

Liberté Égalité Fraternité



French Science Fair 2022 - Climatic awakening

EDITORIAL

A word from Michel Miraillet, French Ambassador to Canada

The Embassy of France is pleased to offer a new "Fête de la science" programme for a second Canadian edition. After two very constrained years of pandemic the greater flexibility of movement and gathering opens the possibility of in-person events.

The theme chosen this year, the "climate awakening", is important to France, a country that has shown leadership since the Paris Agreements in putting climate issues and the control of CO2 emissions on the global agenda. The time for observation is over and has now to give way to concrete actions. The international meetings in Egypt this November (COP27) and in Canada next month (COP15) should be an opportunity to converge on viable solutions.



"Science without conscience is nothing but ruin to the soul". Never has Rabelais's words about the alarm sounded by the scientific world and the IPCC (Intergovernmental Panel on Climate Change) resonated so strongly.

More than ever, the role of researchers is to raise awareness on climate issues. Not only do they sound the alarm, but their work also contributes to the elaboration of solutions that the world needs today. On climate issues, exact sciences necessarily interact with human and social sciences. How can we assess the impact of global warming on agricultural activity without evaluating the resilience of our agrarian structures? How can we model the evolution of our energy consumption without taking into account the capacity of our daily practices to evolve? It is through the popularization of science, to which the "Fête de la Science" contributes, that everyone will be able to assess the scope of the issues at stake and the effectiveness of the proposed solutions.

I would like to thank all of the Embassy's partners for their involvement in the creation of this year's programme. A special mention to Professor Christopher Burn, who kindly agreed to be our "Fête de la Science" Ambassador.

Long live science!

Christopher Burn

2022 Fête de la Science Ambassador in Canada

Permafrost is a defining feature of the Arctic and a key issue for the development of the Canadian North. Christopher Burn has dedicated his professional life to improving our understanding of permafrost through research conducted primarily in the western Canadian Arctic. In addition, Dr. Burn is instrumental in addressing and managing developmental, environmental and social issues through his engagement with communities and organizations and his advisory work on regulatory boards.



A professor at Carleton University in Ottawa, Dr. Burn has conducted a field research program in the Yukon and Western Arctic since 1982, which now takes him north of 60° for six weeks each summer and two weeks in winter. His research focuses on the effects of climate change on permafrost and soil stability in ice-rich terrain.

He received a senior doctorate (D.Sc.) from the University of Durham, UK, in January 2018. No other permafrost scientist currently holds such a mark of international recognition. He is president of the International Permafrost Association. In 2018, he was awarded the Canadian Polar Medal.

In 2017, Dr. Burn launched Canada's first Master of Arts in Northern Studies (MA, MSc) programs at Carleton University, after a long development process. These are one-year, intensive, course-based degrees that include experiential learning through work placements in the North.

Finally, it is important to recognize the substantial contributions that Dr. Burn has made to public decision-making in the Western Arctic through his involvement in the review of the Mackenzie Gas Project (2003-2010) and the Inuvik-Tuktoyaktuk Highway (2011-2013).

A word from Christopher Burn

It has been an honour to be invited by The Embassy of France to Canada to act as an Ambassador during the Fête de la science. Science helps us to understand the world and to create the agenda for our actions. It is particularly gratifying to see the reports from COP27 of President Macron working to assist developing nations to effect emissions reductions. The dialogue and statements at COP27 have highlighted the little time we have to uphold the agreements reached seven years ago at COP21 in Paris.

In the last two years, unwelcome and disruptive climate events have been reported, ranging from floods (Pakistan), forest fires (Australia), heat waves (Europe), and drought (United States), to coastal erosion (Alaska). In Canada our western mountains are losing their glacial cover, the great reservoir for western water; coastal cities such as Richmond, BC, are threatened by sea-level rise; the permafrost that holds much of the northern landscape together is thawing; and excessive summer heat is promoting wildfires.

In my own field, permafrost science, we have observed accelerating warming of the ground and increasing late-summer rainfall, so that many industrial waste dumps designed to use frozen ground as a container are close to failure and unexpected landslides block highways disrupting normal activities. What research has taught us over the last 30 years must now be implemented through innovative approaches to help us adapt and mitigate the crisis in our midst.

