



# Canadians' Perspectives on Climate Change & Education: 2022 Executive Summary



Learning for a  
Sustainable Future

# LSF

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# Climate Change and Education Context

Climate change is one of the most complex and wide-reaching challenges facing humankind today. According to a 2022 report published by the Intergovernmental Panel on Climate Change (IPCC), the planet has already passed a number of crucial tipping points, and some effects of climate change are already irreversible. Canada has seen a significant increase in climate-related disasters over the past decade and urgent action is necessary using the best data available to ensure that Canadians will successfully adapt and prosper.

## Climate Change Education and Policy

The important contribution of the education sector in responding to climate change is recognized globally. According to UNESCO, 95 percent of the 194 reporting countries have included climate change education as part of their national action plans on climate change. However, this pledge has not yet resulted in subsequent curriculum change, as almost half of the curriculum frameworks from 100 countries contain no climate change content, and furthermore, implementation is not consistent. Across Canada, only 6 of 13 provinces and territories have included climate and sustainability in their curricular documents or education policy. In addition, provincial curriculum seldom emphasizes climate change's current and projected impact, mitigation and adaptation strategies, and the scientific consensus on climate science.

## Impacts on Youth and the Significance of Youth Action

It is essential to provide youth with accurate scientific knowledge and strategies to address climate change to promote a sustainable mindset and build a climate-resilient socioeconomic system. Integrating climate education across subjects and tying together inequality, citizenship, Indigenous stewardship and discussions of systematic change will foster an informed citizenry and empower students to use their voices and advocate for change in their communities. Engaging youth in environmental issues within their communities is but one starting point to further encourage them to undertake collective action through policy, activism, and network building. Yet youth cannot tackle the climate crisis on their own – they require the commitment of previous generations to right cumulative wrongs and change the course of the future. Formal and informal education of all Canadians is key to achieving success in the fight against climate change.

# Survey Background

As the effects of climate change become increasingly more severe, the sense of urgency to act to mitigate and adapt to climate change is also mounting. Moving Canada toward resiliency and adaptability for climate impacts today and in the future will require support, education, and action at all levels of Canadian society.

The report *Canadians' Perspectives on Climate Change & Education: 2022* provides results from a national climate change education survey undertaken by Learning for a Sustainable Future (LSF) and Leger Research Intelligence Group. This executive summary provides the highlights from the full national report. The survey gathered data from across Canada on different groups' knowledge of climate change and its risks, and their views on the role of schools in climate change education. The summary of findings presented here, nationally and from provincial/regional jurisdictions, helps to gain an understanding of trends over time and current perspectives of educators, students, parents and the general public in 2022. With this knowledge, recommendations based on evidence can be made to fill in gaps, promote strengths, and address misperceptions in order to implement the most effective strategies to support all Canadians in their efforts to combat climate change.

# Survey Highlights

The majority of Canadians (73%) feel that **we are experiencing a climate emergency**

