

Global Voices is a weekly column written by Craig and Marc Kielburger examining current events, topics and issues affecting local and global communities. Each month, engaging classroom resources are created to accompany one column to help educators bring world issues into the classroom in a digestible manner. For more information on how to sign up please visit WE.org/global-voices-signup.

What Happens When Day Zero Comes Here?

Fact Sheet

- The average Canadian consumes more than 300 litres of water a day, making us one of the world's biggest water consumers. Only Americans use as much water as Canadians. Europeans, on average, use less than half the water of North Americans. (*Vancouver Sun*)
- 65% of our household water gets used in the bathroom by toilets, baths and showers. Another 20% of our water use goes to laundry, 10% for cooking and drinking, and 5% for other household cleaning. (*Global News*)
- Canada is home to 20% of all the freshwater resources in the world. However, over half of that supply is not considered "renewable." Renewable means water sources that, when used, are refilled and replaced by new water from rain, snow melt, etc. Most of Canada's supply is "fossil" water—this includes water leftover from melting glaciers during the last ice age (as in the Great Lakes), or water trapped in underground aquifers. These sources refill very slowly, or not at all, so they can be used up. (*Government of Canada*)
- Although the number varies, at any given time there are usually more than 100—as many as 140—Indigenous communities that do not have secure access to clean water. For some, the problem has existed for years. The Neskantaga First Nation in Ontario has been under a boil water advisory for 24 years. (*Huffington Post*)
- In 2015 and 2016, blue-green algae reached dangerous levels in Buffalo Pound Lake, the primary water source for the cities of Regina and Moosejaw in Saskatchewan. Blue-green algae are plantlike bacteria called "cyanobacteria," which can produce chemicals that are toxic to humans and animals. (*Maclean's*)
- In 2016, Nova Scotia experienced a drought. While the big cities like Halifax still had water, in many rural areas people who relied on underground wells for their water found their wells going dry. They had to pay companies to bring them water by truck. (*Halifax Chronical-Herald*)
- A drought that has lasted several years has forced the city of Vancouver, and other cities in British Columbia, to ban things like watering lawns and gardens and refilling swimming pools, to protect the water supply. (*Globe and Mail*)



WE Learning Framework Skills



Critical Thinking



Action Planning



Reflection

These icons identify the most relevant skills students will develop using this resource. Learn more about the WE Learning Framework at WE.org/we-schools/program/learning-framework/.

Subject

- Geography
- Social Studies

Materials

- Front board
- Paper and writing utensils
- Computer/tablet with Internet access
- Blackline Master 1: Understanding the Global Water Crisis

Key Terms

- **Freshwater**—Water that does not contain high levels of salt, unlike the oceans, which are very salty and therefore unsafe for humans to drink. Inland lakes and rivers are usually freshwater.
- **Drought**—When there is little or no rain in a particular area for an unusually long period of time, resulting in a water shortage.
- **Boil water advisory**—A public warning by government officials that people should boil the water from their taps before drinking or washing with it, because there is a high risk of contamination by dangerous microorganisms like E. Coli bacteria.
- **Water conservation**—Measures that protect water resources by reducing consumption and preventing pollution.

Classroom Activity - Grades 4 to 8

Essential Question:

- ▶ Why should the water crisis be considered a global issue?
- ▶ In what ways does the water crisis impact people and the planet?

Learning Goals:

Students will:

- ▶ Develop an understanding of the global water crisis
- ▶ Recognize the consequences of a water crisis
- ▶ Identify the causes of and possible solutions to local or global water issues

Discussion:

1. What are examples of water issues affecting our world today?
2. Where are these water issues taking place?
3. What are the potential consequences of a water crisis?
4. Why is water necessary for human life?
5. What do the authors mean when they say Canada's water conservation efforts "compare poorly to other countries"?

Warm up: (10 minutes)

Choose one or more of the videos or images below. Explain to students that these are videos and images of people taking action to raise awareness for local and global water issues.

Share the videos or images with students and, in small groups, have students discuss one or more of the questions below. Alternatively, invite students to choose one of the videos or images to explore in their groups and have them answer some or all of the questions about their video or image.

Videos

- Autumn Peltier, "I Am Indigenous," www.youtube.com/watch?v=_EodBINYV7A (2:02)
- "Global Water Dances 2017," www.youtube.com/watch?v=H-9fbmm7Nc4&list=PLJ4KvKB22QetmFu3PcAaeArdPdPKswiHs (3:12)
- "Don't Forget the Water," www.vimeo.com/182057555 (2:47)

Images

- Grassy Narrows First Nations, www.680news.com/wp-content/blogs.dir/sites/2/2016/06/FreeGrassy-0324.jpg

- Shoal Lake, media.winnipegfreepress.com/images/141208-_WATER_02_18329639.jpg
- Dakota Access Pipeline, https://media.npr.org/assets/img/2016/08/19/gettyimages-587636528_custom-8c05f831b3d3d2696526016ada176144c3ee74fa-s1500-c85.jpg
- Flint Michigan Water Crisis, fm.cnn.com/applications/cnn.com/resources/img/editorial/2016/03/24/103494487-RTS9KWZ.530x298.jpg?v=1458823352

Questions

- a. What are the water issues the people in the video or image are raising awareness about?
- b. What motivates these people to take action?
- c. What role does water play in their lives? What does water represent for them?
- d. What role does water play in your life? What does it represent to you?

Provide each student with a sticky note. Invite students to choose one word or image that demonstrates what water means to them and record it on the sticky note. Use the sticky notes to begin to create a display in the classroom titled *Why Do We Need Water?*

Investigate and Learn: (50 minutes)

Create a carousel activity by writing each of the questions from the *Discussion* section on a piece of chart paper. Post the chart paper in different spaces around the classroom.

