



Science. Education. Adventure

Family Newsletter

We've booked an adventure for you!

Our school is now booked into an amazing science adventure. Now in its 25th year, the one-of-a-kind RiverWatch Science Program transports students in large, inflatable rafts to investigate water quality along a section of the Bow River. The rafts serve as rubber busses and are equipped with portable science labs to sample water chemistry and collect aquatic insects. How cool is that?

Science Focus

The focus of the RiverWatch Science Program is to determine the environmental health of the Bow River by comparing conditions above and below the City of Calgary's Bonnybrook Wastewater Treatment Plant. Students paddle-power the rafts, and at two selected shore-line locations, the crew stops to collect enough science data to form their own conclusions. At RiverWatch, students don't just learn science, they actually do science!

A Special Opportunity

RiverWatch has received two national awards for this program — the Prime Minister's Award for Teaching Excellence and the NSERC Award for Science Promotion. Since RiverWatch programs were first offered in 1995, more than 137,000 students from across Alberta have been participants in real-world learning along their local river. Seating this year is limited to only 10,000 students — and you and our school are included!

A Must Have Experience

Parents often say they never did anything like this when they were students! RiverWatch bookings are in high demand across Alberta and all available dates quickly fill. RiverWatch is a must-have experience for junior and senior high science students studying topics that include freshwater ecology, environmental chemistry and climate impact.



www.riverwatch.ab.ca

Support for this Field Study

The RiverWatch Institute of Alberta is a registered Canadian charity operated as a service to teachers and students. RiverWatch provides all the river guides, support and equipment to make a worthwhile and memorable field study.

Support to help make our trip possible has been contributed by:



Lundberg Smith Family



Trip Overview

This full-day opportunity may require students to make alternate transportation and activity arrangements before or after school.

- Students leave from school by bus in the morning and meet their trained raft guides at the river.
- After receiving a safety briefing, students wear lifejackets and rubber boots to enter large inflated rafts for a river float tour.
- At two shoreline stops, students use science equipment to collect data for river chemistry and biology before and after their wastewater treatment plant.
- Students eat their bag lunch along the river.
- The trip finishes in the afternoon and students return back to school.

Wastewater tours are sometimes included in RiverWatch programs. This is a value-added option during RiverWatch offered within the constraints of time, availability and construction. If a wastewater tour is not available on any particular trip or day, the value of the science program is not impacted.

This program is important because it teaches kids like me to care for my city and the environment where I live.

Student

This trip is so valuable because all of us learned so many things. I learned that phosphorus that is in the water is from soaps and detergents. We learned how to test certain things in the water and the history of the river.

Student

As always, our RiverWatch experience was fantastic. You have guides who are knowledgeable and friendly and the whole experience was wonderful. On a scale of 1 – 5, definitely a 6!! Beyond fantastic! Thank you so much for allowing us to participate year after year — we love it! Let us know when we can book for next year.

Teacher



Safety is Top Priority

RiverWatch undertakes all reasonable steps to ensure that “RiverWatch Science Programs” are carried out in a safe manner and that there is not undue risk of injury or accident. RiverWatch warrants that staff are fully-trained, insured and that any equipment used is deemed to be safe.

Perfect Safety Record

RiverWatch is an urban activity with continuous adult supervision and a perfect safety record. Since starting in 1995, there has not been any safety incident involving emergency medical response. Both the participating school board and RiverWatch carry liability insurance.

Qualified Guides

Each raft group of students is under the leadership of a certified river guide who is trained to Transport Canada standards and very familiar with the section of river used each day. Guides are also certified as Standard First-Aiders and carry a cell phone, first-aid kit, rescue equipment and an emergency response plan. There is a guide in each raft and the school is asked to provide one additional adult per boat.

Member of the
Professional
River Outfitters
Association of
Alberta

Rafts and Rivers

RiverWatch rafts are commercial inflatable boats with a length of 20' and accommodate up to 17 participants. The sections of river and routes used for RiverWatch programs are rated Grade One, the easiest and safest possible. The rivers are generally free of obstacles or waves and the best passages are obvious. RiverWatch trips are modified or cancelled at river flow rates approaching 240 cubic meters per second on the Bow River as determined on the morning of the trip.

The Outdoor Classroom

RiverWatch guides are in-charge of safety management to ensure everyone's well-being. It is not necessary for students to know how to swim. Lifejackets must be worn in the rafts and along the shore. Water fighting, splashing with paddles, jumping into the river, jumping into other rafts or rock throwing is not permitted. Students wear safety glasses during chemical testing. Risks during a river study or raft float may include damage, loss, illness or serious injury related to terrain, weather, animals, plants, people, vehicles, equipment, litter, rivers and/or wastewater tours.

Data Collection

Students will become “scientists for a day” and use a variety of water quality testing kits that measure river health. The upstream test site provides baseline data (control) for analyzing the downstream impacts of treated wastewater or stormwater. A data sheet is sent back to school with the teacher for classroom follow-up and all science information is uploaded to www.riverwatch.ab.ca

- Temperature
- pH
- Phosphorus
- Insect populations
- Turbidity
- Dissolved oxygen
- Nitrogen

Things to Bring

- Lunches only, no backpacks — keep it light! Absolutely no heavy laptops, tablets, game technology, textbooks or school supplies, musical instruments or sports equipment.
- Litterless lunches in reusable containers are recommended as there are no garbage or compost containers along the river — we pack out what we pack in.
- Rubber boots are provided, so students must attend wearing socks.
- Full-length pants are the best legwear to avoid being cold or chaffed by rubber boots.
- There is a chance that students may get wet and no one should bring personal items such as electronics, cell phones or watches.
- Wool socks are so much better than cotton during cool days.
- Shorts and t-shirts are not suitable on cool days nor during the entire month of April or October.
- Toques can help keep students warm during cool days.

Weather Guidelines

Rest assured, student comfort and safety are always top priority but not every day is sunny and warm — that's the nature of field science! On cold days, students are kept as warm as possible by using physical activity, rain coats, life jackets and heated shelters for lunch. Trips may be modified or shortened in the event of light rain, some cold or some wind but usually not cancelled. Morning temperatures at 10 a.m. below 1 °C or below 7 °C on rainy days; or afternoon temperatures not reaching 5 °C; or heavy rain, significant snow or strong winds are all considerations that can modify, shorten or cancel a trip. Forecasts can change or be inaccurate, so as often as possible, it's best to make cancellation decisions right up until early morning of the trip day.

Student Behavior

The general tone of the day is casual and fun. However, there are many times when careful and undivided attention is required. Students should come prepared to help and learn. Students are expected to participate in paddling rafts, conducting science measurements and all related conversations. Students must be polite, helpful and refrain from swearing, smoking, wandering-off, throwing rocks, splashing, etc.

Calgary Route on the Bow River

Pearce Estates Park

1440 17a St SE

North at Blackfoot Trail and 17A St. S.E. traffic lights, travel halfway around the traffic circle to park access

Bonnybrook Wastewater Treatment Plant

4305 – 15 St. S.E.

Students stop here for lunch and if available, a mid-day walking tour.

Finish at Graves Boat Landing

Heritage Dr. & 15 St. S.E.

This parking lot is under the Glenmore Trail Bridge accessed via eastbound Heritage Drive.

In the event of an emergency, please contact our Business Manager at 780.919.7907



Learn More



The RiverWatch website www.riverwatch.ab.ca helps students prepare for the day and interpret the health of their river. Short video clips are available for viewing.

You can also visit us at <https://www.facebook.com/RiverWatchAlberta>

