

Water at School Toolkit

In this toolkit you will find:

Title	Page No.
School water survey	2
Why water works	3
Water talk	5
Water access scan instructions	6
Water access scan tool	7
How to promote water	8
Passport to hydration scavenger hunt	9
Passport to hydration scavenger form	10
How to make fruit-infused water	11
Water wheel game	14
Photovoice guide	16
PA announcements	20
Newsletter inserts	21
Tips for a water policy	22

School Water Survey

1. How much water do you drink in a typical day (1 cup = 8 oz or 250 mL)? (Circle one) Less than 1 cup 1-3 cups 4-6 cups 7-9 cups 10 cups or more

2. How much of your daily water intake do you drink at school? _____%

3. What keeps you from drinking more water at school?

- □ No fountains available
- □ Fountains are too dirty
- □ Fountains do not work/low pressure
- □ School water is unsafe to drink
- □ I don't have money for the water vending machine
- □ School water does not taste good
- □ I drink other types of beverages instead
- □ I don't really think about drinking water
- □ I don't want to have to use the school restroom
- Other:_____
- □ Other

1. Would you drink more water if there was a dedicated water-bottle filling station?

(Circle one) Absolutely · Yah, sure! · Maybe so · Doubtful · No way!

Grade: Gender: Male · Female

Why Water Works

- Water helps everything work in your body
 - Our bodies are made up of ~60% water, but we lose a lot of it during the day
 - o Water helps to move nutrients and oxygen to every cell in our body
 - Water helps to remove waste and toxins
 - Water helps to regulate temperature
 - Water lubricates all tissues and organs in the body
 - Too little water can cause serious health problems, but even mild dehydration can cause headaches, irritability, poorer physical performance, and reduced mental functioning
- Water helps you perform
 - Drinking water helps cognitive function
 - Drinking water helps prevent cavities and weight gain
 - Drinking water helps your muscles and joints move
- Water is inexpensive
 - Tap water costs less than 1 cent per gallon
 - Drinking tap water instead of one daily bottled beverage can save up to \$350 a year
- Water tastes good
 - Water is tasty and refreshing cold or room temperature it's up to you
 - Infusing water with fruit, vegetables, or herbs is an easy way to make water enticing
- Drinking tap water is good for the environment
 - Drinking tap water saves energy since there is no need to make plastic bottles
 - o Drinking tap water reduces the number of plastic bottles that end up in landfills
- Tap water is safe to drink
 - Tap water is tested for contaminants more often than bottled water
- Water is easy to find
 - Tap water can be found almost anywhere, including schools, restaurants, parks, community centres, and homes
 - We also get some water through the foods that we eat

- We should drink enough water every day
 - The amount you need depends on your age, amount of muscle and level of physical activity
 - It is always best to choose water when you are thirsty
 - Have a refillable water bottle or glass with you during the day to make it easier to drink small amounts throughout the day
 - You will need more water when you are active and during hot weather
 - Although it is rare, drinking too much water all at once can be harmful

Water Talk

- Speak with administrators and teachers:
 - Is water served at all school meetings and events? Are there competing beverages served?
 - Are students allowed to access water during instructional time?
 - Are there any restrictions about where water can be served or consumed at school?
 - \circ $\,$ Are there preferences about how and where students can access drinking water?
 - Does the school or school board have plans to renovate or build new facilities? If so, can these plans include improved access to drinking water?
 - Share Why Water Works (page 3) to help make the case for having drinking water available at all school events
- Speak with food service staff:
 - \circ Is drinking water available when food is served? What is the source of the water?
 - Are cafeteria staff willing and able to assist promoting water?
 - Is there money to purchase cups or reusable bottles, or to put toward purchasing new water sources?
- Speak with custodians:
 - Are there procedures for ensuring the school's water sources are kept clean and working?
 - Is staff willing and able to help clean and maintain school water sources (including new ones)?
 - Would maintenance staff be available to assist with installation of new water sources?

Water Access Scan Instructions

Use this tool to learn more about the sources of water at school. Walk down each hallway of the school and visit the cafeteria and gymnasium. For each water source, complete a new row in the table below.

