

WASTEWATER LESSONS

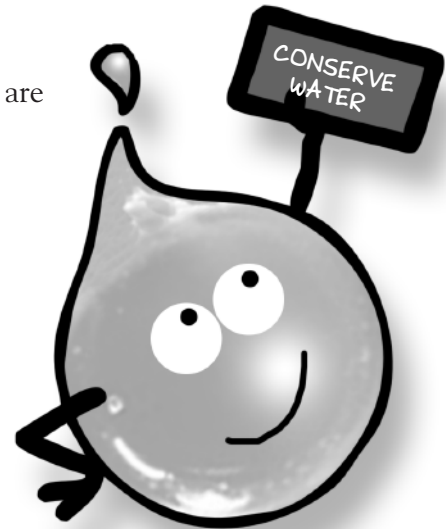
The following four lessons have been developed to use with students before and after their tour of the San Jose Creek Water Reclamation Plant or another wastewater treatment facility.

- Lessons 1 and 2 are to be conducted before students take the tour.
- Lessons 3 and 4 should be conducted after the tour.

The goal is for students to understand how much wastewater they create, how that wastewater is treated, and what they can do to conserve water and to help keep it clean.

The concepts that students will learn include:

- How the hydrologic cycle works
- How much fresh water is available on Earth
- How much water we use for various activities on a daily basis
- How water is cleaned in nature
- How wastewater is cleaned at treatment plants
- What a watershed is
- What point source pollution and nonpoint source pollution are
- What the causes and effects are of various water pollution
- What recycled water can be used for
- How to conserve water



An outline overviewing all four lessons is shown on the following page.

WASTEWATER LESSONS OVERVIEW

| | | |
|--------------------------------------|---|-----------|
| Lesson 1: <i>Pre-Tour</i> | WATER YOU NEED | 41 |
| | I. Review the hydrologic cycle | |
| | II. Demonstrate fresh water availability | |
| | III. Determine personal water use | |
| | Extensions | |
| | Background Information | |
| | Masters | |
| | - <i>Water You Use</i> | |
| Lesson 2: <i>Pre-Tour</i> | TRICK OR TREATMENT | 49 |
| | I. Discuss what goes down the drain | |
| | II. Clean wastewater | |
| | III. Discuss what shouldn't go down the drain | |
| | IV. Prepare for field trip | |
| | Extensions | |
| | Background Information | |
| | Masters | |
| | - <i>Cleaning Wastewater Worksheet</i> | |
| Lesson 3: <i>Post-Tour</i> | WATER ON THE ROAD | 57 |
| | I. Demonstrate a watershed | |
| | II. Survey your watershed | |
| | III. Perform water quality test | |
| | Extensions | |
| | Background Information | |
| | Masters | |
| | - <i>Pollution Sources in a Watershed</i> | |
| Lesson 4: <i>Post-Tour</i> | USE AND REUSE | 65 |
| | I. Calculate water use | |
| | II. Demonstrate and discuss reclamation/recycling | |
| | III. Plan ways to conserve water | |
| | Extensions | |
| | Background Information | |
| | Masters | |
| | - <i>Water You Can Save</i> | |