



# Be a Superhero: Save Water with Water Woman

## UNIT OVERVIEW AND RESOURCES

**Developed by:** Nathalie Boulanger & Amanda Reimer for the  
Cowichan Watershed Board

**Suggested Date:** Drinking Water Week (May 1-7, 2016)

**Featuring:** Water Woman Videos by Cowichan Watershed  
Board and Pixel House Productions

Introduction: [Water Woman Origin Story](#)

Day 1 : [Water Woman Episode 1: Nine Litres Not Well Spent](#)

Day 2: [Water Woman Episode 2: Two Socks Do Not Make a Load](#)

Day 3: [Water Woman Episode 3: The Longest Shower](#)

Day 4: [Water Woman Episode 4: The Invisible Leaker](#)

Day 5: [Water Woman Episode 5: Less Work, More Chilling](#)

Conclusion: [Water Woman Episode 6: The Dream](#)

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## Overview & Purpose

Increases in our population, the growth of industry and agriculture, and the effects of climate change all put pressure on our water supply. Learning to conserve water is essential to the health of our local ecosystems. We suggest that you use this Water Conservation Unit during BC Drinking Water Week (May 1st- May 7th, 2016), but you could also use the provided resources at any time, especially to complement a unit on the water cycle.

Awareness of water conservation is one of the main goals for BC Drinking Water Week, so these videos and classroom activities are offered to suggest ways that you and your students can take action to save water and thus, increase awareness of this special week in and around your school!

During each day of B.C. Drinking Water Week, we encourage you to share 1-2 of these videos with your class, then use the activity guides or the resources in this Unit Overview to engage your students in thinking more deeply about the value of water.

Each guide includes a few suggested activities that relate directly to the linked video and each one speaks to different ways we can reduce our water consumption. You can choose to complete some, or all of the suggested activities in succession, or you can choose to mix them up and add on your own ideas as well!

If time is limited, a simple way to use these videos would include watching a different video each day and make a week-long pledge to save water.

At the end of this document, we have also included a list of great books, lesson plans and other activities that you might use to add literacy, math and other cross-curricular activities throughout this unit.

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## Introducing the Unit:

Hook: Watch [Video 1: The Origins](#).

To launch Drinking Water Week, meet Water Woman, a water conservation superhero. Water Woman is trying to stop her cousin and villain, Leak E. Hoser, to stop wasting water.

To introduce the unit, we have suggested activities that will help frame the topic of water conservation, such as the World Water Demo.

Because each watershed has its own characteristics and local issues, we suggest you start the week by taking time to introduce your class to the local watershed. Discuss the rough physical boundaries from height of land to outlet, species that use the watershed as their habitat, historical human uses of the watershed such as industry, agriculture, residential, and any recent issues such as water shortages, pollution, etc. This will help students understand how water conservation affects their local community and surrounding environments.

## Suggested Activities

### 1. Warm-up: How much water do you use in a day?

Source: [www.earthday.org](http://www.earthday.org)

This is a class discussion and brainstorming introduction for all the ways we depend on and use water in our everyday lives.

- A. 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 fishtank, water lawn, cooking, cleaning, etc.)
  
- B. Also ask students to name other places and things, besides their home, where water is used. Have them think about how they are connected to those places and things (i.e. favorite fresh-water swimming spots, farmers watering crops and water for livestock, paper mills using water for paper production, watering plants with clean tap water, etc.)

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### Adaptation/ Extension:

*KWL chart about: water, water cycle, water conservation, your local watershed and local issues, etc.*

## 2. The World's Water Demo with Materials from Home

Source: [Share it! Science News](#)

This demo helps students visually understand that although the earth is covered with water, there is a very limited amount of fresh water available for use.

### Supplies Needed:

- 1 gallon jug
- 3 clear cups
- 1/4 cup measuring cup
- 1 Tablespoon
- eyedropper (or a straw to make a drop)
- water

1. Fill the jug with water. **This represents all of the water on Earth.**
2. Take 1/4 cup of this water and pour it into one of the clear cups. **This represents Earth's fresh water.** The rest of the water in the jug represents salt water. We can't drink salt water!
3. From the 1/4 cup of water in the clear cup, take 4 Tablespoons of water and pour this into the second clear cup. **This represents the fresh water that is not available because it is frozen in ice caps or glaciers.**
4. From the cup with the 4 Tablespoons of water, remove one drop with the eyedropper or straw and put it in the third clear cup. **This represents the water that is clean, fresh, not polluted and otherwise available to use.**

## 3. Introduce Water Conservation Pledge for the Week

Source: Nathalie Boulanger & Amanda Reimer

Introduce and explain what a pledge involves if the students have no previous experience. Explain that May 1st- May 7th is 'B.C. Drinking Water Week' and that each

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day they will be watching a short video and learning about ways to conserve water and why it's important for the health of the planet, and their own families.