For each water source, you will find out the following:					
Where is it located?	Record the floor number or nearest room number				
What is the type of water source?	Describe the type of water source: no water source, a water fountain, water cooler, large insulated container, water bottle filling station, un-insulated pitcher or jug, individual bottled water, tap with water filter, or other (describe)				
Is water available at this source?	Check "yes" if water is available at this source (i.e. water comes out of the dispenser and is drinkable), "no" if water is not available. If you check "no," describe why not (i.e. a jug is empty, dispenser is broken, water is turned off)				
Who can access this water?	Check whether the water source is accessible to staff, students, or everyone. Check all boxes if it's available to all.				
How much time does it take to get 8oz of water?	Use a stopwatch to measure how long it takes to fill an 8oz cup for each dispenser				
What is the temperature of the water?	Use digital thermometer to measure temperature in degrees Celsius (using the sample you poured to measure time to fill 8oz cup)				
What is the appearance of the water source?	Check whether the water source appears clean or dirty. Describe the appearance if dirty (i.e. rust, debris, mold, gum, trash)				
Were cups available at this water source?	Check whether cups are offered. If so, record the type of cup available.				
Is there any signage about drinking water near this water source?	Make note of any signs that promote or discourages water.				
Was a photo taken?	A photo should be taken of each water source. Assign a number to the photo and record it in the first column.				
General notes	Put any other notes about the water source here				

Water Access Scan Tool

#	Where is the water source located in the building?	What is the type of water source?	Is water available at this source?	Who can access this water?	Time to fill 8oz cup	Temp of water °C	Appearance of water source (Take note of dust, debris, rust, mold, etc)	Were cups available at this water source?	Signage about drinking water at this source?	Was a photo taken ?	General Notes
	Floor #: Nearest room #: Location (e.g. cafeteria, gym): 	 Water fountain Water cooler Large insulated container Water-bottle filling station Un-insulated pitcher or jug Individual bottled water Tap with water filter Sink used for obtaining drinking water Other: 	Yes No No, why? Empty Broken Other:	 Staff, Students General public Members 			 Clean Dirty Type of dirty: Clogged Moldy Rusty Trash in basin Stagnant water Other: 	 Yes No If yes, what was the material of the cups? 	 No signage Signage promoting water Signage discouraging drinking water Notes: 	□ Yes □ No	
	Floor #: Nearest room #: Location (e.g. cafeteria, gym):	 Water fountain Water cooler Large insulated container Water-bottle filling station Un-insulated pitcher or jug Individual bottled water Tap with water filter Sink used for obtaining drinking water Other: 	 Yes No If No, why? Empty Broken Other: 	 Staff, Students General public Members 			 Clean Dirty Type of dirty: Clogged Moldy Rusty Trash in basin Stagnant water Other: 	Yes No If yes, what was the material of the cups?	 No signage Signage promoting water Signage discouraging drinking water Notes: 	□ Yes □ No	
	Floor #: Nearest room #: Location (e.g. cafeteria, gym): 	 Water fountain Water cooler Large insulated container Water-bottle filling station Un-insulated pitcher or jug Individual bottled water Tap with water filter Sink used for obtaining drinking water Other: 	 Yes No If No, why? Empty Broken Other: 	 Staff, Students General public Members 			 Clean Dirty Type of dirty: Clogged Moldy Rusty Trash in basin Stagnant water Other: 	 Yes No If yes, what was the material of the cups? 	 No signage Signage promoting water Signage discouraging drinking water Notes: 	□ Yes □ No	

How to Promote Water

Use these suggestions to make water the drink of choice at your school.

1: Share the reasons why water is wonderful!

- Post signs that promote water near water fountains and dispensers
- Include messages about the benefits of water in school newsletters and other materials sent to parents and families. Use Why Water Works (page 3)
- Share fun water facts as PA announcements (page 20)
- Add messages and activities related to the benefits of drinking water into lesson plans for various subjects

2: Find out how easy it is to choose water at school

Involve students in completing a school Water Access Scan (page 6-7). You can also include the sources of competing beverages available in or near the school (e.g. beverages served at school events, juice vending machine, nearby convenience store, cafeteria, etc).