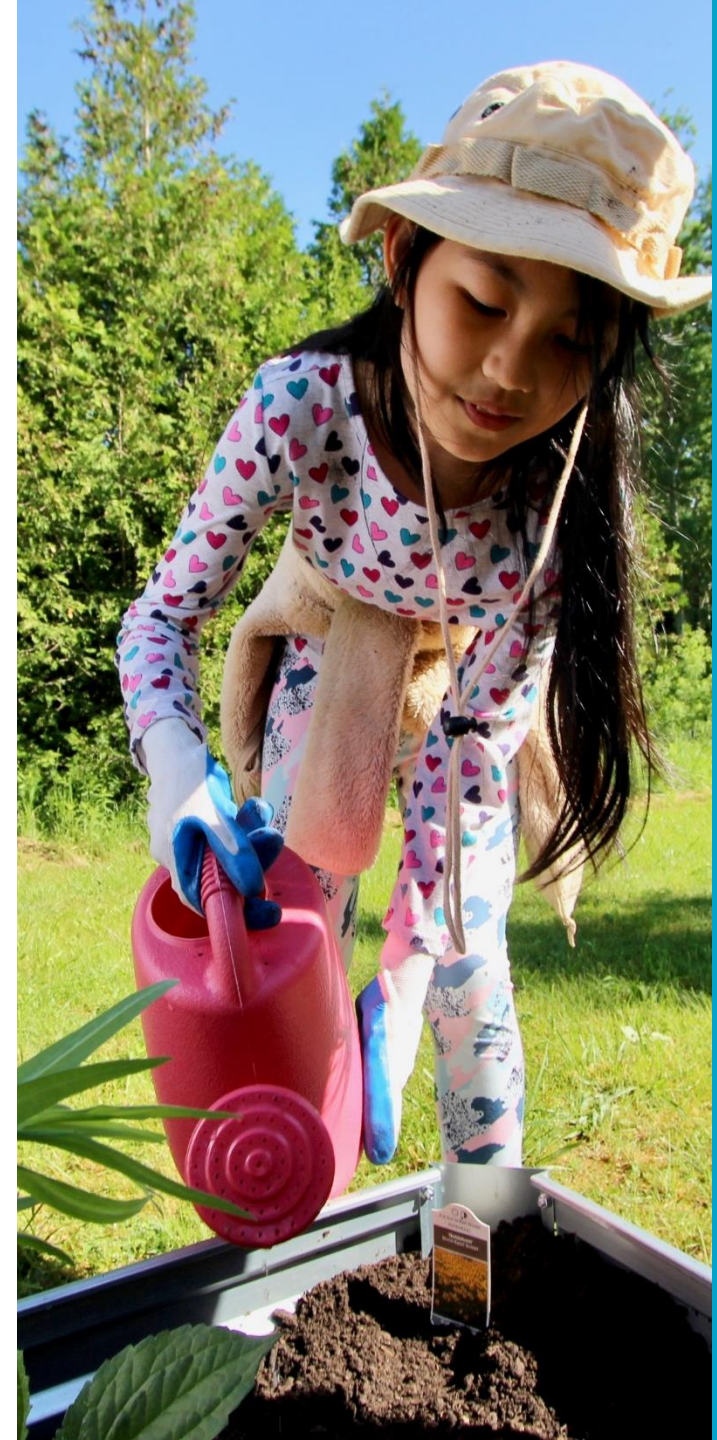
While almost three quarters (72%) of **Canadians agree that humans are responsible** for climate change, just over half (55%) understand that greenhouse gas emissions are the primary cause of climate change

**Very few Canadians (17%) think the government is doing a good job** in their actions to address climate change.

Half of all Canadians (50%) believe **climate change is causing mental health issues** or making them worse

While more educators are teaching climate change content than in 2019, there is wide agreement (64%) that **the education system should be doing “a lot more”** to educate young people about climate change

Only 34% of educators feel that they **have sufficient knowledge and skills needed to teach climate change**, and therefore require more training, resources and support for climate change learning





# Methodology

The purpose of the survey was to assess Canadians' knowledge, understanding and perceptions of climate change and its risks, and to explore views on climate change education in Canada

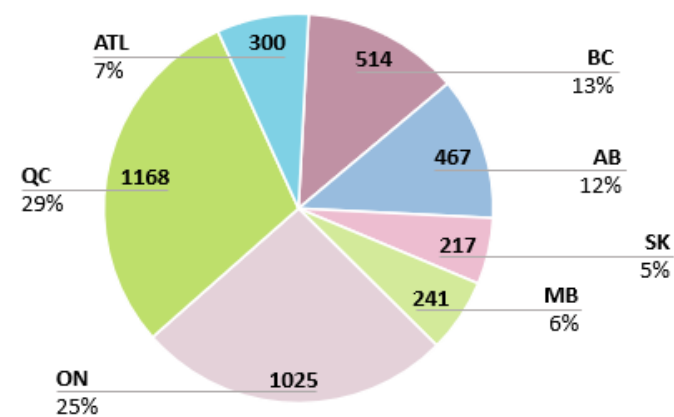
This survey is a follow-up to a climate change education survey that was undertaken in 2019 by Dr. Ellen Field at Lakehead University, Learning for a Sustainable Future and Leger, with funding from the Social Sciences and Humanities Research Council of Canada. The survey was updated by LSF and included questions from the original survey for comparison purposes, in addition to including new questions to gather information about some of the salient issues related to climate change, including the mental health impacts of climate change, the inclusion of Indigenous knowledge, the impacts of COVID-19, and the importance of youth engagement.

