




Ryan's Well
FOUNDATION

Youth in Action

Water, Wells and Us: Workshop Series

Why Do We Care About Water?
(curriculum links kindergarten, grades 1, 2 and 3)



A Toast to Water
(curriculum links grades 7, 8, 9 and 10)



Where Does Your Puzzle Piece Fit?
(curriculum links grades 7, 8, 9 and 10)



Canadian International
Development Agency

Agence canadienne de
développement international

Produced with the support of the Government of Canada through CIDA



Why Do We Care About Water?

Number of Participants: 20 – 30

Duration: 10 – 20 minute sessions

Materials Required:

- one eye dropper or small cups
- small pool of water or other body of water

Warm Up Activity:

Prompt a discussion about water and its many different uses in the world for people, animals, food, plants, etc.

Ask students if it is difficult for them to access water and most likely they will say, “No”.

Now have them think about situations where it might be hard to get water – prompt them to speak about people in other countries who do not have kitchen sinks or hoses – how do these people get water?

Have your class sit in a circle and discuss ways in which each of them can make a difference in conserving water.

Explain to them that ‘conserve’ means to ‘save’ or ‘protect’.

On a sheet of chart paper, record the students’ responses and encourage them to take meaningful action on their suggestions.

Place the list of suggestions in a central area of the classroom and return to it often.

Activity:

1. On a separate day, review the list and ask if anyone can come up with more suggestions.
2. Now lead the class in an activity that will show them that every drop of water saved counts in making a difference in water conservation and awareness.
3. If you have a small body of water close by, do this activity outside, if not, make a body of water perhaps out of a small pool or bowl.
4. Create a special atmosphere for this water ‘ceremony’ – play water sounds on the CD player, have a ‘rainmaker’ instrument, etc.
5. Have students reflect on all the different uses of water in their lives. Then ask students to come to the ‘pond’ one at a time and add a drop to the body of water with the eye dropper or small cup.
6. As they do this, have the students reflect on ways they can help to make a difference in the environment by saving water in their household. Ask them to share with the remainder of the class how they plan to do their part.
7. Ask students to share the message of “why we care about water” and its importance to their family and friends.



Why Do We Care About Water?

If you are able to do this activity at a pond or other body of water, explain to students how all their drops of water have come together to become part of a larger body of water. Then explain how this pond plays a part in our lives as it is part of our earth's water cycle.

If you are unable to do this activity at a pond, remind students that they are to imagine the pool of water as a pond or other body of water.

This activity demonstrates to students how we are all connected no matter where we live on our planet Earth. Water is something we all need and use.

Lesson Extension

In the third session have students reflect upon the water dropper activity. Then have them paint a picture representing what water means to them. You can prompt them to think about how water is most important to them and their families. If this activity coincides with World Water Day (March 22), you can display their pictures in the school display case. In a grade one, two or three class have students present their art to the class, explaining what they chose to depict in their art and why.





A Toast to Water

Number of Participants: 20 – 30

Duration: 20 – 30 minutes

Materials Required:

- two buckets full of water
- back pack with books or something heavy inside
- bed sheet/blanket (to wrap around the back pack to resemble a child being carried)
- cups for the toast
- chairs and other large items as obstacles
- drinking water
- salt water
- pens

Warm-Up Activity:

Ask students to turn to the person sitting beside them.

Together they will approximate the amount of water they have used in the last 24 hours. If it is not possible to come up with a number, at least come up with a list of activities they have participated in that consumes water.

Bring students' attention back to the front – ask the following questions:

- *How many of you took a bath/shower last night?*
- *How many of you took a bath/shower this morning?*
- *Did any of you need to go and collect the water you used?*
- *Did any of you need to go and find water to use?*
- *Did any of you even think about the fact that you had water readily at your disposal last night or this morning?*

Remind them of water uses that they may not have thought of – for example, cooking, dishwasher use, laundry, leaky tap, toilet flushes, etc.

For the majority of people living in the developing world, water is something that needs to be constantly thought about, found, collected, conserved and in many places purchased. For millions of people in the world even after they have collected water, it isn't clean water.

Fact:

By 2025 more than 3 billion people (half of the world's population) could be living in water stressed countries, and 14 countries will slip from water stressed to water scarcity.

- According to the 2006 United Nations Human Development Report some countries that will experience water scarcity are – China, India and various African countries. Some countries within North America and the Middle East will experience water stress.



A Toast to Water

Definitions:

Water scarcity: is a situation where there is insufficient water to satisfy normal requirements. There are degrees of scarcity - absolute, life-threatening, seasonal, temporary, cyclical, etc. Populations with normally high levels of consumption may experience temporary "scarcity" more keenly than other societies, who are accustomed to using much less water.

