

## From *As if the Earth Matters- Recommitting to Environmental Education*

By Thom Henley and Kenny Peavy

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### **Water Wasters/Water Savers**

**Age Level:** any age (6 and up)

**Skills/Subject Areas:** science, energy burner, cooperative learning

**Eco-Concepts:**

**Cycles:** Nature works in cycles; the building materials for life must be used over and over again

**Required Materials:** one large bucket, two small buckets, small plastic or paper cups, head bands or arm bands to distinguish 'water wasters'

**Prep Time:** low- less than 10 minutes

**Classroom Adaptations/Variations:**

determine water use in the school and at home, discuss water conservation strategies

**Description:**

For a world that is more than 70% water, things are drying up awfully fast. Only 2.5% of the planet's water is fresh and a mere fraction of that is available for human use. It is said that there will be wars fought in this century, not for land, but for water. "Unless we take swift and decisive action," UN Secretary General Kofi Anan has warned, "by 2025, two-thirds of the world's population will be living in countries that face serious water shortages."

It all sounds pretty scary, and it can be a depressing topic for young people who have their whole lives ahead of them, but it is not hopeless. The answer is to get smart about how we use water. There are many things we can do in our daily lives - at home, school, and the work place - that allow us to be part of the solution rather than contribute to the problem.

Water conservation is the obvious place to start. Consider the fact that every person on the planet (currently 6.5 billion, but projected to be 11 billion by the later half of this century) requires 50 litres of water per day for drinking, bathing, cooking and other basic needs. Now consider the amount of water we waste in our

daily lives - just a few toilet flushes requires 50 litres of water.

*Water Wasters/Water Savers* is a simple and fun exercise designed to engage participants and lead them into frank discussions on making behavioural changes in their lives. You will need three plastic buckets for this exercise and small plastic or paper drinking cups for two-thirds of the players. Set out one big bucket in the middle of a grassy playing field and the other two buckets 20-30 meters away from the center on opposite ends of the field. The number of players you have will determine the distance. If you have 30-40 participants, make the distance larger so that there is plenty of open space for everyone to run about.

The two buckets on opposite ends of the field start out completely empty, but the center bucket is filled with water (12.5 litres for a small group or 25 litres for a large group). These volumes correspond with one or two flushes of a standard toilet.

Gather all the players in a circle and have them count themselves out 1 to 3. Those that called out numbers 1 and 3 are given blue head bands and sent off in different teams to the empty water buckets on opposite ends of the field. They are to be the 'water savers.' The players that remain (number 2s) are given black headbands and sent to the center of the field near the full water bucket. They are to be the 'water wasters'. The 'water wasters' team must quickly think of ways that water is wasted every day. Examples: 1) not turning off the shower faucet while lathering with soap; 2) washing clothes without a full load; 3) leaving the tap water running while brushing teeth; 4) running the dishwasher with just a few items to clean; 5) leaving the hose running while washing the car; 6) watering the lawn in the afternoon sun; 7) not turning off (or fixing) a leaky tap, etc.

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The object of the game is for the 'water savers' to fill their respective buckets as quickly as possible by drawing one cup of

water at a time from the central bucket. All the while, 'water wasters' are trying to tag and challenge the 'water savers' by asking a question they must honestly answer. For instance: "Do you always turn off the tap when you are brushing your teeth?" If the answer is "Yes, I always do," then that 'water saver' player is allowed to run off with their cup of water. If the answer is "No," "Not always," or a sheepish "Sometimes," then the 'water waster' player gets to douse the 'water saver' player with their cup of water.

To slow down, and make things more difficult for the 'water wasters', a 'water saver' player can tag them each time they return to the central well with their empty cup. Once tagged, a 'water waster' must stop and turn three times on the spot before they can pursue other 'water savers' hauling water.

