

## Lesson 5 Operation Water Pollution

### Procedure – Part 1

Water pollution is a very complex pollution in how it forms how it is cleaned up, and its capacity to spread far and wide. This activity will help you understand why water pollution is everyone's responsibility and why we should work together to fix the problem.

There are five jobs in this activity:

- a) Reader: this person is responsible for reading the procedure to the rest of the group
- b) Materials: this person is responsible for gathering all the necessary materials for the activity
- c) Chemist: this person is responsible for performing all necessary mixing during the activity
- d) Recorder: this person must record all information gathered during the activity
- e) Banker: this person has no task during this activity and will therefore assist the person responsible for materials

There are some questions that must be answered before the end of class that are related to the water pollution activity. Your group must hand in the questions and answers at the end of the lesson.

Materials needed:

- 1- 500 mL pop bottle with lid
- 1 funnel
- 200 mL water
- 1-250 mL beaker
- the pollutants your group brought

Before you begin the activity READ ALL THE STEPS!

1. Read through all the steps (1 → 9)
2. Rinse the pop bottle twice with clean water. Pour the water into the designated container.
3. Pour the 200 mL of water into the 250 mL beaker.
4. Use the TDS meter to determine the amount of total dissolved solids in the clean water sample. Record the number.
5. Use the pH meter to determine the pH of the clean water sample. Record the number.

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6. Pour the clean water from the beaker into the 500 mL pop bottle using the funnel.
7. One at a time, add the pollutants your group brought. Record all observations including any mixing, separation, floating of the pollutants with the water. Measure and record pH and TDS after each addition.
8. Put the lid on the pop bottle and tighten. When the lid is on gently shake the bottle to combine the pollutants. Observe and record how the pollutants mix with the water.
9. Label the bottle with your group members and let it stand off to the side. Observe and record what happens as the water begins to “relax”.

You only have 25 minutes to complete this activity so work together to get it done.