The survey was distributed for LSF by Leger in English and French from November 9, 2021 to March 6, 2022, and 4,035 respondents from across Canada completed the survey. The National Report and this Executive Summary were based on this Leger panel data, which showed a significant increase in sample size compared to the 2019 survey, with better representation from all regions across Canada. In addition, 2,461 responses were also collected through an open survey link hosted on LSF's website to ensure sufficient numbers to allow more fulsome reporting in a few of the individual regional reports.

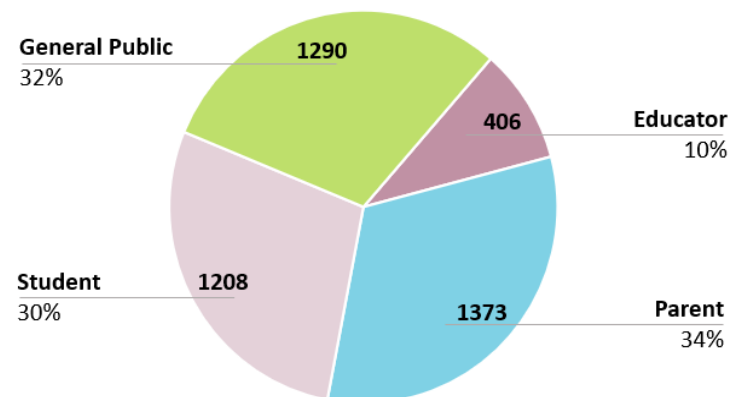
Data analysis provided findings by geographic region as well as by the four respondent groups: educators, parents, students, and the general public. Data was weighted to ensure that results were representative of the Canadian public. (Note: Demographic data is presented in its unweighted form for clarity.) See the Methodology Section of the full national report for full details.

## Demographics

Respondents by Province/Region



Respondents by participant group



### Population Segmentation

- **Educators:** public and private school teachers in formal K-12/cégep education systems, educational assistants, department heads, curriculum leads and curriculum consultants in school boards, vice-principals, principals, and district leaders/school administrators
- **Students:** current students from grades 7 to 12/cégep in the formal education system
- **Parents:** parents of students in K-12/cégep education system
- **General public** – includes participants who do not identify as educators, students, or parents.



# Key Findings

## Perspectives of Canadians

### Canadians are concerned about climate change and are certain that it is happening

Most (81%) Canadians are certain that climate change is happening, and 73% of Canadians feel that we are experiencing a climate emergency. 74% are concerned about the impacts.

### Canadians understand the human impact on climate change

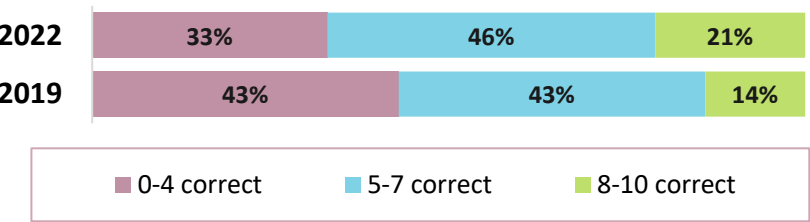
Most (72%) Canadians think human beings are responsible for climate change, and even more (82%) believe that people have failed to care for the planet.

## Knowledge Understanding and Information

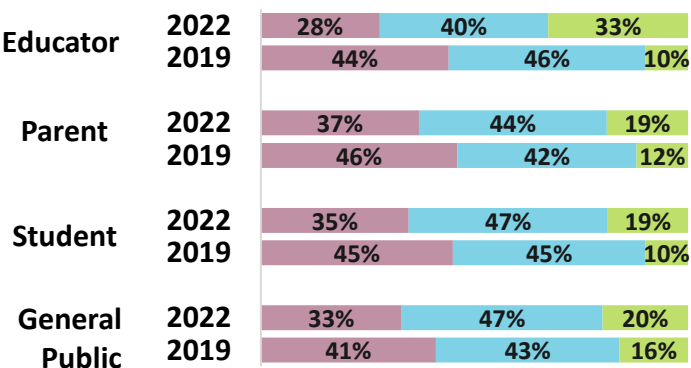
### Canadians are more knowledgeable about climate change

More Canadians passed the ten-question knowledge and understanding quiz (67% in 2022 vs 57% in 2019). All participant groups (educators, parents, students and the general public) answered more questions correctly. Just over half of respondents answered correctly that carbon dioxide and other greenhouse gases are the primary cause of climate change (55% in 2022 vs 49% in 2019).

