

## Chapter 3: How Does Addressing Climate Change Make Us Healthier?

### Inquiry 3: Impacts on Health: Prescription for a Water-Healthy Community

- < **Provocations** – Video, 2 Stray, 1 Stay
- < **Question Generation** – Discussion questions
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“The 2030 Agenda for Sustainable Development provides a global blueprint for dignity, peace and prosperity for people and the planet, now and in the future. A few years into the Agenda, we see how civil society, private sector, and governments are translating this shared vision into national development plans and strategies.” ([UN: Why the SDG's Matter](#))



#### A. Provocation

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##### Videos

As a whole class, watch either the first video here [Clean Water & Sanitation \(Primary\)](#), [United Nations SDG6 Explained!](#) geared more for grades 3 and 4, or the next one suitable more for grades 5 and 6, [Clean Water & Sanitation \(Secondary\)](#) in order to get students thinking about water and how it's used everywhere to sustain life and remain healthy. This is also a great introduction to the UN's Sustainable Development Goal #6 of the same name. If you'd like to show more than one video to promote thinking on water another video is [United Nations SDG6 Explained!](#), and [SDG Goal 6 Explained: Clean Water & Sanitation](#)

Next, working in groups of 3, have students discuss their thoughts about the importance of water and then record the uses of water on a sheet of chart paper. The chart paper should be divided in half with one side showing personal water use and the other side displaying uses of water outside of their homes, within their community and beyond. Students can look through any print resources available on the topic as well as explore the internet to add to their work.

Have students assign each member of the group a number 1, 2 and 3. Gauge student progress to determine how long to provide for the class to record their thoughts and what they have quickly found through briefly researching. When they have had sufficient time to record, conduct the [2 Stray 1 Stay](#) strategy.

#### B. Question Generation

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At this point in the inquiry, we want to harness students' curiosity and build off of the provocations that have captured their interest by generating meaningful questions to continue to drive the learning process. This section will outline pathways for question generation depending on the provocation(s) that your class engaged with.

**Example Activity:**

To keep students engaged in knowing and thinking more about water, share the 10 slides from Nasa Kids [10 Interesting Things About Water](#) as well as the video [Water: Looking After Our Planet](#).

Students should independently record questions they have that they will ask their peers in preparation for the next step. Assign students into 2 large groups and have them share and respond to student-generated questions using the “[Harkness Discussion Method](#)”.

The teacher begins with an example to demonstrate the strategy. Below are some suggested questions. They may be useful to have handy throughout the inquiry to guide students in their understanding of water importance and its risks, based on the information gained through the provocation and conversation to date.

- How does water keep you healthy?
- At home, where do you get your water from? How is it cleaned before you drink it?
- At school, where does the water come from? Is it cleaned differently than at home?
- What would you do if there was a drought in your community or something that happened to the source that supplies water to your house?
- How do we take water for granted?
- How do you show respect for water?
- Do you think we will always have water available for human use? Why or why not?
- Can you think of places where we might be able to recycle water?
- Have you experienced any issues with clean water in your community? Have you heard of water problems elsewhere in Canada? In the world?



### **C. Knowledge Building**

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At this stage, students may be ready to engage in a group knowledge building activity. It will encourage students to open their minds to many alternative ways of thinking about the provocations and ideas that have been generated thus far in the inquiry process.

Divide the class into groups of 5 and use the [Jigsaw](#) method to explore the various water resources.

**Example Activity:**

The following offers 5 links to water information. Each jigsaw group (or expert group) should be assigned one of the links in order to review the information, discuss what they have found out and summarize in their mind or on paper the focus. After a determined amount of time, the members of the expert group will disperse and report the key details of what they learned together to their home group.

1. [A Glass of Dino Pee](#)

2. Single-Use Plastics: [The Problem with Plastic Pollution](#), [The Water Project: Bottle Water is Wasteful](#)
3. [Fun Ways to Teach Kids to Save Water](#)
4. [How to Filter Water: DIY Science Experiments for Kids](#)
5. [Goal 6 Infographic](#), [The Great Gulp: Water Issues & Facts](#) (page 4 only)



## D. Determining Understanding

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Use responses to inform and guide the learning process. They can provide insight into which concepts need clarity, what many students are already well informed about, and a general direction that many students want to pursue.

