

Title: It's Time to Conserve

Source: The Water Sourcebook Series, U.S. Environmental Protection Agency

Subject(s): Language Arts, Visual Arts

Grade(s): K-2

Objectives: Students will create posters on how to conserve water in the classroom. Students will be able to tell or write ways to conserve water at home. They will learn the terms: conserve, hydrologists, and hydrology.

Summary: After discussing the importance of conserving water at school, the will make up a list of ways to conserve water in the classroom. Using the list as a guide, students will create posters to display as reminders in appropriate areas of the classroom. Students can add to these posters as they come up with more ideas. With the help of their parents, students will complete a worksheet of ways to conserve water at home. As an extension the teacher may choose to create a weekly classroom job of "hydrologist" and have students decide the role this person would play.

Extension: Invite a guest speaker from the Atlanta Department of Watershed Management to help explain the importance of water conservation and ways to conserve water at school and at home.

Standards: VAKMC1. VA1MC1. VA2MC1. The student engages in the creative process to generate and visualize ideas.

VAKMC3. VA1MC3. VA2MC3. The student selects and uses subject matter, symbols, and/or ideas to communicate meaning.

VAKCO12. VA1CO12. VA2CO12. The student applies information from other disciplines to enhance the understanding and production of artworks.

ELAKR5. ELA1R5. ELA2R3. The student acquires and uses grade-level words to communicate effectively.

# IT'S TIME TO CONSERVE

K-2

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## OBJECTIVES

At the end of this lesson, the students shall be able to do the following:

1. Design (draw) posters on 8" x 10" paper for water conservation in the classroom;
2. Tell or write ways to conserve water around the home; and
3. Give an oral or written definition of the new terms: conserve, hydrologists, and hydrology.

### **SUBJECTS:**

Science, Social Studies, Math

### **TIME:**

30 minutes over a 2-day period

### **MATERIALS:**

bucket  
8" x 10" paper  
pencils  
crayons

## BACKGROUND INFORMATION

Water is absolutely essential for life. All living things require water for survival. Water is one of our most precious resources and because of its importance in our lives, we must learn to respect it. Therefore, the practice of water conservation is an important concept to teach young children. The first step in teaching young children how to conserve water is helping them become aware of where water is used and how much water is used in daily living.

This lesson will help young children become aware of our limited supply of available fresh water. Much of this supply is found beneath the Earth's surface as groundwater. The lesson will help young children understand the impact we can have on the fresh water supply if we all conserve water by changing the lifestyle we have become accustomed to which depends heavily upon having plenty of clean water. Although there is plenty of water on Earth, it is not always available in sufficient quantity. Sometimes the quality is not adequate either. There is increasing evidence of chemical wastes improperly discarded in the past which are showing up in our water supplies today. The impact of everyone conserving water at home could mean the difference in health and the economic effects of a shortage of clean water in the future. There are many inexpensive ways to reduce water usage in and around school and home. We all need to practice conservation of water for a better future. See attached sheet for "Ways to Conserve Water."

### Terms

**conserve:** to preserve and protect a natural resource from wasteful use.

**hydrologist:** a person that applies scientific knowledge and mathematical principles to solve water-related problems in society such as problems of quantity, quality, and availability.

**hydrology:** the science that encompasses the occurrence, distribution, movement, and properties of waters of the Earth and their relationship with the environment.

## ADVANCE PREPARATION

- A. Read the list of “Ways to Conserve Water.” Explain that, during times of drought, groundwater supplies dry up. These take years to replace.
- B. Copy “It’s Time to Conserve” for each student after the sheets have been completed with the students’ suggestions.

## PROCEDURE

### I. Setting the stage

- A. Discuss the importance of conserving water at school. Ask students how they could conserve water around school. Have students help make a list of ways to conserve water and write their comments on the board or chart paper. Some suggestions: check water sources for leaks or drips; catch used drinking water to water plants; rinse paint brushes; and install water-saving devices for general washing duties in the classroom.