Total Correct Knowledge Quiz Answers, 2019 vs 2022



Total Correct Answers – Respondent Group



## Knowledge Understanding and Information

### Canadians seek a greater understanding of climate change

The majority of Canadians still feel they need more information (80% in 2022 vs 86% in 2019). Students continue to be the group wanting information the most (85% in 2022 and 88% in 2019).

Most Canadians (68%), especially educators (74%), trust information provided by scientists and academics the most. Canadians get climate change information predominantly from television news, except for students who prefer social media.

Sources of Information	Students	Adults (Educators, Parents and the General Public)
Television news programs	31%	51%
Newspaper and/or online news websites	33%	51%
NET Social Media (Youtube, Facebook, Instagram, TikTok, and Twitter)	51%	35%

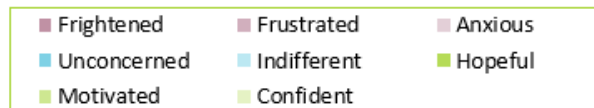
## Impacts and Action

### Canadians acknowledge the impacts of climate change are already happening

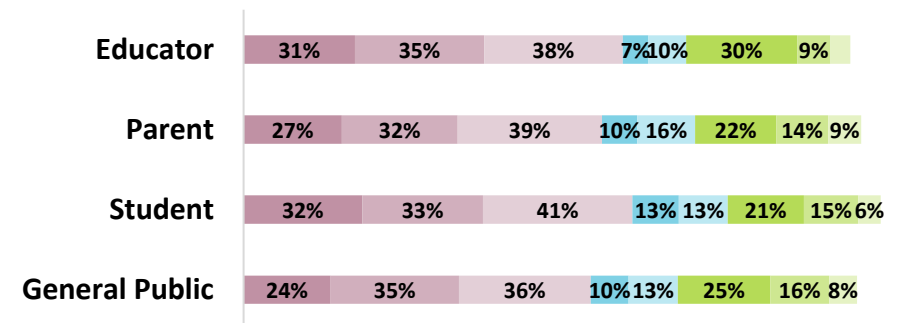
In 2022, even more Canadians believe that Canada, as an arctic nation, is particularly affected by climate change (74% in 2022 vs 51% in 2019). Canadians believe that climate change is already causing and making glacier and sea ice melt (85%) and making extreme weather (80%) and extreme temperature (77%) events worse (80%). Almost half of Canadians (45%) acknowledge that climate change is more significantly impacting Indigenous and marginalized communities.

### Climate change is impacting mental health and well-being

Half of all Canadians (50%) believe climate change is already causing mental health issues or making them worse. Almost one-quarter of educators, parents, and students indicate that their worries about climate change are affecting their daily life. Students are more likely than any other respondent group to report feeling anxious (41%) and frightened (32%).



### Feelings on Climate Change – Respondent Group



## Impacts and Action

### Canadians are taking action to reduce climate change

69% of Canadians reported taking actions to reduce their personal contribution to greenhouse gas emissions. 72% of Canadians would be willing to change “some” or “a lot” in their life (at school, work or home) to help reduce the effects of climate change. Educators were significantly more willing to change (83%).

### What actions are Canadians taking?



76%

Maintained proper recycling measures



57%

Reduced Food Waste



52%

Bought locally



44%

Indicated driving less by walking or biking more



41%

Talked with someone about climate change



25%

Voted for a party or politician due to their position on climate change

### Canadians overwhelmingly believe government is not doing enough

78% of Canadians indicated that, while personal actions are important, systemic change is needed to address climate change.

Only 17% agree that the government is doing a good job in their actions to address climate change. Only 28% think technology will solve climate change alone.

