

Waterloo Wellington Children's Groundwater Festival 2026

Here's your quick guide to the activities at this year's Festival. Each activity runs for 5 to 10 minutes led by a volunteer from a local high school, university or an industry expert. Visit the activities that are right for your students. Refer to the map for the location of each activity to help you plan your day.

Be a groundwater detective

Throughout the day, find the 10 water drop sites throughout the Festival grounds to answers questions about water. Pick up a paper copy of the question sheet at the information booth or scan the QR code to play online.



Activity Centres Zone A

Activity	Description	Grades	Map location
Do the Limbo	How does changing oxygen levels affect fish? Do the Limbo to learn how our everyday activities can affect oxygen in the water. Learn how changing oxygen levels can affect fish and what we can do to help.	5	A
Eagle Survivor	Have you ever seen a Bald Eagle? Play this fun game and pretend to be a bald eagle feeding its family. Learn about eagles, how they catch their food for survival and the importance of clean water for the fish they eat	3,4	A
Just Add Rain	What can you do to help butterflies and use less water? Learn the importance of native plant species within our communities and the differences between manicured and naturalized lawns.	All grades	A
River Safety	Do you know what to do around a dam? Rivers are fun and enjoyable but can also be dangerous. Learn how to stay safe when you are close to a dam.	4	A
Wet 'N Wild	Meet interesting creatures that depend on water. Learn about their habitats and the four main ingredients for all life to survive; food, water, shelter, and space.	2,4	A
Only Rain Down the Drain	What happens to the rain in cities? Learn about storm drains and why it is important only rain go down the storm drain.	2,4	A
Stormwater Management	How does stormwater travel over land, into drains, and eventually into rivers and lakes. How surfaces like pavement affect water flow, how pollutants are carried by runoff, and how stormwater management systems—	2,4	A

Activity	Description	Grades	Map location
	help protect water quality, reduce flooding, and support healthy ecosystems.		
Watershed Model	What is a watershed? Use an interactive map to visualize how water flows through the Grand River watershed.	3,4	A
All the Water in the World	How much water is on Earth? Learn how much of the water on Earth is drinkable, fresh water and what we can do to conserve this important resource.	All grades	A
Power of Water	Have you ever wondered what are renewable energies? By shining a light, creating wind, and turning a handle, students generate power to light small LEDs while learning how hydroelectricity works and its history in the Waterloo Region.	5	A
Smart Sippers	Ever wonder how your body uses water? Learn how water helps your body work properly.	All grades	A
Is your Water Well	Do you know why tap water is safe to drink? Learn the difference between water testing for municipal and private water sources and steps taken to keep drinking water safe to drink.	4	A
A Day at the Beach	Do you like to swim at the beach? Learn what to look for when checking water to know when to go swimming.	2,4,5	A
Aquatic Invertebrates	Students will get the chance to identify and classify live aquatic invertebrates found in local wetlands and stream.	2,3	A
Rainy Day in the Urban Forest	Are trees important to water? Play this fun ball toss game to learn about the important role trees play.	3,4	A
Water Brain Challenge	How well do you know water? Two teams engage in a friendly game of not so “trivial” water facts.	All grades	A
Geotech/Environmental Drilling	Explore the basics of geotechnical and environmental drilling through a close-up look at a real drill rig, along with its specialized tools and equipment.	All grades	A

Activity Centres Zone B

Activity	Description	Grades	Map location
Low Salt Diet	Is winter salt a problem for water? Salt is an important tool for removing ice in the winter. It is also harmful to water. Learn about the tools that you can use to use less salt. Tour a snowplow to find out how municipalities are using less salt on the roads.	All grades	B

