

# DOWN THE DRAIN

GRADES 3-8

This activity was designed as a companion for the music video “Don’t Treat Mother Earth like Dirt.”

## BACKGROUND

“Don’t Treat Mother Earth Like Dirt” is all about respecting and taking care of our precious and fragile Mother Earth. When we treat something ‘like dirt’ it usually means we act without really caring about what happens to it and therefore do not try to conserve the value it provides.

This song reminds us that Mother Earth feeds us, sustains us, protects us, and does much more for us and other creatures sharing our planet. In return, we are letting pollution, erosion, and other actions harm her. The song lyrics call for all people to take a pledge to our Mother Earth, showing her – through our actions and words – how precious she is.

## OBJECTIVE

In this lesson, students go out into their community to investigate their dependence on water. They simulate the world’s water supply and consider how much clean water is wasted every day while exploring changes they can make to live within the limits of nature. By understanding that clean water is a precious resource, students begin to appreciate the importance of conserving water to sustain the Earth’s freshwater supply.

## MATERIALS

- Three 2L bottles
- One 100 mL graduated cylinder or beaker
- Water (2 L)
- Clipboards
- “Water Use” charts (p. 2 of this document), one per group

## STEP 1 - WORLD WATER SUPPLY DEMONSTRATION

1. To demonstrate the world water supply, fill a 2L container with water. Explain to the class that this water represents all the water on Earth.
2. Using the graduated cylinder or beaker, measure 60 mL of this water, and pour it into one of the empty 2L containers. Explain that the remaining water in the original container represents all the saltwater on Earth, so it can’t be used for drinking.
3. Take the container with 60 mL of water and pour 40 mL into the third container. This 40 mL represents all the water that is frozen on Earth. Only the 20 mL remaining can be used for drinking, bathing, and all other human uses.

## STEP 2 - WATER USE OBSERVATIONS

Divide the class into four groups. Assign each group one of the following areas:

- At home (indoors)
- At home (outdoors)
- At school
- In your town/neighborhood

1. Have each group go on a walk to find sources of water, e.g. puddles, sewers, rain barrels, rivers, kitchen sinks, toilets and sprinklers, in their designated location. Have students observe how the water is being used.
2. Discuss the differences between the types of water they see. What sources of water could the students drink? Is there evidence of water being wasted?
3. Visit a nearby stream, river, or pond, and have the students look for different creatures in and around the water source. What do they observe? How do the creatures depend on the water? Where does the water come from and where does it go? Can you see evidence of water moving?

Collectively fill in a Water Use chart such as the one below:

Location	Sources of Water (e.g. river, puddles, kitchen tap, sprinkler, etc.)	How is this water being used?	Is there water being wasted? If so, where?	Creatures in and around water source
Home (indoors)				
Home (outdoors)				
School				
In your town/neighborhood				

### STEP 3 - DISCUSSION

Reflection questions:

- During your walk outside or inside, what did you discover about the way water is used in our community? How can we change our water use to have a positive impact on nature?
- In what ways do you depend on water?  
Do you think you could use less water in your daily lives in order to live within the limits of nature? How?
- Why is it important to conserve fresh water?
- What impact does our use of fresh water have on nature?
- Do you think all regions of the world have the same access to fresh water as we do in the United States?
- Where does your tap water come from?
- Where does bottled water come from?
- What will happen if humans in developed countries continue to use water at the present rate?

#### DEFINITIONS

**Conservation:** Preservation, protection, or restoration of the natural environment, natural ecosystems, vegetation, and wildlife

**Developed countries:** Countries in the world that have more resources available for them to use

**Developing countries:** Countries in the world that have less resources available for them to use

#### **A note about developed countries, developing countries, and economies**

*Generally, the more resources a country has, the bigger a country's economy. An economy is a system that measures the country's value in terms of how much it makes and uses – this is all based on the wealth and resources the country has.*

*Developed countries are countries in the world that have more resources available for them to use; this may include water, land, money, machines, and more. The countries that do not have as many resources available for them to use usually have smaller economies and are called developing.*

#### STEP 4 - GLOBAL COMPARISON OF WATER

*This part of the exercise can be easily modified for different age levels. The map below, with references to water supply and exploitation of resources, can help students better understand global water supply, use, and demand.*

Prior to beginning the exercise, define and discuss exploitation and the Water Stress Indicator (WSI) measurement.

Ask students to choose a developing country and research its water use. Compare that country's water use to that of the United States. Discuss the unequal distribution of water around the globe using the Water Stress Indicator (WSI) map below. Simple concepts of how economics and human rights are linked to water can also be discussed.