***“I feel governments need to commit to making the hard decisions. To end the use of fossil fuels and to fund alternative energy rather than oil and gas. Governments need to act instead of talk.” -survey respondent***





## How has the Pandemic changed our views?

### Influence of COVID-19 on perspectives on climate change

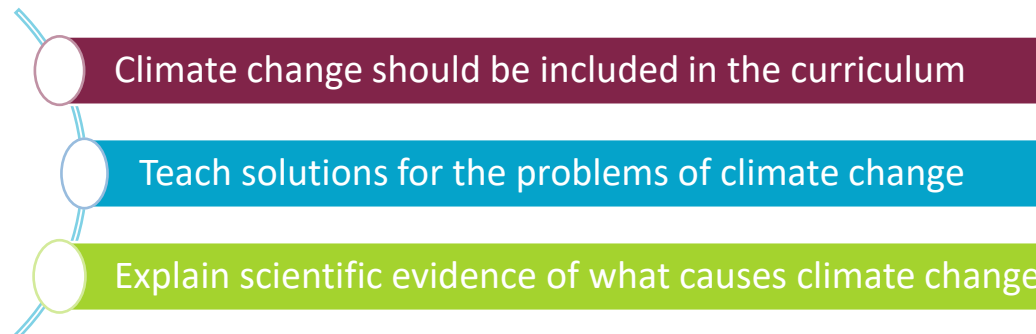
The pandemic has caused a shift in thinking for many Canadians on global issues. 68% agreed that they recognize the importance of science to provide society with essential facts & evidence-based knowledge, and 74% realized that no matter where we are in the world, we are all interconnected. Because of the pandemic, 60% felt more concerned about climate change, having seen the denial expressed by many when faced with an acute global threat.

## Role of Education – from the viewpoint of all Canadians

### Canadians agree that more should be done regarding climate change education

Canadians increasingly think schools need to give climate change education a high priority (67% in 2022 vs 59% in 2019). The largest increase was among parents (64% in 2022 vs 53% in 2019 ) and students (66% in 2022 vs 57% in 2019). 64% of Canadians think the education system should be doing “a lot more” to educate young people about climate change.

**When asked:** *“How do you think education systems should further contribute to climate change education”* the top three suggestions were:



### Climate change education should be the role of all teachers

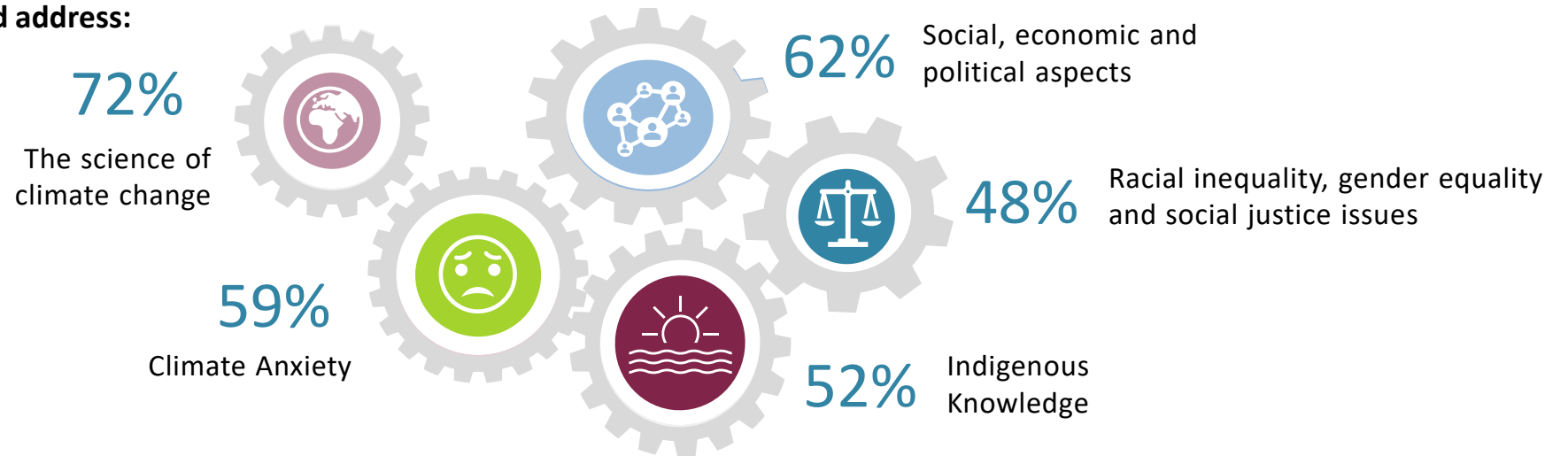
Many Canadians (61%) felt climate change education should be the role of all teachers and believe it should be taught in all K-12 grades (67%). Most felt it should be taught early, as only very few Canadians (15%) felt that climate change was too complex to be taught in the younger grades.