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PLANETARIUM SHOWS

Manitoba Museum

Magic Globe



Manitoba museum, 190 Rupert Ave, Winnipeg, MB R3B 0N2. 10/11 à 10h00am, 12/11 à 10:15am, 19/11 à 10:15am, 24/11 à 10:00am, 26/11 à 10:15am

Magic Globe follows the story of a little girl named Mia who accidentally discovers a mysterious piece of astronomical machinery. The show show covers topics like motions of the Sun and Earth, the reason for the seasons, animal and plant adaptation to seasonal changes, tropical vs. polar climates, and life cycles of plants and animals.

Only in French.

Atlas of a Changing Earth

Atlas of a Changing Earth explores how a revolution in one of the most basic of all human enterprises – the making of maps – is shedding new light on our planet's evolution in the wake of rising global temperatures.

Only in English.

Manitoba museum, 190 Rupert Ave, Winnipeg, MB R3B 0N2. 17/11 à 10:00am



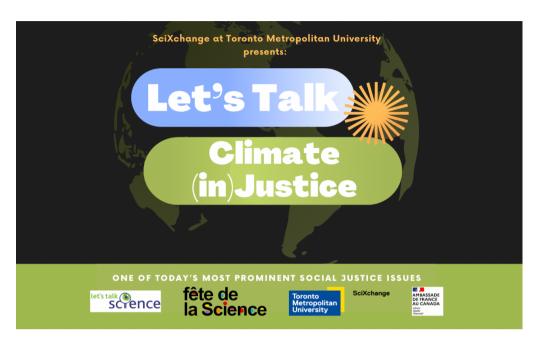
CONFERENCES

Let's Talk Climate (in)Justice

Open to public (from 14 y.o) In partnership with SciXchange.

This symposium will feature a series of speakers who will discuss the different components of human rights that are affected by climate change and the injustices associated with both impacts and solutions. The focus will be on climate change and its impacts on indigenous rights, water, food security, energy security and transportation. You will hear from experts on each of these topics, both from research perspective and from personal experience.

Only in English



26/11, from 1:00pm to 4:00pm (EST)s George Vari Engineering & Computing Center, 3rd floor. Toronto Metropolitan University - 245 Church Street Toronto ON M5B 1Z4.

From Lab to Real Life: Solutions to Better Sustainability

Open to public on waiting list only. To register: https://bit.ly/3WOpm5v Event hosted in partnership with Information and Communications Technology Council, the Government of Ontario, La French Tech Toronto and the France Canada Chamber of Commerce Ontario.



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This event will bring together key partners and stakeholders to discuss climate change through the lens of economics and innovation, presenting an excellent opportunity for the science and economic communities from France and Ontario to meet about one of the most important issues of our time. This event will be followed by a networking lunch.

25/11, 10:00pm-12:30pm. Ontario Investment and Trade Centre, 250 Yonge St, Toronto, ON M5B 2L7.

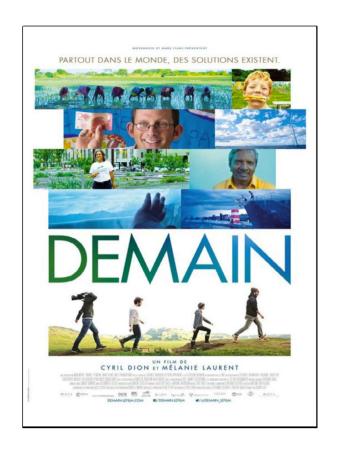
SCREENINGS

"Demain"

This documentary by Cyril Dion and Mélanie Laurent highlights numerous actions in different fields, such as education or agriculture, in response environmental challenges of the 21st century. The point of view adopted remains optimistic and invites us to think about citizen solutions.

(In French, subtitles in English)

Free screening in the following Alliances Françaises: Ottawa, 10/11 at 6:00pm - Toronto, 10/11 at 7:30pm -Halifax, 21/11 at 5:30pm - Manitoba (Winnipeg), 24/11 -Vancouver, 25/11 at 4:00pm - Victoria, 23/11 at 6:30pm



EXHIBITION

"Eelgrass, Prairies under the Sea"

The network of the Alliances Françaises of Canada, the Ecology Action Centre, the Embassy of France in Canada and Oceans North make you discover unsuspected marine treasures: the eelgrass, aquatic flowering plants that form large underwater meadows and are vital for marine ecosystems. Bilingual French/English