Brainstorm with students how your class can make their pledge to create awareness about conserving water at school and at home. Some ideas have been included to help you...

- ❑ Have students write a different daily pledge to save water for each day of the school week. Create a visual banner that is visible in the school. For each day of the week, students will create a water drop, hand-print, etc. that has their daily pledge written on it. These pledges are then posted on the visual banner to increase awareness and provide ideas for how other students, staff members of visitors in the school can reduce their water consumption.
- ❑ Older students could complete an inquiry project, and/or research facts about water consumption and post these facts on a visual banner that is also visible in the school. This idea could become a week long activity where students work on an individual/ group visual poster board with images, facts and positive outcomes for water conservation in regards to reducing water consumption.
- ❑ Send your students home with a **Student & Family Pledge Sheet** that will help increase awareness regarding water consumption. You may print off the last page of this document and make copies for your students.
- ❑ As a class, graph the results from the **Student & Family Pledge Sheet** and add this to your visual banner for everyone in the school to see! If your students have more ideas to save water, this could also be added on the backside of the pledge sheet and added to the visual banner. When the week is done, return the pledge sheets and encourage the students to post them on their fridge as a daily reminder for the whole family :)

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## Resources to complement this Water Conservation unit (Books, Lesson plans, Activities, etc.)

### Books

- [All the water in the world](#), by **George Elly Lyon**, illustrated by Katherine Tillotson (importance of water conservation, concrete poetry).
- [Precious Water, a Book of Thanks](#), by **Brigitte Weninger** (Author), Anne Möller (Illustrator) (importance of water, gratitude).
- [One Well: The Story of Water on Earth](#), by **Rochelle Strauss** (Author), Rosemary Woods (Illustrator) (water cycle) (Talks about how all water is connected on the planet, and how each of us can do things to conserve water. The book also looks at water in a small area and then explained how use of this resource can impact other areas of the globe. *For Ages 8 and up*).
- [A Drop Of Water: A Book of Science and Wonder](#), by **Walter Wick** (science of water, experiments, stunning photographs).
- [Water Dance](#), by **Thomas Locker** (water cycle, poetry, literacy).
- [The Drop In My Drink: The Story Of Water On Our Planet](#) (history of water on Earth (social & science)).
- [Why Should I Save Water?](#) Illustrated by **Mike Gordon** (Children learn that clean water is one of our most precious natural resources. In this book, boys and girls are told about dozens of ways in which they and their families can avoid wasting water. Part of every child's development involves asking questions. Today, some of the most important questions kids ask are related to the natural environment).
- [The Water Hole](#) by **Graeme Base** (ages 4-9, also available in board version. From the plains of Africa and the jungles of the Amazon to the woodlands of North America and the deserts of outback Australia, the animals come together to drink from the water hole. But their water supply is diminishing. What's going on? Each sumptuous landscape illustration conceals hidden animal pictures for readers to find as they count the animals that visit the water hole and try to solve the mystery: will the animals come back or is their water source gone forever?).

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- [Did a Dinosaur Drink this Water?](#) **By Robert E. Wells** (Great look at the earth's water cycle and how water has recycled itself over billions of years. Makes kids really think about where water comes from. **For ages 6-10**).
  - [The Magic School Bus At The Waterworks](#) **by Joanna Cole** (Fun field trip for kids as they see Ms. Frizzle and the class travel through the water cycle. These books are very informative with great illustrations – kids will learn a TON as you read this! **For Ages 4 -10**).
  - [Follow the Water from Brook to Ocean \(Let's-Read-and-Find-Out Science 2\)](#) **by Arthur Dorrus**. (Teaches children that the water they see in their neighborhood stream or creek is all connected to the ocean. This is an important lesson for kids - if you throw something in the brook, it will end up in the ocean and do damage along the way. A great read that will encourage families to be more involved in stream clean-ups! **For ages 4 - 9**).
  - [Our World of Water: Children and Water Around the World](#), **by Beatrice Hollyer**. (This book follows the daily lives of children in Peru, Mauritania, the United States, Bangladesh, Ethiopia, and Tajikistan, and explores what water means to them. Where does it come from? How do they use it? With the growing threat of climate change affecting all our lives, this book invites discussion on the ways different countries and cultures value this most precious of our planet's natural resources.)
  - [A Cool Drink of Water](#) **by Barbara Kerley**. (An Italian boy sips from a fountain in the town square. A hiker takes a refreshing drink from a mountain stream. Black-robed women in India stride gracefully through a field with brass water jugs balanced on their heads. Whether they squeeze it out of a burlap bag, haul it home from a communal tap, or get it out of their kitchen faucet, people all around the world are unified by their common need for water. Barbara Kerley brings home this point simply and eloquently in this beautiful and educational picture book that combines striking National Geographic photographs with a poetic text to show how people in various cultures use and conserve the world's most vital resource).
  - [A Drop Around the World](#), **by Barbara Shaw McKinney**. (This book is a year-after-year favorite with teachers. It engagingly leads readers around the world following a drop of water—whether as steam or snow, inside a plant or animal, or underground—teaching the wonders and importance of the water cycle.