## Role of Education – from the viewpoint of all Canadians

When teaching climate education in schools most Canadians agree that climate change education should:



Canadians feel that climate change education should address:



However, in the classroom, only 23% of educators address ethics and social justice within climate change impacts, and only 16% include Indigenous knowledge about climate change. Only 18% teach students strategies to cope with emotions that arise when learning about climate change.



## Regional Differences

**Similar to 2019, Alberta (and, to a lesser extent, Saskatchewan) frequently diverges from the rest of Canada**

In general, levels of certainty that climate change is happening, overall knowledge of climate change, concern about impacts, acknowledgment of risks, and support for a greater focus on climate change education are lowest in Alberta. For example, 30% of Alberta educators encourage students to take action on climate change compared to 55% of their counterparts in BC. However, a positive trend is also emerging, as both Alberta and Saskatchewan had the most significant improvement (2022 vs 2019) in their climate change knowledge scores, as well as in their increased agreement that climate change education should be a high priority for schooling.



*For additional regional information, please see the individual provincial reports.*

## Role of Education – from the viewpoint of educators

Only one-third (34%) of educators feel that they have the knowledge and skills needed to teach climate change. And while they would like to include climate change education in their classroom, a growing majority agree that they need professional development to learn about how to effectively teach this complex topic (64% in 2022 vs 50% in 2019).

**Educators are looking for support including:**

**56%**

**Climate change  
resources**

**49%**

**Updated curriculum  
documents that  
contain climate  
change topics**

**37%**

**Appropriate  
instructional strategies  
including: **How to  
extend classroom  
learning outdoors****

**36%**

**A school wide  
culture that  
promotes climate  
change education**

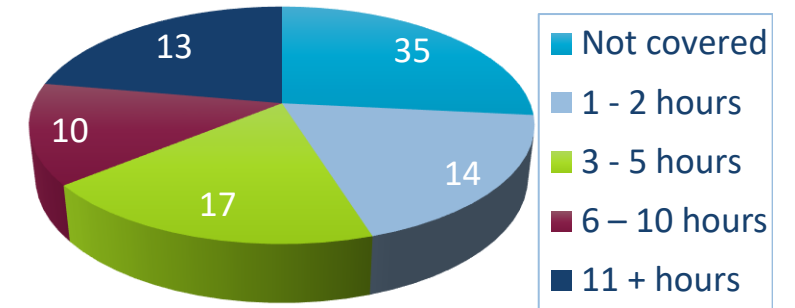
## Role of Education – from the viewpoint of Educators

### Limited class time spent on climate change content

Despite global advocacy for incorporating environmental education in all grades and subjects, 35% of educators do not cover climate change topics in any subject that they teach. While this is a significant improvement from 2019 (when 57% admitted to not covering climate change) the actual number of hours dedicated to climate change topics remains low. Only 13 % taught 11 or more hours of climate change content within the school year or term, and 31% spent less than 5 hours.

Despite consensus that climate change education should be the role of all teachers, of the educators who do integrate climate change content, most address the content in science class (34%) or social studies (20%). Half of the educators agree that a lack of time within the curriculum is a barrier when attempting to include climate change education within the classroom.

Hours in a School Year or Term Spent Covering Climate Change



### Educators encourage students to take action

Most Canadians (75%) agree that climate change education should aim to change the way people behave. Student empowerment is a result of students feeling they have a vital part to play in the mitigation of the effects of climate change. 51% of educators encourage students to take action as part of their learning.

Educators most frequently engage students in the following types of action:



65%

To make lifestyle or consumer choices



64%

To educate and inform others



43%

To undertake eco-projects

# Climate change perceptions by gender

Knowledge and Understanding	Men	Women
Personally, how well-informed do you feel you are about climate change?	68%	43%
Pass rate on climate survey knowledge quiz (5 or more correct answers)	69%	65%

Perceptions of Climate Change	Men	Women
I am certain that climate change is happening	78%	87%
Human beings are responsible for climate change	69%	74%
Climate change poses risks to Canadians	73%	80%

Perceptions of Education	Men	Women
The education system should be doing a lot more to educate young people	58%	70%
Schools should focus on Indigenous traditional knowledge related to climate change	46%	56%
I need more resources (lesson plans, videos, books) to teach climate change	48%	61%
I feel confident in teaching sensitive or controversial issues involved in climate change	62%	46%
I encourage students to take action as part of their learning	45%	50%



## Canadians are inspired by youth

69% of Canadians think the work and voices of young people can inspire important climate action. Perhaps not surprisingly, educators (76%) feel the most strongly about the inspiration provided by youth.