3: Ensure that safe and appealing drinking water is accessible

- Serve water at events and celebrations
- Look for funding to install hydration stations at your school
- Work with your school's custodians to develop a cleaning and maintenance schedule for the school's water sources
- Order refillable water bottles for students
- Create a process to allow students to access water during instructional time
- Create a policy about access to drinking water during the school day and serving municipal water at all school events and celebrations (and amend wellness policies to include promoting drinking water)
- Sell refillable water bottles as a school fundraiser

Passport to Hydration Scavenger Hunt Instructions

Have students create a poster for each of the water messages below. Hang the posters throughout the school, above water fountains or hydration stations. Challenge students throughout the school to find the water messages and complete the Scavenger Hunt Form (page 10).

Water messages:

- 1. Choose water first to quench your thirst!
- 2. Water brings oxygen and nutrients to working muscles
- 3. Your body is made up of ~60% water
- 4. Water cushions our organs and joints
- 5. Water is used to make sweat that keeps us cool on hot days
- 6. Keep your water cool. Add a few ice cubes to your water bottle and fill with cold water
- 7. Wash, rinse, and sanitize your water bottle daily

Passport to Hydration Scavenger Hunt Form

Take your water bottle. Find fountain messages!

Each fountain has a sign promoting tap water. Each sign has a unique health message. Find each sign and record the 7 different health messages below. While you are there, fill your bottle full of tasty water!

Message #1:		
Message #2:		
Message #3:		
Message #4:		
Message #5:		
Message #6:		
Message #7:		
Name:	School:	Grade:

How to Make Fruit-Infused Water

Fruit-infused water tastes best when the fruit is left to infuse for 20-30 minutes. Once you drink the water, the fruit that is left behind will not infuse as much flavour. Therefore, add more sliced fruit when adding more water to the jug. Be sure that the first batch of fruit has remained very cold with ice and was not left to come to room temperature before adding any new sliced fruit. Keep cold sliced fruit cold by keeping it iced or in the fridge!

Don't get sick!

Follow these safety tips when buying, storing, handling, and preparing fresh fruit for fruit infused water to help prevent food-borne illness

Picking

- Look at the fruit carefully and do not buy ones that are bruised or damaged
- Cut fruit must be stored at a low temperature. If you buy pre-cut fruit, bring along a cooler and cold pack to keep it cold. Otherwise buy whole fruit and cut at school.

Storing

- Put fresh fruit in the fridge immediately after buying, if it needs refrigeration (e.g. precut fruit)
- Keep fruits separate from meat, poultry, seafood, and their juices in the fridge to avoid cross-contamination
- Keep your fridge at the proper temperature (4°C or below). Use a refrigerator thermometer to check.

Preparing

- Wash your hands for at least 20 seconds using hot water and soap
- Clean, rinse and sanitize your utensils, cutting boards, and counter-tops with hot soapy water and a sanitizer. Avoid using sponges or other materials that are difficult to keep clean and dry, as these can spread bacteria around.
- Put fresh cut fruit in the fridge until ready to serve
- Throw out leftover cut fresh fruit after two hours of it being out of the fridge unless it is kept on ice

More information:

Canadian Partnership for Consumer Food Safety Education <u>http://befoodsafe.ca/be-food-safe</u> Health Canada's information on safe food handling of vegetables and fruit <u>http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/food-aliment/handling-manipulation-eng.php</u>

Fruit-Infused Water Recipe

Preparation time: 20 minutes

This recipe fills a 6 litre water jug with a pouring spout. It can be adjusted for containers or pitchers that hold less water. There is no "right or wrong" amount of fruit for creating fruit-infused water. The flavour is best with the first infusion of fruit and will be reduced if you add more cold water to the jug without adding more fruit.

