



# Canadians' Perspectives on Climate Change & Education

## Ontario Knowledge Mobilization Session Post-Session Report

Supported by:



# Welcome to our Knowledge Mobilization Session!

*“Mobilizing research into action is important, complex, and there is a major need for more effective knowledge mobilization within and beyond education.”*

*Quote and information below from:  
The Sustainability and Education Policy Network (SEPN)  
<https://sepn.ca/knowledge-mobilization/>*

- Knowledge mobilization (KM) - research into action - is important, complex, and there is a major need for more effective KM within and beyond education.
- KM is more about engagement and learning, than dissemination and transfer
- KM reflects the concerns, interests, and needs of all audiences

*We are happy that you could join us!*

# Purpose of the Survey

*“Education is a critical agent in  
addressing the issue of climate change.”*

*United Nations*

The purpose of LSF’s survey *Canadians’ Perspectives on Climate Change & Education: 2022* was to assess Canadians’ knowledge, understanding and perceptions of climate change and its risks, and to explore views on climate change education, in order to provide recommendations to move Canada toward resiliency and adaptability for climate impacts today and in the future.

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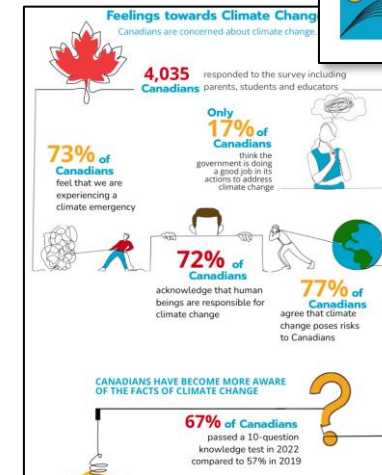
- Current Reality of Climate Change Education
- Sector Action Planning
- Action Pledges

# Survey Results: Reports and Infographics

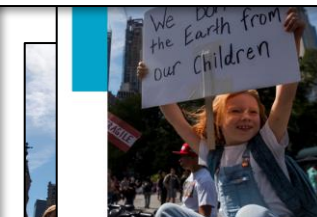
[www.LSF-LST.ca/research-policy/survey/](http://www.LSF-LST.ca/research-policy/survey/)

The highlights of the results for this presentation on *Canadians' Perspectives on Climate Change & Education: 2022* were obtained from the following sources:

1. Ontario Provincial Report
2. Executive Summary
3. Infographics
4. Full National Report



**Canadians' Perspectives on Climate Change & Education: 2022  
Ontario Provincial Report**



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



**Canadians' Perspectives on Climate Change & Education: 2022**



# Survey Background

## Why Conduct this Survey?

- There are a number of surveys on Canadian perspectives on climate change but few on Canadian perspectives on climate change education

## Survey Participant Groups

- The survey aimed to understand the views from across all regions of Canada from four groups:
  - general public
  - parents
  - students (7-12/cégep)
  - educators (K-12/cégep teachers, P/VPs, curriculum leads, etc.)

## Survey Composition

- Contained questions from the original 2019 survey (conducted by LSF, Leger & Lakehead University) for comparison purposes
- Added new questions on current, salient issues related to climate change:
  - mental health
  - Indigenous knowledge
  - impacts of COVID-19
  - youth engagement

## Survey Methods

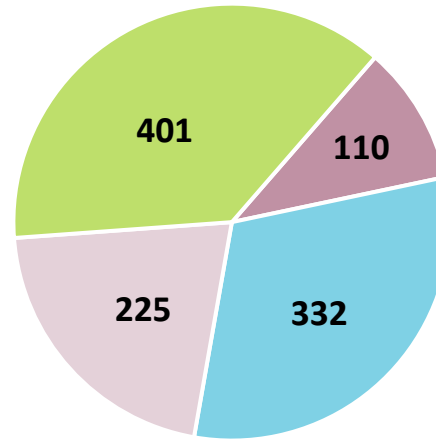
# Data Collection and Analysis

- Leger provided data collection using their online survey panel.
  - A total of 4,035 Canadians responded, which provided a robust sample size on which to base the national reporting.
  - This was a significant increase from 2019 (2,191 respondents), with better representation from all regions across Canada.
- In addition, 2,461 open-link responses were collected by LSF with support from numerous partners.
  - The data from the open-link 'educator' respondent groups in MB, SK and ATL was utilized in the provincial reports, due to insufficient sample sizes from Leger-panel educator data.