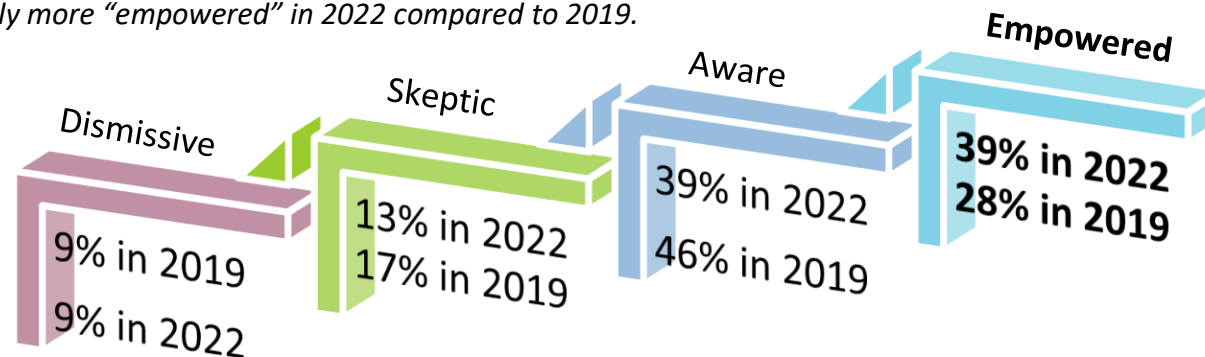
*“Youths can influence adults and governments, but the weight of the change needed should not be on the shoulders of the youth/next generation. We do not have time for that, and it is too much to ask them to bear the brunt of that. The adults alive right now today must do everything in their individual power and spheres of influence to bring about the changes necessary.” (survey respondent)*

*“Educators need to focus on HOPE. We need to foster feelings of hope in our youth in order to empower future climate activists.” (survey respondent)*

### Students showed growth in the Ladder of Engagement

The ladder of engagement is a conceptual way to categorize individuals based on their responses and is comprised of four audiences: dismissive, skeptics, aware, and empowered. In three of the four participant groups (educators, parents and general public), there was little change since 2019. This made the change seen in the student results much more significant. The percentage of students feeling “empowered” in 2019 was 28%; this number rose to 39% in 2022, meaning more students felt that human-caused climate change is happening, AND that there are things we can do to change it.

*Students are significantly more “empowered” in 2022 compared to 2019.*



# Recommendations

The analysis of the survey data revealed a series of opportunities to strengthen climate change education in Canada, both in formal and informal education settings. Overall, Canadians wish to be better informed about climate change. In addition, educators call for enhanced professional learning and resources. The following recommendations provide a roadmap for governments, policymakers, universities, school boards, teachers' unions, community organizations, corporations, educators, and youth to address the importance of climate change education and recognize the urgency of acting now.

## Formal Education

- Ministries of Education should revise curricula to incorporate climate change expectations across all subjects and in all grades, from kindergarten to grade 12/CÉGEP
- Curriculum expectations should address the following:
  - climate science and the scientific consensus that climate change is human caused
  - critical media literacy on climate change so students can make the distinction between fact and opinion
  - the social, economic, and political aspects of climate change
  - connections between climate change and racial inequity, gender equality, and social justice issues
  - Indigenous climate change knowledge
  - solutions to mitigating and adapting to the effects of climate change, consequences of actions, and the need for behaviour change
  - individual/personal and collective climate action in order to foster feelings of hope and empowerment (e.g. lifestyle/consumer action, educating and informing others, eco-projects)
  - how to address anxiety and other emotions brought about by climate change
  - career opportunities related to climate change mitigation or adaptation
  - Introductory climate change topics for younger grades (K-3) such as green energy, extreme weather, biodiversity, overconsumption, carbon footprint of food and agriculture, and threats to physical health