Read the story [The Water Walker](#) by Joanne Robertson to the class or have them watch and listen to the read aloud on the link below:

Choose from the following stories or read them all to explore how access to clean water addresses other of the [UN's Sustainable Development Goals](#). Have students explore which goals, beyond [#6 Clean Water and Sanitation](#), link to water issues, in particular goal #5 Gender Equality and goal #10 Reduced Inequalities. This may also be a time and place to discuss Boil Water Advisories in many Indigenous communities in Canada and the important people fighting for justice like Autumn Peltier. Here are two videos of Autumn's story, one when she began her advocacy work

(<https://www.youtube.com/watch?v=zq60sr38oic&t=83s>) and the other where her work has taken her as a water activist (<https://www.youtube.com/watch?v=A33XRMLBbOc&t=5s>)

- [We Are Water Protectors](#) by [Carole Lindstrom](#), illustrated by [Michaela Goade](#)
- [Nibi's Water Song](#) by [Sunshine Tenasco](#), illustrated by [Chief Lady Bird](#)
- [Walking for Water](#) by [Susan Hughes](#), illustrated by [Nicole Miles](#)
- [One Well](#) by [Rochelle Strauss](#) (watch the [trailer](#)) (download the [teacher's guide](#))



## E. Pursuing Learning

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At this stage, students may begin research to pursue some of their questions, or some of the following activities could be integrated into the process to ensure that students have an understanding of foundational climate science. The activities listed below will enrich the understanding of climate change.

Have students read the information found on pages 3 & 4 in the following link and complete a home water audit by completing the Water Wise Student Worksheet on page 6.

[Water in the World: Water Sources & Conservation](#) Once students complete their audits have a discussion about their findings. There are guiding questions provided in the link as well. An option is to play Water Conservation Pictionary as well, found on page 8 as a fun activity to reinforce the concept.



## F. Consolidation

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This step is designed to encourage students to integrate and synthesize key ideas. When students make connections and see relationships within and across lessons, it helps them to solidify knowledge and deepen their understanding.

Explore the graphic story called [Chakra the Invisible Girl: Global Goals and Sanitation](#) created by Stan Lee, Sharad Davarajan and Gotham Chopra, written by Ashwin Pande. This resource helps to connect the Global Goals to their targets and to each other and then focuses on water. After reading the comic, have students help Chakra and Mighty Girl match the goals to their target (pages 7-10) and complete any of the other 4 activities that follow at the end (pages 15-18). Since students won't be able to electronically answer the questions you might want to print the pages for their use.

Cautionary Note: If you use Chakra's Trash Challenge the answers may differ from the ones indicated in the booklet as recycling programs and how to sort materials varies from community to community. Chakra's Save Water Challenge suggests taking a bath instead of a lengthy shower, however this would be a great discussion point because what you'd want to encourage are quick showers where you can turn the tap on and off while cleansing.



## Assessment Idea

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Teachers will assess learning at different points throughout the inquiry using multiple methods. The following assessment provides an alternative evaluation method to standard quizzes and tests, that can be used after consolidation or at any point in the lesson to check for understanding.

Create a [poster](#) to promote the importance of one of the SDGs in your own community, with goal #6 linked to water and sanitation. The World's Largest Lesson has a set of comic posters to accompany each of the 17 goals. [Download sample posters here](#) for inspiration!



## Take Action:

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Allowing time for students to take action is an essential part of the learning process on climate change, as it empowers students and eases their eco-anxiety.

**Ask the students** what they want to do to positively impact climate change. List their ideas and come up with a plan to put their action in place. Use the choice board activities the students chose to share information with other classes or the community.

While the future is uncertain, there are many examples of positive actions happening all around the world, and too often these stories do not get media coverage (check out [The Happy Broadcast](#) to get some good news for a change!).

Finding actions that students can get involved in is paramount and in the subsequent thematic inquiries there are many examples of school projects and activities. As we collectively oscillate between optimism and outrage, stories of the past can also be important for active hope pathways.

[A ready-made vehicle idling campaign](#) (NRCAN, 2015)

Create their own anti-idling or idle free posters for their community.  
[Catalogue of Potential Idling Reduction Campaigns](#) (NRCAN, 2015)

Educate the school through different announcements sharing “waste and water facts”. Post the garbage collection graph on the wall outside the classroom. Do a second schoolyard garbage audit a month later. Put the second graph on the wall. Celebrate successes.

- [How to Help the Earth By The Lorax - Read Aloud](#) by [Tish Rabe](#), illustrated by [Christopher Moroney](#) and [Jan Gerardi](#)

Create some announcements to share with the school.