### II. Activities

- A. Using the list of ways to conserve water as suggested by the students, have students make 8” x 10” posters to display as reminders. For example if students have suggested cleaning out a classroom pet’s cage once a week and using “used drinking water” for cleaning, have them or an adult write this on a poster or posters, then draw a picture or pictures. Display the poster in the location of the pet.
- B. As the year progresses, students may think of other ways to conserve water. This is a good opportunity for students to make additional posters and display them. This is an ongoing process and may be continued throughout the year.
- C. If you have students from rural communities, some may get their water directly from wells or springs. How do they safeguard their water supply?

### III. Follow-Up

- A. Discuss how families can conserve water around the home. Suggest ways from the “Ways to Conserve Water” sheet attached. Write students’ suggestions on the board or chart paper.
- B. Complete the “It’s Time to Conserve” form by writing students’ suggestions in the “Practice of Water Conservation” section. Have students draw pictures in the “Pictures of Practice” section to help them remember each suggestion. Each student will take his/her list home and have it completed with the help of their parents. Students will check in the section

“Practice we plan to use” section the practices they were able to complete at home and plan to use in the future.

- C. When students return their completed lists, discuss what they found around the home and what they accomplished.

#### IV. Extensions

- A. Create a weekly classroom job of Hydrologist. Explain the important role this person would play in the classroom, and have the students decide what this person might do.
- B. If a leaky faucet is found in the school, have the students test how much water is leaking from the faucet. Set a bucket under the leak and catch the water that leaks for one hour or one minute depending on the leak. A faucet leaking 100 drops per minute can waste 350 gallons of water each month. Help students to determine how much water is being wasted each day or each year from the leak.

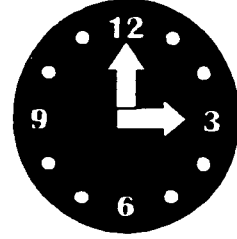
## RESOURCES

Carroll, Jack, Water Conservation Checklist For the Home, Mississippi Cooperative Extension Service, Mississippi State University, Mississippi, 1989.

Owen, Oliver S., Natural Resource Conservation: An Ecological Approach, Macmillan Publishing Company, New York, 1985.

# Ways to Conserve Water

1. **Inspect the plumbing system to see that there are no leaks and replace all rubber washers every 6 months.**
2. **Turn off all water if the building or residence is vacant for an extended period of time.**
3. **Never use toilets as trash baskets for facial tissue. Each flush uses 5-7 gallons of water.**
4. **Check to see how often water softening equipment regenerates and backwashes.**
5. **Wait until there is a full load for washing clothes or dishes in machines.**
6. **Set water level on machines at the lowest level possible.**
7. **Use energy saving levels as often as possible on washing machines and dishwashers.**
8. **Change into play clothes after school so that school clothes may be worn several times before washing.**
9. **Urge family members to take showers instead of tub baths.**
10. **Fit shower heads with flow restrictors or low-volume heads to use less water.**
11. **Limit showers to 2 to 5 minutes and keep water level at 5 inches of water for a tub bath.**
12. **Turn off shower water while applying soap to the body or while lathering hair with shampoo.**
13. **Use a pan of water when peeling and cleaning vegetables and fruits rather than letting the tap water run.**
14. **Limit the use of the garbage disposal to once per meal or use the disposal even less by saving food scraps for a compost pile.**
15. **Use the smallest amount of water necessary to cook vegetables and stews. It preserves nutrients as well as saves water.**
16. **Use tight-fitting lids on pans to prevent water from boiling away and also to cook food faster.**
17. **Wipe up small spills as they occur to avoid frequent mopping.**
18. **Do household cleaning chores together to save water.**
19. **Wash the car less often or take advantage of a spring rain to wash the car.**
20. **When washing the car, turn off the water while soaping.**
21. **Cover the pool when it is not being used to prevent evaporation.**
22. **Clean the pool filter often to keep from replacing the water as often.**
23. **Use a broom, not a hose, to sweep the garage, sidewalks, and driveway.**
24. **Install any water-saving devices that may be available in your area.**
25. **Put water-filled plastic bottles in the tank of all toilets to save water during flushes.**



# It's Time to Conserve

Practice of water conservation	Picture of practice	Practice we plan to use (check)
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