Water stress: are the symptoms of water scarcity or shortage. (e.g. growing conflict between users and competition for water, declining standards of reliability and service, harvest failures and food insecurity.)

Source:

www.fao.org/ag/agl/AGLW/webpub/scarcity.htm

Activity:

1. Get a volunteer to come up and demonstrate to the group what it would be like to be a woman, with a baby on her back, carrying water. Get the volunteer to walk around the desks in the room (as physical obstacles).

OR

Ask all the students to form two lines at the front of the class and take turns walking around the classroom carrying a bucket full of water.

Optional Settings to have students think about:

- It is 30 degrees outside, you have five children, your husband is away in the city looking for work. You must collect water every day or every second day for your family to survive.
- You are a nine year old who is helping your mom collect water as she is very ill. You must wake up at three am every morning to go and fetch water before you go to school.

Questions to ask the group:

2. From what you have just seen (the reenactment of what it is like for some women in water poor countries) what are some obstacles you can think of that people collecting water (woman/girls) may run into when collecting/finding water?

- can't find a water source
- long lines waiting for water
- threat of wild life
- sick, pregnant or injured
- insecure areas – kidnapping or rape etc.

How many hours do you think the average person (who is usually a woman or child) takes to collect water?

- in many countries it takes at least three to five hours to collect water because of the distance needed to find the water point, time you wait in line, transporting it back home.



A Toast to Water

True and False Questions:

- Lack of water is the number one trigger of daytime fatigue. **TRUE**
- More water is used in the kitchen than any other place in the home. **FALSE (Bathroom)**
- 50% of the world's fresh water is held in polar ice caps and glaciers. **FALSE (90%)**
- In developing countries, 80% of illnesses are water related. **TRUE**

World Water Statistics:

- Each year more than 1 billion of our fellow human beings have little choice but to resort to using potentially harmful sources of water. This perpetuates a silent humanitarian crisis that kills some 3900 children every day.
- A mere two per cent drop in body water can trigger fuzzy short-term memory, trouble with basic math, and difficulty focusing on the computer screen or on a printed page.
- By 2050, it is believed that “water will be the most critical resource issue we face in the entire world.”
- According to the UN, nearly two million children die every year because of unclean water and poor sanitation – far more than the casualties from violent conflicts.
- Human brains are 75% water, human bones are 25% water, human blood is 83% water.
- Each day the sun evaporates a trillion tons of water.
- A single tree will give off 265 litres (70 gallons) of water per day in evaporation.
- A small drip from a faucet can waste as much as 75 litres of water a day.

Toast to Water!

3. Make sure that 30% of the cups have regular drinking water and the rest (70%) have salt water. Ask each student to come and take a cup of water and get ready for the ‘toast’.

Get all students to raise their cups and toast to the fact that they are very fortunate to live in a country like Canada and have access to clean drinking water.

“HERE’S TO CLEAN WATER!” (TOAST)

Wait for the student’s reaction (most will have salt water).

Ask students to raise their hands to show those that had salt water in their cups.

Explain that 70% of students have salt water in their cups to represent the fact that after spending many hours a day collecting water, most water collected is still unsuitable for drinking. Most of the water collected by citizens of a developing country will make them sick with many different diseases.

What do they think about this fact? How do they feel? Do they think it is worth doing something about it?



A Toast to Water

Conservation Activity – Doing Your Part:

4. Divide the group into two smaller groups.

Provide each with a piece of paper and pencil.

Instruct each group to appoint a secretary.

Instruct each group to brainstorm a list of conservation ideas to help save water around the home, school, community and the globe. Have the secretary record the ideas.

Give students about five to eight minutes to come up with as many ideas as they can.

Have each secretary come to the front of the group and take turns presenting their conservation ideas. If one secretary reads a conservation idea that the other group also has, then the other secretary must read something different. The group with the most unique ideas is declared the 'winner'.

Provide a small prize to the winning group.

Lesson Extension

Encourage students to apply what they have learned in this workshop to their home life. Create a friendly classroom competition where students vie to be the most water conservative member of their class. Have students keep a record of the different water-saving methods they have utilized in their daily routines. As a quality control measure, have the student's parent sign off on the different activities. For example, if a student states that they have switched their shower head to a low flow showerhead, have them obtain a parent's signature to attest to that fact. At the end of a month, have the students submit their list of water conservation methods. Assess who has saved the most water for the month and award them a small prize or class privilege.

Sources:

www.enviroalternatives.com/waterdrinking.html

www.worldwaterday.org

www.organicconsumers.org/OFGU/savewater011305.cfm

www.allaboutwater.org/tap-water.html

www.lenntech.com/water-trivia-facts.htm



Where Does Your Puzzle Piece Fit?