Ingredient options:

Lemons, limes, oranges, strawberries, pineapple, blueberries, and green apple slices. NOTE: bananas, raspberries and melons do not work well for fruit-infused water

Berry Blast

- 3 oranges
- 2 lemons
- 20 strawberries
- 1 cup blueberries
- 10 cups ice (or 1 bag)
- 5 Litres (20 cups) water

Lemon-Lime Apple Infused Water:

- 3 lemons
- 4 limes
- 3 Green apples
- 10 cups ice (or 1 bag)
- 5 litres (20 cups) water

Materials:

• Dish soap, water, cutting boards, knives, tongs, water jug or water pitcher

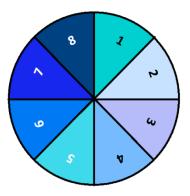
Method:

- Wash your hands with hot water and soap, rubbing to make bubbles for 20 seconds
- Clean and sanitize counters before starting to prepare any fruit for infused water
- Wash, rinse and sanitize jug, cutting board and knife and drip-dry in a clean air drying rack
- Wash fruit well under fresh, cool, running water
- Use a clean produce brush to scrub items that have firm surfaces (e.g. oranges, lemons, and limes)

- Cut fruit so the flavour in the flesh will infuse into water. For example, slice oranges, lemons, limes and apples into round slices or wedges. Cut off tops of strawberries and slice in half.
- Place cut fruit on/into a separate clean plate or container/zip type bag to keep them clean
- If fruit is not being used immediately place on ice or in fridge
- When ready to make infused water, place fruit in water jug with clean tongs and add water and ice
- Keep the ice coming! The fruit must be kept cold at all times.

Water Wheel Game

Create a spin wheel that has eight different coloured wedges and use it to ask students water-related questions in a fun way. Each number corresponds with the questions and answer below.



Facts/Myths about Tap and Bottled Water

Q1. The price of bottled water is more than 1,000 times the price of tap water. Fact or myth? Fact

- Bottled water can cost anywhere from about eight cents per 500 ml bottle of house brand spring water bought in bulk at a large grocery store chain to \$2.50 for a high-end brand like in a vending machine
- Tap water, meanwhile, costs Canadians only a fraction of a cent per litre. And remember: if you drink tap water at school, you're drinking for free!

Q2. Bottled water is cleaner, and thus safer, than tap water. Fact or myth?

Myth, The reality is:

- Tap water is regulated by Health Canada and the provinces and territories.
 The <u>Guidelines for Canadian Drinking Water Quality</u> spell out the maximum levels of potentially harmful substances that are allowed in drinking water. Municipalities test their water sources constantly to make sure they are within these limits.
- Bottled water is not subject to the same guidelines because it is classified as a food and falls under the <u>Food and Drugs Act</u>. Aside from arsenic, lead and coliform bacteria, the act does not set limits on specific contaminants but says simply that food products cannot contain "poisonous or harmful substances" and must be prepared in sanitary conditions.

Q3. When you feel thirsty, you are already in the early stages of dehydration. Fact or myth? Fact

• When you are first feeling thirsty your body is already a little dehydrated. This level of dehydration can result in poor mental capacity (thinking), headaches, feelings of being tired, stomach-aches, decreased athletic performance, and moodiness. That afternoon fogginess and sleepiness may be due to not drinking enough water.

Q4. I need to drink exactly 8 glasses of water a day. Fact or Myth?

Myth, The reality is

 Our individual water needs vary, so it's difficult to measure the exact amount that will keep us healthy. Under normal circumstances, most of us can trust our sense of thirst to prevent dehydration. Most people can meet their hydration needs simply by drinking water with meals and when thirsty.

Q5. Water bottles are environmentally-friendly because they can be recycled. Fact or myth? Myth, The reality is:

- Only about 70% of plastic drink containers in Canada are recycled, according to the Canadian Beverage Association, although recycling rates vary by province
- Some of that plastic waste gets shipped abroad for recycling creating more greenhouse gases in the process
- Roughly 1.5 million tonnes of plastic are expended in the bottling of 89 billion litres of water each year around the world
- Besides the sheer number of bottles produced, the energy required to manufacture and transport these bottles puts a huge strain on the earth's natural resources and releases many toxins into the environment

Q6. What percentage of your body weight is water?

