

# DROPS OF KNOWLEDGE FOR RIVERS OF CHANGE



GLOBAL TEACHING  
AND LEARNING MATERIAL

A hands-on guide to teaching  
and learning about  
water, sanitation, hygiene,  
and the environment

SWAROVSKI  
WATERSCHOOL

## ACTIVITY 8.4

**ACTIVITY 8.4: WATER AVAILABILITY**

In many countries, young children, especially girls, are responsible for collecting water, and often carry large amounts in a pot or bucket on their head. Pots can weigh up to 20 kilograms (44 pounds). Carrying water is not only hard work, but also takes a lot of time. One of the most serious effects is that girls who have to fetch water may not have time to attend school. As noted in UNESCO's 2015 report, "Long distances to travel and the lack of good water and sanitation in schools disproportionately impact girls' chances of staying and completing their education. A one hour reduction in the time spent walking to a water source increases girls' enrolment by eighteen to nineteen per cent (18–19%) in Pakistan and eight to nine per cent (8–9%) in Yemen."<sup>46</sup>



WATER

This activity is designed to help students in industrialized countries understand the value of access to safe water for family use and help them understand, through role-play, the importance of water in our lives. In the activity steps, the questions for teachers to ask appear in quote marks, and answers or stage directions are enclosed in brackets.

**Time:** 50 minutes / **Thematic Areas:** Mathematics, Drama, Environmental Education / **Goal for Learning:** Gain an understanding of the value of water and be able to act accordingly.



**Materials:**  One 3.8-liter (1-gallon) water jug /  A sink with taps

**ACTIVITY STEPS:**

- 1 Begin by asking the following questions: "Have you used any water today? If so, how did you use the water?" Make a list of the responses. Remember to include all water use, including water used for pets and plants.

<sup>46</sup> UNESCO, EFA Global Monitoring Report: Gender and EFA 2000–2015 – Achievements and Challenges (Gender Summary), Paris: United Nations Educational, Scientific and Cultural Organization, 2015, p. 4. Available at: <http://unesdoc.unesco.org/images/0023/002348/234809E.pdf>.

- 2 Hold up the filled water jug and ask, “How many liters (or gallons) of water do you think you use each day?” Let students guess, and note what figures they come up with for their total daily water use.
- 3 Discuss how much water each activity actually uses. For example, a 10-minute shower uses about 189 liters (50 gallons), one flush of the toilet averages 11–18 liters (3–5 gallons), and brushing teeth with the water running uses about 57 liters (15 gallons). Review with the group their estimates of personal water use. If the numbers are close to 380 liters (100 gallons) a day, they are correct.
- 4 “How do we get our water at home?” [Turn the tap.] Demonstrate the simplicity of this action. Ask your students to imagine living in a place where people cannot simply turn on the tap and get clean water. Where would their water come from? [From a local well or a stream.]
- 5 Pretend to go outside to a local well for water. “What is a well?” Use the example of digging a hole in the sand at the beach and having it fill with water as an illustration of a well. “What will you need to bring with you?” [A bucket, a lantern at night, and warm clothing during the winter.] “Now, we get ready to go fetch water!” [The role-play begins. All students can participate or one or two students can act it out in front of the class.]
- 6 Have students walk for about 5 or 10 minutes to the ‘well.’ “Walk to the well, set down your lantern and bucket, and lower the well bucket to get water. Hoist the full bucket and empty it into the bucket you will carry home. Carry the bucket carefully. Why?” [You do not want to spill any water.] Have students carry the full bucket back.
- 7 “Bring the bucket inside and lift it onto a table. How did that feel?” [Heavy, a lot of work.] “Imagine having to gather water that way all the time. Think about having to carry that water 2 miles or more. How would you feel about this water?” [That the water is valuable, important, needs protection.] “Would you be careful with the water you use at home, or would you waste it?” [Careful, because you would not want to have to gather more water unnecessarily.]

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- 8 “How much does water weigh?” Pass around the jug of water, and ask students to estimate its weight. A liter of pure water, without any sediment that might come from a surface water source, weighs around 1 kilogram (a gallon of water weighs around 8 pounds). “How much would an 18-liter (5-gallon) bucket weigh?”

**OBSERVATION AND DISCUSSION:**

Lead a discussion about this activity, asking students how it relates to their own lives and the lives of girls and boys in other parts of the world.

As a group, research water use in different countries and how girls and boys in other parts of the world can help conserve the amount of freshwater found on the planet. Then brainstorm the different ways students can conserve the amount of water they use locally on a daily basis.



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**ADDITIONAL  
RESOURCES:**

For a lesson plan in which students investigate how water is reflected in various cultures in Africa and then write about their own impressions of how water permeates all aspects of life, see: World Wise Schools (Peace Corps), “A Sense of Water: Water in Africa,” 2014, <https://eric.ed.gov/?id=ED457077>.