



## Conserving Water through Art!

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### INTRODUCTION

In this lesson, students will learn about the scarcity of water and begin to think of ways that they can conserve water in their own homes. They will make a pledge to personally use less water, and will use their creativity to make items that will remind them to conserve in their home.

### LESSON OVERVIEW

**Grade Level and Subject:** K-4: Art and Social Studies

**Length:** One class period (45 minutes- 1 hour)

**Objectives:**

After completing this lesson students will be able to:

- Understand the scarcity of water
- Give examples of ways to conserve water
- Apply their knowledge in a creative way through art

**National Standards Addressed:**

This lesson addresses the following National Education Standards<sup>1</sup>:

- **Content Standard:** [NA-VA.K-4.1 UNDERSTANDING AND APPLYING MEDIA, TECHNIQUES, AND PROCESSES](#)
  - Students know the differences between materials, techniques, and processes
  - Students describe how different materials, techniques, and processes cause different responses
  - Students use different media, techniques, and processes to communicate ideas, experiences, and stories
  - Students use art materials and tools in a safe and responsible manner
- **Content Standard:** [NA-VA.K-4.6 MAKING CONNECTIONS BETWEEN VISUAL ARTS AND OTHER DISCIPLINES](#)
  - Students understand and use similarities and differences between characteristics of the visual arts and other arts disciplines
  - Students identify connections between the visual arts and other disciplines in the curriculum

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<sup>1</sup> Education World (2008) *U.S. National Education Standards*. Retrieved February 17, 2009, from <http://www.education-world.com/standards/national/index.shtml>.

- **Content Standard:** [NSS-G.K-12.5 ENVIRONMENT AND SOCIETY](#)

As a result of activities in grades K-12, all students should

- Understand how physical systems affect human systems.
- Understand the changes that occur in the meaning, use, distribution, and importance of resources.
- Understand how human actions modify the physical environment.

**Materials Needed:**

- Chalkboard, whiteboard or equivalent
- **Reproducible #1- How Much of Earth's Water Can We Use?**
- 1 clean jar or container for each student (glass, plastic, other)
- Craft items to decorate the jars (i.e. felt, puffy paint, stickers, glitter, pipe cleaners, paper, etc.)
- Glue
- Large paper banner
- Markers, paint, or paper to make hand-prints with
- Chalkboard or equivalent

**Assessment:**

Students will be assessed through the following activities:

- Participation and attentiveness
- Completion of their craft

## LESSON BACKGROUND

**Relevant Vocabulary:**

- **Conservation:** Preservation and protection of materials or resources
- **Scarcity:** Deficient amount of something to meet the demands; not plentiful or abundant

**Information:**

Water is one of earth's most valuable resources, and one of its most scarce. Out of the earth's total supply of water, 97% is salt water and only 3% is fresh water. Furthermore, the amount of fresh water trapped in glaciers and icecaps is 2.2%, leaving only 0.8% of the earth's total water available for everyday human use.

The water that is available for humans needs to be shared by everyone in the world, and therefore it is important not to waste it. Many areas in the world do not have access to safe, clean drinking water like we do, making the United States a pretty lucky place to live! Simple steps such as turning off the faucet and taking shorter showers can help to conserve the amount of water we use, so that we do not waste such a precious resource.

**Resources:**

Earth Day Network (2009) Global Water Network: Retrieved February 17, 2009 from <http://www.globalwaternet.org/>

Information on water all across the world:

National Geographic (2009) *Signs and Solutions*. Retrieved January 27, 2009 from <http://www.nationalgeographic.com/signsandsolutions>

## LESSON STEPS

### Warm-up: *How much water do you use a day?*

1. Begin by discussing with students how they use water in their daily lives. Have them list the things that they use water for and write them on the board as they are mentioned (*wash hands, brush teeth, water the plants, take a shower, do the dishes, drink water, flush toilet, do laundry, fill fish tank, water lawn, cooking, cleaning, etc.*).
2. Also ask students to name other places besides their home where water is used. Have them think about how they are connected to those places (i.e. *farmers water crops and animals for their food, coal plants use it to create energy, sanitation plants use it to create clean tap water, factories use water manufacturing and cooling, etc.*)

### Activity One: *Discovering the Scarcity of Water*

1. Use the pie chart in **Reproducible #1- How Much of Earth's Water Can We Use?** to explain to students how little of Earth's water is available for human use. (*97% is salt water, 2% is fresh water trapped in glaciers and less than 1% is available fresh water*). Use a projector, or print at least one copy per table so everyone can see.
2. Talk with students about the importance of conserving water since the entire world needs to share the small amount available. Emphasize that it is important not to waste water because there is a limited amount available and we do not want to run out.

### Activity Two: *Making a Group Pledge*

1. Have a discussion with students about what they can do to conserve water. Brainstorm in general, or refer to the water uses listed previously on the board and try to think of one way to reduce for each use (*turn off the faucet while brushing teeth, water plants with water left over from cooking, take shorter showers or take baths instead of showers, etc.*).
2. Using the large paper banner, have students think of a pledge that they all want to make together concerning their water use. This could be very broad such as, "We pledge to use less water at home and school," or it could be specific such as, "We pledge to turn off the water when we brush our teeth." Write the pledge in the center of the banner.
3. Have each student either trace, paint, or cut out and paste a copy of their hand and have them write or sign their name on/next to their handprints on the pledge banner. Hang it in the hallway so other classrooms can see and learn from it.

### **Activity Three: *Creating a Personal Reminder***

1. Pass out a jar to each student and place all craft materials out for them to use.
2. Explain that the jar will be used as a toothbrush holder to be placed next to the sink as an everyday reminder to turn off the water when not in use. Have them decorate the jar with the craft materials, focusing on water as their inspiration. They should create something that will remind them to turn off the faucet when not in use.

### **Wrap-Up: *Discussion***

1. To test students' understanding, ask them why water is so scarce and why it is important to conserve it. Discuss with them ways that they are going to go home that night and use less water. Also encourage them to share their ideas with their family members and to show them their new toothbrush holder.

### **Extension: *Spreading the Word***

As an extension activity, have students create posters about water conservation that encourage other students not to waste and place them around the school (*in other classrooms, in the bathroom, in the cafeteria, near the drinking fountains, etc.*). They can also visit other classrooms and encourage them to make a pledge banner like they did, hanging it up in the hallway for everyone to see.

## **CONCLUSION**

Through the use of creativity and art, students will learn about the scarcity of water and why it is important to conserve, and will remind themselves to do this at home. They will also learn how they can conserve water in their own homes and encourage others to do the same.

## How Much of Earth's Water Can We Use?



Source: Rocky Mountain Institute. Retrieved February 17, 2009 from <http://rmi.org/sitepages/pid306.php>