Number of Participants: 20 – 30

Duration: 30 – 40 minutes

Materials Required:

- world maps which can be found on the internet (e.g. www.clickandlearn.com/GIFFiles/Continents2WhiteOnly.gif) (cut into 15 – 20 puzzle pieces)
- pencils
- ziploc bags (if map is done up ahead of time)
- scissors

Warm-Up Activity:

While participants are assembled in one large group ask them to perform this task: **“Think of a person you feel has made an impact on this world.”**

Give the participants a few seconds to come up with an answer then ask them to share their responses with the group. Most likely the responses will include people who have made a great impact on the largest number of people or people who have received a large degree of notoriety for their efforts. After hearing some responses, encourage participants to think of people who may not have the notoriety but still have made a difference in their community, city, or country. This may prompt students to think of someone they know or of someone they have heard of who do the best they can with what resources they have.

The purpose of this discussion is to make participants aware that not all good deeds have to be great feats of humanity. Explain that the workshop they are participating in will help them to pinpoint where they may be of the most benefit.

Activity:

1. Hand students puzzle pieces in the ziploc bag.
2. Ask them to think about as many different issues affecting our world today as they can.
3. While participants are sharing their issues, tell them to write down the issues that are most important to them – one issue per piece of puzzle.

If the discussion slows, prompt participants with ideas of your own. Have a list ready to consult at this time. For example:

- Energy conservation
- Education
- Child poverty
- Health (HIV/Aids, cancer, etc.)
- Human rights
- Rainforest conservation
- Voting
- Racial discrimination
- Etc.



Where Does Your Puzzle Piece Fit?

Issues can be as broad or specific as participants wish, but remind students they should come up with as many issues as there are puzzle pieces.

4. Once participants have all puzzle pieces written on, ask them to assemble the pieces into a map of the world (This part of the activity should not take more than five minutes and the students may work with a partner if needed).
5. Once puzzles are assembled ask participants to remove half the issues from their puzzle. This half will represent the issues that they view as important to them (approximately nine pieces).
6. Once participants are left with half their puzzle, ask them to half it once again (approximately four pieces). Again they should select the issues that are most important to them. They should start to realize that they are narrowing down a field that at one time may have seemed daunting (world issues) but now seems more attainable.
7. Have participants choose half of their issues once more (approximately two pieces).
8. Now have students choose from the remaining pieces. Suggest to them that the issue they choose from the map represent where they could possibly make a difference in their world – that could be their community, city, country or the entire world. Through this process of elimination, they might have been able to pinpoint where they would be the most helpful. The piece of the puzzle they are left with could be the issue they feel most connected with or could be the issue where they feel they could make the most impact.
9. Have participants share each of their final puzzle pieces and suggest different avenues they could consider in making their puzzle piece fit.

Lesson Extension

As this lesson helps focus a student's attention on a particular global issue of interest, have them do some extra research into how they can successfully aid this issue at this point in their lives. For example if, at the end of this activity a student has realized that they believe their puzzle piece is Health Care Education, assign a task where they have to prepare a one page report on what they can do right now to raise awareness of health issues affecting developing nations (e.g. AIDS in Africa).

They will need to revisit some of the ideas generated in step nine of the activity to get them started. Give students enough time to research their cause, seek out opportunities to help the cause and to write a short report on what they have learned. The report should also detail steps the student plans to take in order to fulfill their commitment to the cause.

Curriculum Links for: Toast to Water and Where Does Your Puzzle Piece Fit?

Language

Grade 7 – 8

Oral Communication Strand

- listen in order to understand and respond appropriately in a variety of situations for a variety of purposes
- use speaking skills and strategies appropriately to communicate with different audiences for a variety of purposes

Reading Strand

- read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning
- recognize a variety of text forms, text features, and stylistic elements and demonstrate understanding of how they help communicate meaning

Writing Strand

- generate, gather, and organize ideas and information to write for an intended purpose and audience
- draft and revise their writing, using a variety of informational, literary, and graphic forms and stylistic elements appropriate for the purpose and audience
- use editing, proofreading, and publishing skills and strategies, and knowledge of language conventions, to correct errors, refine expression, and present their work effectively

English

Grade 9

Writing Strand

- use a variety of print and electronic sources to gather information and explore ideas for their written work
 - identify the literary and informational forms suited to various purposes and audiences and use the forms appropriately in their own writing, with an emphasis on supporting opinions or interpretations with specific information
 - use a variety of organizational techniques to present ideas and supporting details logically and coherently in written work
 - revise their written work, independently and collaboratively, with a focus on support for ideas and opinions, accuracy, clarity, and unity
 - edit and proofread to produce final drafts, using correct grammar, spelling, and punctuation, according to the conventions of standard Canadian English, with the support of print and electronic resources when appropriate
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Curriculum Links for: Toast to Water and Where Does Your Puzzle Piece Fit?

