review

Homework – After completing the lab complete the following questions.

1. Was your original filtration system successful?
2. Describe any adjustments you made to your original model.
3. Were you able to remove all impurities?
4. How could you tell if your water was purified? (Hint: What physical and/or chemical changes took place that would indicate that you accomplished your goal?)