- **Play the Freerice game from UN World Food Programme (WFP)**
  - Global hunger is one of the most pressing social issues, but it’s also the most solvable. **Freerice** is a free online educational trivia game where people of all ages can do their part—simply by playing. Every right answer on Freerice triggers a real financial donation to the [UN World Food Programme \(WFP\)](#) from sponsors worth about 10 grains of rice.
  - The game has five difficulty levels and over 20 categories of questions to choose from, such as English vocabulary, Languages, Science, Humanities, World Landmarks, and a new category called “Coronavirus: Know the Facts.”
  - Use your time and knowledge to help provide food for people in need. The game is available online at [freerice.com](#) or as a free app in the android or iOS app stores.
- [UN Climate Action Superhero: Become a “Veggie Vindicator”](#)
- “Educate everyone on why to eat - and appreciate - eating more veggies”.
- Collect non-perishable food for your local Foodbank at different times of year.

- Host a local food festival showcasing local and nutritious foods that come within a certain distance from your community
- Start a Meatless Monday campaign at your school challenging students to eat more plant
- [Become a Water Wizard!](#) A water wizard “keeps dangerous plastics from getting into the ocean and makes sure you don’t let water go to waste” (UN, 2020).
- Explore the [Water Awareness and Action Campaign Kit](#) from Ontario EcoSchools (2016)
- [Create a Campaign for World Water Day](#) (March 22) or World Water Week (the week of March 22) (Ecoschools, 2017 ).
- [14 Ways You Can Help the Earth...Starting Now](#) (CBC).
- Plan and Promote Participation in [The Great Gulp](#) (raising awareness about drinking water and single-use plastic bottles) (Ecoschools, 2021).
- [Join the Changemaker Classroom](#) and commit to a Changemaker Project where 1 global goal is selected and a local action project is implemented (The Changemaker Classroom).
- [The Worlds To Do List](#): Select one of the UN Goals and one or more of the suggestions on the “to do” list to act on.
- Create, advertise and promote your own “day” related to one of the SDG goals such as [World Toilet Day](#) that brought attention to sustainable water sanitation and climate change (UN, 2020).
- Students can choose to download the “[SDG in Action](#)” app onto their phones to learn more about any of the 17 goals, find out what can be done and then create or join an action team.-based foods
- Create a plant-based cookbook, collecting recipes from families in your school. Sell the cookbook as a fundraiser and donate the money to a local Foodbank.

## Action Project Examples

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How could you use these great examples to come up with action projects with your students?

- Feeding Our Community - Ruth Betts Community School - Flin Flon, MB (2019)
  - Students at RBCS built a community garden to increase the availability of affordable fresh produce. Students acquired the knowledge to build, grow, and harvest their own fresh fruit and vegetables and how to utilize them in daily meals and snacks. The garden contains a plant medicine wheel,

ceremonial plants, and a three sisters garden, incorporating traditional knowledge. [See their project here.](#)

- VegFest - E.L. Crossley Secondary School- Pelham, ON (2016)
  - E.A.R.T.H. club members at E.L. Crossley hoped to inform their fellow students about the positive impacts a plant-based diet can have on the future of our planet. Students organized a week of veggie-friendly events with the support of various local community partners. The week's events included a vegan cooking class with a local natural chef, a screening of the documentary Cowspiracy, a smoothie day, vegan salad bar extravaganza, cafeteria games, and a vendor day. VegFest received an overwhelmingly positive response and high levels of student participation each day. [See their project here.](#)
- [Connect with Nearby Nature](#) - Ecoschools Canada
  - "Nature" is often understood as a place far away from human involvement. However, humans exist within natural systems all the time, even in urban environments! The [Connect with Nearby Nature](#) action incorporates outdoor, environmental learning to foster relationship-building between people and place, including all the more-than-human others who also call that place home. Students will get to know their ecological neighbours by practicing inquiry, observation, identification, research, and communication skills to build their own nature-connections and knowledge, and share learnings with their communities. Specifically, this action involves the creation of **field guides**, **maps**, or **outdoor signage**. See resources and details [here](#).
- Daily Actions to Make a Difference
  - This resource offers a page of ideas for each of the 17 UN Sustainable Goals. Students can get inspired by the suggestions offered and select some they can follow to make a difference in the world.  
[170 Daily Actions to Transform the World](#)