Language Strand

- use knowledge of vocabulary and language conventions to speak, write, and read competently using a level of language appropriate to the purpose and audience
- use listening techniques and oral communication skills to participate in classroom discussions and more formal activities, such as storytelling, role playing, and reporting/presenting, for specific purposes and audiences

Grade 10

Writing Strand

- use a range of print and electronic sources to gather information and explore ideas for written work
- identify the literary and informational forms suited to various purposes and audiences and use the forms appropriately in their own writing, with an emphasis on adopting a suitable voice
- use a variety of organizational techniques to present ideas and information logically and coherently in written work
- revise their written work, independently and collaboratively, with a focus on support for ideas and opinions, accuracy, clarity, coherence, and effective use of stylistic devices
- edit and proofread to produce final drafts, using correct grammar, spelling, and punctuation, according to the conventions of standard Canadian English specified for this course, with the support of print and electronic resources when appropriate

Language Strand

- use knowledge of vocabulary and language conventions to speak, write, and read competently and effectively for a variety of purposes and audiences, using a level of language appropriate to the context
 - use listening techniques and oral communication skills to participate in classroom discussions and more formal activities, such as dramatizing, presenting, and debating, for a variety of purposes and audiences
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Curriculum Links for: Why Do We Care About Water?

Kindergarten: Personal and Social Development

- demonstrate a sense of identity and a positive self-image
- demonstrate a beginning understanding of the diversity in individuals, families, schools, and the wider community
- interact cooperatively with others in classroom events and activities
- develop an awareness of ways in which people adapt to the places in which they live

Language

- communicate by talking and by listening and speaking to others for a variety of purposes and in a variety of contexts

Science and Technology

- demonstrate an awareness of the natural and human-made environment through hands-on investigations, observation, questioning, and sharing of their findings
- conduct simple investigations through free exploration, focused exploration, and guided activity, using inquiry skills
- demonstrate an understanding of and care for the natural world

The Arts

- communicate their ideas through various art forms
- demonstrate an awareness of themselves as artists through engaging in activities in visual arts, music, drama, and dance

Grade 1 – 3: Oral Communication

- listen in order to understand and respond appropriately in a variety of situations for a variety of purposes
- use speaking skills and strategies appropriately to communicate with different audiences for a variety of purposes
- reflect on and identify their strengths as listeners and speakers, areas for improvement, and the strategies they found most helpful in oral communication situations

The Arts Visual Arts

- produce two- and three-dimensional works of art that communicate ideas (thoughts, feelings, experiences) for specific purposes
 - use the elements of design (colour, line, shape, form, space, texture), in ways appropriate for this grade, when producing and responding to works of art
 - describe how the ideas in a variety of art work relate to their own knowledge and experience (use vocabulary and art terminology associated with the specific expectations for this grade)
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Water, Wells and Us: Workshop Series Evaluation

As each student participates in their own way, assign a mark from 1 – 4 to show their level of participation. Allow room in your checklist to write any anecdotal notes on student's participation where needed.

A. Participates in pre-workshop discussion.

Student:

- 1 – made no attempt to participate or contributed negatively to the discussion
- 2 – made an attempt to participate but comments were off topic or inappropriate
- 3 – contributed appropriately to discussion
- 4 – contributed appropriately to discussion and generated other, interesting discussion questions

B. Is active in volunteering for workshop activities.

Student:

- 1 – made no attempt to participate or contributed negatively to the activity
- 2 – made an attempt to participate but needed sufficient reminders on activity procedure
- 3 – participated appropriately in the activity
- 4 – participated appropriately in the activity and guided others in need of help

C. Is taking the workshop material seriously and is giving it adequate attention.

Student:

- 1 – does not seem at all interested in the activity and distracts other students participating in the activity
- 2 – gives activity adequate attention but needs to be reminded of the task
- 3 – appreciates the nature of the activity and the reasons for participating in it
- 4 – appreciates the nature of the activity and tries to get other students to participate

D. Participates in the post-activity discussion.

Student:

- 1 – made no attempt to participate or contributed negatively to the discussion
- 2 – made an attempt to participate but comments were off topic or inappropriate
- 3 – contributed appropriately to discussion
- 4 – contributed appropriately to discussion and generated other, interesting discussion questions

E. Generates ideas for issue resolution and prompts further discussion/evaluation of the issue.

Student:

- 1 – Never
 - 2 – Rarely
 - 3 – Sometimes
 - 4 – Often
-