Divide students into pairs or small groups and provide each student with a copy of the *Global Voices* article "What Happens When Day Zero Comes Here?"

Assign each group one of the questions. Ask students to read the article, discuss the question and then choose one person to record their response on the chart paper. Provide each group with a different colour of marker so it is clear which response belongs to which group.

Give students a signal and ask them to rotate to the next question. Ask students to review the answer from the previous group and add their comments to the paper. Encourage students to consider whether they agree or disagree with the previous response and to think about how they can extend the comments from the other group.

Once students have rotated through all the questions, post all four pieces of chart paper on the front board and review students' responses. Discuss any questions students have about the article and provide clarification if necessary.

In a brief written reflection, ask students to describe three things they learned from the article and the discussions, two things

they found interesting and one question they still have. Consider adding these reflections to the *Why Do We Need Water?* display to demonstrate student learning. As an alternative, students may also choose to respond orally or create a video reflection. Students' questions can be used to begin the Dive Deeper section or can be used as a spark for independent inquiry.

Dive Deeper: (2 x 60 minutes)

Reinforce with students that water crises are taking place all around the world, including Canada. In pairs or small groups, challenge students to investigate one of the regions identified in the article that is experiencing water issues and use **Blackline Master 1: Understanding the Global Water Crisis** as a guide to explore how these issues are affecting the people living in the regions. Encourage students to also consider choosing to investigate a local water issue or a water issue in a region that has personal significance for them. Provide students with the following links and resources to begin their investigation:

Boil Water Advisories in First Nations Communities, Canada

- Ending Long-Term Drinking Water Advisories In First Nation Communities, www.aadnc-aandc.gc.ca/eng/1506514143353/1506514230742
- Short-Term Drinking Water Advisories: First Nations South of 60, <https://www.canada.ca/en/indigenous-services-canada/services/short-term-drinking-water-advisories-first-nations-south-60.html>
- Water, <http://aptnnews.ca/perspectives/water/>

"Day Zero," Cape Town, South Africa

- "Every Day Seems Like 'Day Zero' To Some Cape Town Residents," www.npr.org/sections/goatsandsoda/2018/03/13/592925986/water-shortages-are-nothing-new-to-some-folks-in-cape-town
- "Cape Town's Water Situation Dire, As 'Zero Day' Looms," www.cbc.ca/player/play/1184218691922
- "Day Zero Deferred, But Cape Town's Water Crisis Is Far from Over," www.cnn.com/2018/03/09/africa/cape-town-day-zero-crisis-intl/index.html

Water Shortages, São Paulo, Brazil

- "A Megacity Without Water: São Paulo's Drought," www.time.com/4054262/drought-brazil-video
- "The Amazon Effect: How Deforestation Is Starving São Paulo Of Water," www.theguardian.com/cities/2017/nov/28/sao-paulo-water-amazon-deforestation
- "Taps Start to Run Dry in Brazil's Largest City," www.nytimes.com/2015/02/17/world/americas/drought-pushes-sao-paulo-brazil-toward-water-crisis.html

Water Restrictions, California, USA

- "5 Things You Should Know About California's Water Crisis," news.nationalgeographic.com/2015/04/150406-california-drought-snowpack-map-water-science/
- "Could a Major California City Run Dry Like Drought-Stricken Cape Town?" www.mercurynews.com/2018/01/24/could-a-major-california-city-run-dry-like-drought-stricken-cape-town
- "California's Drought Is Part of a Much Bigger Water Crisis. Here's What You Need to Know," www.propublica.org/article/california-drought-colorado-river-water-crisis-explained

Educator's Note: Remind students that only reputable sources should be used for research, and all information should be properly cited. Consider conducting a mini-lesson on research skills before the activity or contact your Teacher-Librarian for more support.

Have students select a method to present their findings to their peers. Students may consider creating a visual presentation or video, writing a picture book, or designing an infographic or diagram. Collect all student research and presentation materials as evidence of student learning.

Encourage students to identify at least one way they can start contributing to a solution to local or global water issues. Provide each student with a sticky note and have them add their ideas to the *Why Do We Need Water?* display. Return to the display every few weeks to give students opportunities to share their progress or any new information they have learned. This is also a time to provide students with support if they are facing any challenges or barriers.



Extension: Consider inviting local elders or community members who are involved in local water issues to speak to students about their work and their commitment to finding solutions to water issues.

Go Further

Now that students have a deeper understanding of the global water crisis and recognize the impact water issues can have on people locally and globally, challenge students to choose one of the following options to continue to take action to contribute to positive change.

Option 1

Organize for students to share their presentations with other classes at a school assembly, in the library or in another shared space within the school. Alternatively, share students' presentations with families and the community on the class or school website.

Option 2

Host an awareness-raising event at the school where students, staff and community members can come to learn more about local and global water issues and how they can contribute to a solution. Consider building on the *Why Do We Need Water?* display by inviting participants to share what water means to them and how they can contribute to a solution.

Option 3

Participate in the WE Schools WE Walk For Water campaign to raise awareness for people and communities around the world that lack access to water. Students can also consider hosting a water walk to raise money to provide people with clean water for life.

Blackline Master 1: Understanding the Global Water Crisis

Which water issue will I explore? What geographic region does it affect?

What are the causes of this water issue?

How does this water issue affect people and the environment?

Blackline Master 1: Understanding the Global Water Crisis

What has already been done to try and solve this water issue?	Has it worked? Why or why not?
What else can be done?	
References	