• The human body is approximately 60 per cent water and every system in our body uses water

Q7. What are some signs of dehydration?

- Thirst
- Dry lips and dry mouth
- Flushed skin
- Headache
- Dizziness and fainting
- Dark yellow, strong smelling urine
- Low blood pressure and increased heart rate

Q8. Name a few things that increase your daily need for water

- Physical activity
- Illness
- Hot or humid weather
- Wearing heavy sports equipment, like in hockey or football

Photovoice Guide

Day 1 (Approximately 45 minutes)

Materials:

- "Trash" picture
- Pens

- School Map (if available)Photo Taking Tips sheet
- Digital cameras or devices
- Clipboards (1 per group)

Talking Points:

- 1. What is Photovoice? Photovoice introduction
 - Explain that Photovoice is a tool that people use to advocate for some environmental or social change in their school, community, etc. Photos are a powerful way to communicate a story or a message they can be much more powerful than words.
- 2. Using TAP Photo analysis
 - Show students the "trash" picture and ask them to pretend this photo was taken at their school. Walk them through the TAP process, asking them to identify the T-A-P as a group.
 - T: Tell others about what you see
 - A: Analyze the strength or problem
 - P: Propose something you can do about it
- 3. Making the Water Connection Water Access at School
 - Assess student opinion about water access at school. Encourage all students to share. Some prompt questions are: What do you think of school water fountains? Do you drink from all of the school water fountains? Why or why not? How might we encourage students and staff to drink more water at school?
 - Explain that they will use the Photovoice tool today to take pictures of anything to do with getting drinking water at school where they get water, why it's important to get water, things that help or hinder their water drinking, etc.
- 4. Before Getting Behind the Lens Photo taking technique
 - Familiarize students with the different "views" of photo taking as well as explain camera functions (e.g. focus, zoom, flash, etc.) and offer tips for effective photo taking and safety reminders (Pass out the 'Photo Taking Tips sheet')
- 5. Getting Behind the Lens Photo taking
 - Divide students into groups. Group members should take turns taking photos, using different vantage points as inspiration arises

- Give the groups a time limit and ask them to return to the classroom to debrief and return cameras when time is up
- 6. Before Day #2
 - Inform students that they will be applying the TAP concept (review TAP if necessary) and to think about their photos and experiences and what they want others to know about them
 - Download photos from the camera (or have students submit them by email) and name them with the group name. Print out photos, 4 per page

Day 2 (Approximately 45 minutes) Materials:

- Picture prints
- Paper clips
- TAP worksheets
- Pens
- Tape

Talking Points:

- 1. Using TAP Photo analysis
 - Have students work with the same groups and pass out their picture prints to them. Have students pick their top three photos, number them, and fill out the TAP comments for each of the three photos.
- 2. Group Photo and Survey Sharing
 - Have students share their top three photos with the rest of the class
- 3. Next Steps
 - Let students know that, if they'd like, their Photovoice work can be shared with School Board policy makers to try to make a change in the school
 - Students may want to choose one presentation for delivery to the policy makers, or develop a master presentation that pulls from every team's presentation
 - Lead a group discussion on the kinds of advocacy efforts that were highlighted during the "P" part of the Photo Sharing activity. Emphasize the importance of what the students feel they can do to try to make a change.

TAP Worksheet

Photo #1:

T: Tell others about what you see

A: Analyze the strength or problem

P: Propose something you can do about it

Photo #2:

T: Tell others about what you see

A: Analyze the strength or problem

P: Propose something you can do about it

Photo#3:

T: Tell others about what you see

A: Analyze the strength or problem

P: Propose something you can do about it

School: ______ Team Name: ______ Date: _____

Photo-Taking Tips

Tips for taking good photographs

- Try different angles
- Try different points of view
- Keep the sun to your back, or to the side
- Is your subject in the center of the photo?
- Does your subject fill the photo?