## Recommendations - Formal Education continued

- In addition to customary education stakeholders, Ministries of Education should also consult with and seek input on curriculum content from:
  - Youth
  - Indigenous educators
  - Marginalized communities
- Ministries of Education, school boards, and teachers' unions should provide professional development and resources to enhance teacher knowledge, skills, and confidence in teaching climate change and should include:
  - climate science, causes of climate change, climate change impacts, climate change mitigation, and adaptation strategies
  - transformative pedagogies such as effective instructional strategies for teaching climate change, including inquiry, active learning, systems, and future thinking, alternative perspectives, experiential learning, acting on learning, engaging local partners, and media literacy
  - strategies to help students cope with emotions that arise when learning about climate change
  - equity, diversity, and inclusion strategies to address the links between climate change and racial inequity, gender equality, and social justice issues
  - strategies to embed Indigenous climate change knowledge
  - access to current national/provincial climate data and locally relevant climate change classroom resources including lesson plans, videos, books, and games
  - information on green jobs and career pathways (especially important for not only teachers but also guidance counselors)
- Faculties of Education, in implementing the *Accord on Education for a Sustainable Future* adopted by the Association of Canadian Deans of Education in 2022 should:
  - highlight the importance and urgency of climate change education
  - ensure that climate change education (including the curriculum expectation recommendations listed previously) is a central and required component of course offerings in pre-service, in-service, and graduate-level teacher education curricula
  - support faculty and students in implementing transformative pedagogies that facilitate teaching, learning, and acting on climate change



## Recommendations - Informal and Non-formal Education

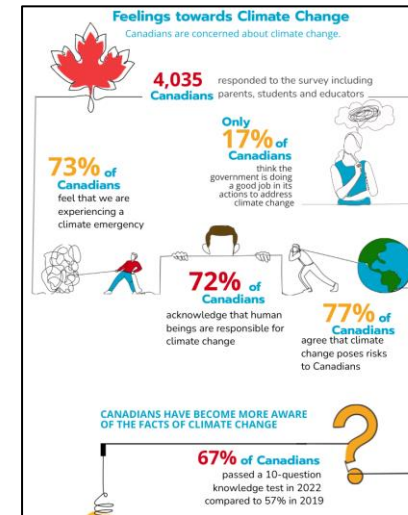
- Canadians should be provided with information from trusted sources, including scientists and academics, about the process and causes of climate change, climate change impacts, opportunities for mitigation and adaptation, and personal, higher-impact actions they can implement to reduce their greenhouse gas emissions
- Sources of information about climate change need to target different population groups more purposefully and effectively. Television and radio news programming, online news, documentaries, and movies should be used as informal communication vehicles for Canadian adults, and properly monitored social media sites (YouTube, Facebook, Instagram, TikTok, and Twitter ) for K-12/CÉGEP students
- Informal education sources should provide resources and strategies to help parents, grandparents, children, and youth cope with emotions that arise when learning about climate change, with a focus on solutions, actions, and hope
- Canadians should hear positive stories of climate action and learn about collaborative approaches that create systemic change
- Informal education sources should provide resources for teachers including current national/provincial climate data, information on green jobs, and locally relevant climate change classroom resources
- Informal education sources should provide professional learning opportunities for teachers to share their expertise on climate change knowledge and opportunities for action

**In summary, the results of the climate change survey emphasized the need for enhanced climate change education, both in the formal school setting, as well as through informal education channels. Using this two-pronged, targeted approach will help to reduce climate change knowledge gaps and work towards the positive outcome of active citizenship for all Canadians.**



To access the full *Canadians' Perspectives on Climate Change & Education: 2022 Report* and Infographic please visit:

[LSF-LST.ca/research-policy/survey/](https://LSF-LST.ca/research-policy/survey/)



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Learning for a Sustainable Future (LSF) is a Canadian charity, founded in 1991, whose mission is to promote, through education, the knowledge, skills, values, perspectives, and practices essential to a sustainable future.



### Contact information

Pamela Schwartzberg  
President and CEO Learning for a Sustainable Future  
[cc-survey@LSF-LST.ca](mailto:cc-survey@LSF-LST.ca)  
1 877 250 8202  
[WWW.LSF-LST.ca](http://WWW.LSF-LST.ca)



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