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## Complementary Lessons & Supporting Documents:

- ["Water is Life, Water is Poetry" Seminar](#) (Grades 3-5) (by water.org): Use the poetry provided in this document to work on water inspired poetry with your students during Drinking Water Week. Alternatively, use these books for inspiration to create water inspired concrete (shape) poetry: [All the water in the world](#), by **George Elly Lyon**, illustrated by Katherine Tillotson (importance of water conservation, concrete poetry), [Water Dance](#), by **Thomas Locker** (water cycle, poetry, literacy).
- ["World-Water Hero!" Lesson Plan- Grades K-5](#): Students will create a superhero with superpowers that can improve water quality and availability. (by water.org)
- [Cal Water H2O Challenge](#): a project-based, cross-curricular and environmentally-focused competition for classrooms, grades 4-6. The competition is based in California but the website and teaching material could be adapted to Canada. It goes well with the new BC Curriculum. You could use this structure to organize a water conservation challenge in your school!
- [Thirstin Water Booklet: Early Primary](#)
- [Colossal vs. Water Saving Habits](#)
- [Free Water Usage Worksheet \(in gallons\)](#)
- [Lesson Plan: How much water is available to drink?](#)
- [Class Game: How much Water does it take for common foods](#)
- [Watershed Lesson from National Geographic](#)
- [Home Water Use Lesson- Extended Assignment w/ Assessment \(secondary\)](#)

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## **Student & Family Pledge to Improve Water Saving Habits**

For National Drinking Water Week, you and your family are invited to take a pledge to save water! As a group, check off the tips below that your family is willing to complete (parents' consent required for anything involving home renovations!). Sign the pledge at the bottom and record the date. Congratulations and good luck!

- Take shorter showers/use less water in the bathtub.
- Turn the water off while you brush your teeth or wash your hands.
- Check all water fixtures for leaks and fix/replace those that are leaky.
- Use a broom to clean your driveway instead of a hose.
- Use a layer of organic mulch around plants to reduce evaporation and save hundreds of gallons of water a year.
- Save water whenever possible ie. use unused water in your drinking glass or bathtub to feed your plants.
- Ask your parents to help you perform a dye test to see if your toilets are leaking. To check if a toilet is leaking, remove the cover from the back tank of your toilet, add 3 drops of food colouring until the water in the tank is coloured. Wait 20-30 minutes (without using the toilet). If any of the dye has entered the toilet bowl in that time, your toilet "flapper" is leaking - a very common source of household leaks. Simply clean and/or replace the flapper. (You can fix your flapper yourself for under \$10 - see: [http://www.cowichanwaterchallenge.ca/test\\_your\\_toilet](http://www.cowichanwaterchallenge.ca/test_your_toilet))
- Aerate your lawn. Punch holes in your lawn about six inches apart so water will reach the roots rather than run off the surface.
- Let your lawn enjoy a natural summer 'tan'. Grass naturally goes brown in summer in BC unless it rains or we water it, then the lush green returns in winter and spring. Embrace the season, and enjoy less mowing, by not watering your lawn in summer. "Brown is beautiful"!

**By signing our names below, we pledge to use water more efficiently by conducting the activities checked above.**

Student Name & School \_\_\_\_\_

Family Members \_\_\_\_\_

Date \_\_\_\_\_

Please remember to bring your signed pledge back to class to share your commitments! For more information on water conservation and what you can do to protect your watershed, visit your local watershed association.

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**Thank you for taking time to be a part of BC Drinking  
Water Week!**