As you can well imagine, the exercise gets pretty wild when water dousing is involved. It is best to do this activity on a hot sunny day so everyone dries off quickly and the grass gets a bit of watering. If it is a cool overcast day, or the facilitator needs to keep their charges dry, they can simply instruct the 'water wasters' to empty the cup of water on the ground instead of dousing the opposing player.

The game is not over until the central water bucket is completely empty. Instruct the two 'water savers' teams to position themselves (with their buckets) in the center of the play area. Check their buckets to see which team has saved the most water. Acknowledge the more successful of the two teams and give them the reward of determining the best use for the water they saved. The choices may range from watering the schoolyard plants to giving all the players an unexpected bath by tossing the water high into the air.

Now that you have everyone's attention and burned some excess energy, sit down with your students and challenge them to compile a list of ways they can conserve water in their daily lives. More important than making the list, of course, is implementing it. After all, since they have all just squandered a fair bit of water, it's time to make some amends.

Pick one water conservation strategy at a time to be implemented and challenge everyone in your class to focus on that goal for an entire week. Make a poster to hang in your classroom as a reminder: "**It's Turn Off the Shower While Soaping Up Week!**" Divide the class into two teams and get a show of hands each day to see how many did or did not meet this objective. Keep score. By the end of the week you should be getting 100% compliance from both teams through peer pressure alone. Now choose a second water conservation strategy for week number two. The strategy for week one continues in addition to week two's, becoming a habitual activity for the students.

By the end of 14 weeks, you should be able to implement all of the water conservation strategies listed below. If you don't think your students' actions are making a difference in the world, try calculating the water your group has conserved over that 3½ month period. They will find it staggering.

### **14 WATER CONSERVATION TIPS FOR DAILY LIFE**

- 1) Flush only when necessary. Avoid using a toilet as a waste basket; each flush uses between 15-23 litres of water.
- 2) Only use your dishwasher when you have a full load. Set it to the cycle with the least number of washes and rinses.
- 3) Avoid running water continuously when washing dishes in a sink. Use separate sides of the sink for washing and rinsing.
- 4) Wash your dishes only once a day.

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5) Do not clean fruits and vegetables under running tap water. Use a basin and then water your house plants with the same water.

6) Avoid running the tap to get cold drinking water. Keep a bottle of drinking water in your refrigerator instead.

7) Decide before you bathe – shower or tub? A very short shower saves more water than a partially-filled tub. A full bathtub, however, uses 114-190 litres of water – more than a short shower.

8) Do not let the water run in the sink while shaving, brushing your teeth, or lathering your face and hands.

9) Wash clothes only with a full load and avoid “permanent press” cycles – they require an extra 38-76 litres of water.

10) Compost or dispose of food waste instead of grinding it down the garbage disposal. Disposals not only use a great deal of water, they can clog your septic field with grease.

11) Water your lawn and garden and wash your car only when absolutely necessary.

12) Water your lawn before 10 a.m. or in the evening to avoid rapid evaporation.

13) Use a broom instead of a hose when cleaning walkways and driveways.

14) Wash your car with a bucket and rinse it with a hose that has a shut-off nozzle.

\* Install low-flow aerators on all faucets. The water flow will seem stronger, but you will actually reduce consumption by 50%.

\* Check toilets for leaks by adding food coloring to the toilet tank. If color appears in the bowl (without flushing), you have a leak that could be wasting 760 litres of water a day without making a sound.

\* Buy a “suds-saver” washing machine when you replace an old one for greatly reduced water consumption.

\* Use water-efficient sprinklers and timing devices to aid absorption by the soil. Water overflowing onto the sidewalk and gutter is a great waste.

\* A drip irrigation system in your garden waters the root areas of your plants and can save up to 60% over other watering techniques.

\* Turn off your water and hot water heater when going on a long trip.

### **MORE WATER CONSERVATION IDEAS**

\* Eliminate leaks in faucets, toilets, hoses and pipes. The leak from a 1/32 inch opening in a faucet or pipe can waste up to 22,800 litres of water per month. A steady drip from a tap wastes 76 litres per day.