



The Solution to Water Pollution

Lesson 1: Watching Wastewater

Background

Wastewater is water that has been used or affected by people. Wastewater is generated in places like homes, restaurants, schools, hospitals, and industries. It includes used water from sinks, tubs, toilets, washing machines, floor drains, and industrial process pipes. Run-off from streets and sidewalks after heavy rain or from melting snow is another type of wastewater called stormwater. Do you know where wastewater goes once it heads down the drain? Do you know how wastewater is treated before it goes back into your environment?

Key Concepts

- Learning the different sources of wastewater
- What should and should not go down the drain
- Learning what happens during the different stages of wastewater treatment (headworks room, clarifier, UV disinfection, sludge holding tank)

Curriculum Objectives

- **Grade 7 Science**
SCO 7: Students will be expected to identify and explain examples of mixtures and solutions that have an impact on development in science, technology, and the environment
- **Grade 8 English**
SCO 8.4: Students will be expected to use various forms of note-making for different purposes and situations
- **Grade 8 English**
SCO 1.5: Students will be expected to listen to others closely and identify the key points of their messages; evaluate the relevance of the common details

Supplies

- Computer with internet access and an overhead projector (or large screen)
- DVD copy or direct URL link to “The Solution to Water Pollution” video (<http://youtu.be/KZefzz6nx14>)
- Copies of “The Solution to Water Pollution Video Worksheet”

Overview

Time Line: This activity will take approximately 20-25 minutes to complete.

Students will be asked, “What is wastewater?” and discuss their ideas. They will then watch a brief video created by ACAP Cape Breton that explains the significance of wastewater and wastewater treatment in the CBRM. After the video, students will complete a video worksheet to demonstrate what they have learned.

Lesson Plan

5 min	Ask What is wastewater? Where does wastewater come from? How do we create wastewater? Where does it go? Emphasize that any water that is affected by human activity is wastewater; even clean water that goes down the drain is considered wastewater. This directly ties in to why it’s import to conserve water.
10 min	Watch: <i>The Solution to Water Pollution video</i> (approx. 8 minutes) Give students copies of the video worksheet prior to starting the video. Watch as a class. A second viewing may be required.
5-10 min	Worksheet: <i>The Solution to Water Pollution Video Worksheet</i> Allow students time to finish the worksheet. Depending on the class, they may work in pairs or small groups to come up with their answers. Alternatively: Discuss the questions orally as a class and watch key segments of the video again for clarification.

Solution to Water Pollution: Video Worksheet

Name: _____ Date: _____

1. What is wastewater?

2. How many sources of wastewater can you name?

3. What percentage of wastewater is water, and what percentage is waste?

_____ % water _____ % waste

4. Give examples of some things that should and should not go down the drain.

[illegible]

5. Explain what happens in each of the rooms/stages of wastewater treatment process at the Batter Point Treatment Plant.

Headworks Room	Clarifier
UV Disinfection	Sludge Holding Tank

If you need to, use this space to take notes while watching the video:

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