Tips for avoiding common mistakes

- Keep your finger away from the lens
- Don't cover the flash
- Stand about three to eight feet away from your subject
- To prevent blurry pictures, hold your elbows close to your sides, and hold your breath when you press the shutter (button)

Safety and Respect with PhotoVoice

- Stay safe! Make sure you are safe when you take the picture. For example:
 - □ Stand on a solid surface
 - □ Look before you step into or cross a street
 - □ Be aware of things around you, like traffic
- Ask permission. Always ask permission before taking people's photos for this project. Ask them to sign a photo consent form. If people can be recognized in a photo, ask permission before showing their picture outside your group.
- Be respectful. If certain people don't like their photo taken, respect their feelings.
- Be prepared. Be ready to explain about the project to family, friends, or strangers, if they ask what you are doing. A simple explanation is: "I am part of a PhotoVoice project exploring way to improve access to and promoting of drinking water. We are taking photographs of our observations and talking about them with other people in our group. Thank you for letting me take your picture."

PA Announcements (fun water facts)

Elementary

Did you know that most of your body is made up of water! We lose water by sweating and breathing, and peeing so we need to drink lots of water every day. I'm sure glad we have lots of water fountains around the school!

There is the same amount of water on Earth as there was when the Earth was formed. The water from your faucet could contain molecules that dinosaurs drank! Follow the lead of the dinosaurs, and drink water every day.

Each day, we also lose a little more than a cup of water (237 ml) just by breathing. Stay hydrated with water!

Secondary

Water regulates the Earth's temperature. It also regulates the temperature of the human body, carries nutrients and oxygen to cells, cushions joints, protects organs and tissues, and removes wastes.

Did you know: Refilling a half-liter water bottle 1,740 times with tap water is the equivalent cost of a 99 cent water bottle at a convenience store. Enjoy tap water: the cheaper, eco choice.

Each day, we also lose a little more than a cup of water (237 ml) just by breathing. Stay hydrated with water!

Did you know that there are 36 teaspoons of sugar in a Slushy? That's over a cup of sugar in each drink! Choose water first to quench your thirst.

Game Day!! Good luck to all those [insert any sport] players! Don't forget to stay hydrated! Drink water before, during and after moderate activity for best results.

Newsletter Inserts

Water's Cool in Our School!

Does your child drink enough during the day? Encouraging children to drink water is an easy and low-cost way to promote health and learning. Water is important for almost everything that happens in the body. By itself, the brain is made up of 80 per cent water. Throughout the day, children should be drinking enough water to be sure that their bodies can work at their best. This is why our school will be actively promoting water as the beverage of choice!

We are also encouraging students to bring their own refillable bottle of water to school every day. Children will be allowed to keep this bottle on their desks at all times. We will be asking them to take it home each night, so that it can be thoroughly cleaned.

Cleaning bottles

Bottles should be washed daily in warm, soapy water, rinsed and left to air-dry upside down. The nozzle of a sports cap should be opened and flushed through. The bottles can also be washed in a dishwasher, taking care to separate the cap from the bottle.

Tips for a Water Policy

- 1. Have clear goals. For example:
- Safe, free, appealing drinking water is accessible without restriction all day
- All children have an equal opportunity to drink water
- The curriculum includes education about drinking water-related issues, especially the health benefits of drinking water
- Safe tap water is promoted over single-use bottled water
- The policy is accepted and embraced by the whole school community, including school administration, teachers, food services staff, facilities manager, students and parents

What to include

• Water Delivery Options

□ Types of water delivery options and vessels for serving water

• Access

- □ Location of water sources
- □ Time water sources are available for students to use
- □ Number of water sources
- □ How water sources will be maintained
- □ When and where students are allowed to use reusable water bottles

• Promotion and Marketing

- □ School activities to promote water consumption
- □ School staff are role models of healthy beverage consumption

• Education

Information about the benefits of drinking water integrated into the formal curriculum

• Safety and Quality

- □ Contaminants to be tested
- □ Frequency of water quality testing
- □ Plan for communicating results of water quality testing

• Monitoring and Evaluation

- Outcomes to be measured
- □ Frequency of monitoring
- □ Plan for disseminating evaluation findings
- □ Making improvements based on evaluation