Activity	Description	Grades	Map location
3xs a Day	How much water do you use when brushing your teeth? Learn how simple changes while brushing your teeth can help save water.	3, 5	B
Lather Up!	How much water do you use when taking a shower? Compare how much water you use when taking different lengths of showers and what you can do to use less.	3, 5	B
Royal Flush	How much water does a toilet flush? Learn how toilets work and the role toilets can play in how much water you use at home.	3, 5	B
Watermain Break	What happens when a watermain breaks? Learn how operators fix underground pipes and try fixing your own watermain break.	3,4	B
3D Sandbox	This activity helps students learn what a watershed is, through an interactive 3D augmented reality sandbox.	All grades	B
'AQ' The Amazing Aquifer	Where can we find groundwater? Take a groundwater adventure with Wally the worm and Deanna the water drop to learn about groundwater's home.	2, 3, 4	B
Frosty Minerals	What is a snowflake? Learn what a mineral is through a hands-on exploration of snowflakes.	4	B
Microplastics	Learn about microplastics, what are they and how do they enter our water sources	All grades	B
Motion of the Ocean	What's going on in the ocean? Learn how the chemical properties of water (temperature and salinity) can cause water circulation.	3, 5	B
Greenhouse Gasses	Students will learn what Greenhouse Gases are, where they come from, and how they connect to Climate Change. Students will explore ways to reduce emissions.	5	B
Quack Attack	How can an oil spill affect wildlife? As a wildlife biologist, you will study feathers when they are wet, dry or soaked with oil. Then try cleaning the feathers to find out how successful this would be on a larger scale.	4	B
Water Cycle	Do you like to play tag? Have fun being part of the water cycle and learn how water is always moving and changing between three different states.	2, 5	B
What's Under Your Feet	Is there a difference between soil and dirt? Learn about both in this activity.	3	B
Pumping Station	Water needs to move around. Visit a water pumping station and learn from the operators that use it every day.	All grades	B
Well Model	How do we know how much groundwater is underground? Learn about the water table and what tools we use to measure how much groundwater is hidden beneath our feet.	3,4	B

Activity Centres Zone C

Activity	Description	Grades	Map location
Settler Water Race	How easy was it to get water to your home in pioneer times? Take a trip back in time to learn why buildings were located near a water source and how pioneers obtained the water for their families.	3	C
Watering Hole	Do children in other countries have access to clean and safe drinking water? Complete an obstacle course to find out what children in developing countries have to do to collect clean and safe drinking water.	5	C
From Source to Tap	Learn about all the work it takes to collect, treat and move water so you have water when you turn on the tap.	4	C
From Tap to Source	When you flush the toilet or pour water down the sink, where does it go? Find out what it takes to move the water from your home to a wastewater treatment plant.	4	C
3Ps Pee, Poo, Paper	What can you flush down the toilet or pour down the sink? Learn about the 3Ps and what can happen to your pipes when the wrong stuff goes down	All grades	C
Turtle Hurdle	How well do you know turtles? Learn about local turtle species and the obstacles they must overcome to survive to adulthood and lay their eggs.	2, 4	C
Water in Our Food	How much water is in our food? Join the gameshow to learn about water facts for different foods.	All grades	C
We all Live Downstream	Do you know where it goes after you flush? Follow the journey poop takes from the toilet to a wastewater treatment plant.	4	C
Porosity and Permeability	How does groundwater move through the earth's surface materials? Pour water through tubes with different types of materials to find out.	3	C
Up on the Watershed	How do wetlands and dams affect how water flows in a watershed? Watch how the movement of water in a watershed can change using funnels and sponges.	3, 4	C
Water Cycles Expedition	An interactive "board game style" game that gives students a chance to travel along the rivers and tributaries of the Grand River Watershed and even explore underground by bike.	All grades	C
Water Ours to Protect	How easy is it to remove pollution from groundwater? This fun activity has you finding out.	All grades	C

Activity Centres Zone C

Activity	Description	Grades	Map location
Capture the Carbon	Participants will explore carbon emissions by seeing how easily we produce carbon each day. They will learn that simple daily actions can reduce emissions, and that it is much easier to prevent carbon emissions than to remove carbon from the atmosphere.	All grades	D
Garbage Juice	This activity station explores how landfills produce leachate (aka Garbage Juice) and how we responsibly deal with that pollutant and avoid it getting into the groundwater.	4	D
Infiltration Investigation	What are the effects on soil when compacted? Explore soil compaction by acting as a water molecule trying to move through the soil.	All grades	D
Septic Smart	Have you heard of a septic system? How do they work and how to safely use them?	4	D
Drops Decide	A "Family Feud" style groundwater game to help students understand how farm choices protect groundwater to support healthy crops, animals, and communities.	All grades	D
Chlorophyl	What is chlorophyl? What is the role of water with plant chlorophyl?	5	D
Great Lakes	Can you name the five Great Lakes? Learn about the Great Lakes watershed. Compare the size, volume and elevation of each lake with respect to the earth.	2, 3, 4	D
Wetlands	What is the purpose of a wetland? Learn why wetlands are important for managing water and keeping it clean.	All grades	D
Surface Water Treatment	Learn how natural water from rivers and lakes is transformed into safe drinking water, why each step is important, and how careful treatment protects public health	All grades	D
Homer Watson Inspire Landscape Drawing	Learn about local environmentalist and painter Homer Watson. Internationally recognized, Homer Watson's landscapes demonstrate a unique perspective on Canadian identity and deeply held love for nature. He often painted local scenery included our beautiful waterways and river system. Try creating a stunning landscape drawing in the style of Homer!	All grades	D