From the 10/11/22 to the 13/01/23. Alliance Française Manitoba, 934 Corydon Avenue, Winnipeg, MB





Ed Leith Cretaceous Menagerie | University of Manitoba, Wallace Building, 125 Dysart Road, Winnipeg www.afmanitoba.ca



















THE FÊTE DE LA SCIENCE IN THE AEFE SCHOOLS

This year, four schools of French schools abroad network -the Lycée Claudel in Ottawa, the Cousteau International School in Vancouver, the Lycée Français de Toronto and the Toronto French School (TFS)-are taking part in the Fête de la Science in Canada, offering their students educational activities to raise awareness about the challenges of climate change.

ClimaTicTac

An educational, cooperative and eco-responsible strategy game Lycée Claudel, École Internationale Cousteau, Lycée Français de Toronto



With ClimaTicTac, a collaborative strategy game, you will have to join forces to face the perils that threaten the planet. Designed by researchers and scientific mediators, and played by many high school students, college students and adults, this game aims to help people understand the challenges of climate change in a fun way. The objective is twofold: to limit the inexorable increase of CO2 in the atmosphere, and the loss of major cities in the world threatened by the accumulation of climatic hazards.

Sciences en bulles : réveil climatique !

A science popularization comic book created by young researchers Lycée Claudel, École Internationale Cousteau, Lycée Français de Toronto

Following the growing success of the first series, "Sciences en bulles" is back for a 4th edition! This year, 11 young researchers have been selected for their taste for sharing science. Their objective? To make their research work accessible to as many people as possible through an original and fun format: comics.

But creating popularized science comics is not easy. Thus, each doctoral student is accompanied by their academic advisor and two scientific mediators from the University of Grenoble Alpes and the University of Poitiers in order to design clear and entertaining content. An operation in partnership with the Ministry of Culture, France University and the Art+University+Culture network.



Mediation with Frédéric Bouchard, professor at the University of Sherbrooke

Lycée Claudel

Trained as a geologist with a specialization in northern terrestrial and aquatic environments, Frédéric Bouchard has a keen interest in popularizing and communicating science to the general public. His research aims to study the impacts of permafrost degradation in response to climate change.

He will be present at the Lycée Claudel on November, 14. Fisrt, he will held a conference for Première students, to present his research work and to show the interdisciplinary dimension (social, economic, legal, etc.) of the impact of permafrost thawing.



Frédéric Bouchard will also work with 3ème students who, after studying the comic strip "Ça dégèle!" of which he is the author, will be asked to imagine and design a plastic production in the form of a technical object aimed at monitoring the permafrost. This will be the basis for the mediation led by Frédéric Bouchard to present his research work and the job of a researcher to the students.

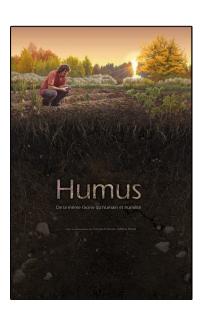
Finally, the classes of CM2 and the team of 6ème of the webradio will have the opportunity to conduct an interview with Mr. Bouchard.

Film series on climate

Lycée Français de Toronto







The films "Animal", "Humus" and "Bigger than us", on the theme of global warming, will be viewed by students at the Lycée Français de Toronto during their special Fête de la Science week, November 21-27.

Visit to the Royal Ontario Museum

Lycée Français de Toronto

Students from the Lycée Français de Toronto will have the opportunity to attend a guided tour of the Royal Ontario Museum (ROM) in Toronto (October 22 and 24).

The tour will focus on the links that can be made between climate change and the ROM building as well as the various exhibits in the museum.

On Saturday, October 26, a guided tour will be reserved for parents and staff of the school.



Exhibition of scientific popularization panels

Lycée Français de Toronto, Toronto French School (TFS)



15 panels from the comic book "Réveil climatique" will be on display at the Lycée Français de Toronto from November 21 to 27 and at the Toronto French School (TFS) from November 14 to 22.

Educational Escape Games

Lycée Français de Toronto



""You have been hired to stop a very dangerous group: the Obscurants. These individuals are manipulators who regularly spread false scientific information. Their next move will take place tonight and will cause worldwide panic... Will you be able to stop them in time?"

Through 3 escape games, students will be invited to develop their critical thinking skills and discover the scientific method.