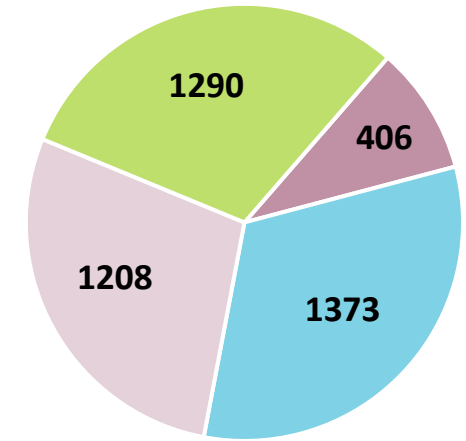
## Survey Methods

# Demographics

## Ontario Respondent Groups

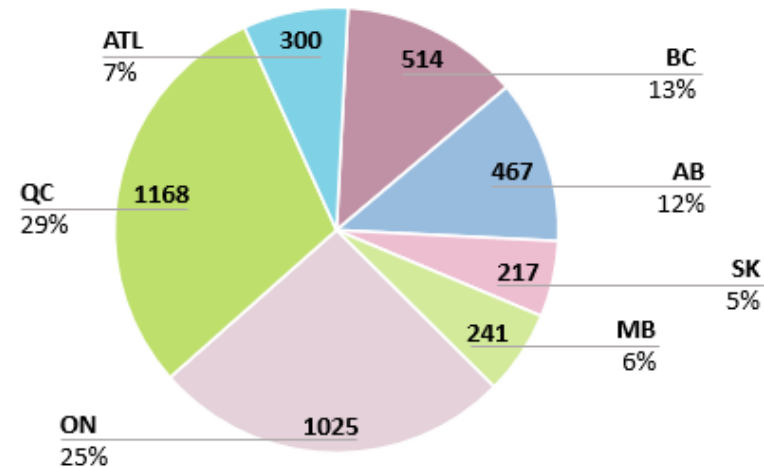


## National Respondent Groups



- Educator
- Parent
- Student
- General Public

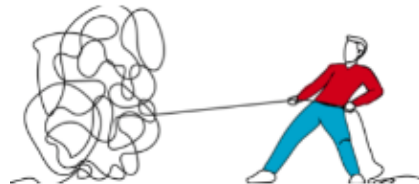
## National Respondents by Province/Region





Overall, the great majority (81%) of Canadians (80% in ON) are certain that climate change is happening, and they are concerned:

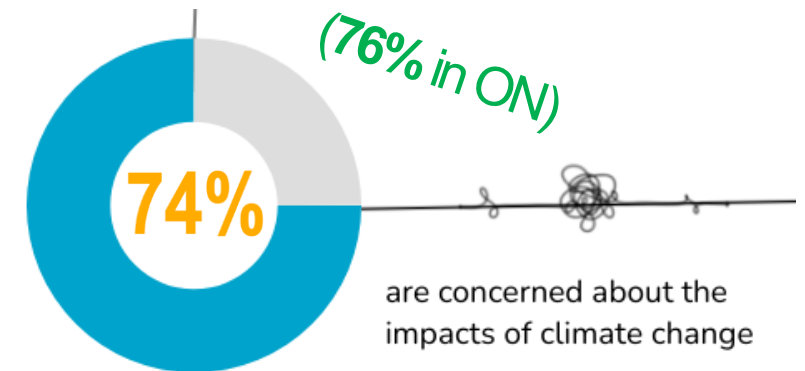
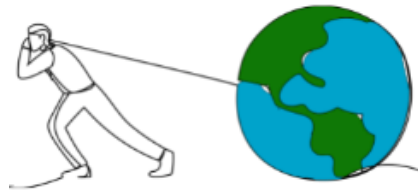
**73%** (74% in ON) of Canadians feel that we are experiencing a climate emergency



**82%** (83% in ON) of Canadians feel that people have failed to care for the planet



(79% in ON) **77%** of Canadians agree that climate change poses risks to Canadians



# Key Survey Findings

- ▷ Knowledge
- ▷ Impacts
- ▷ Actions

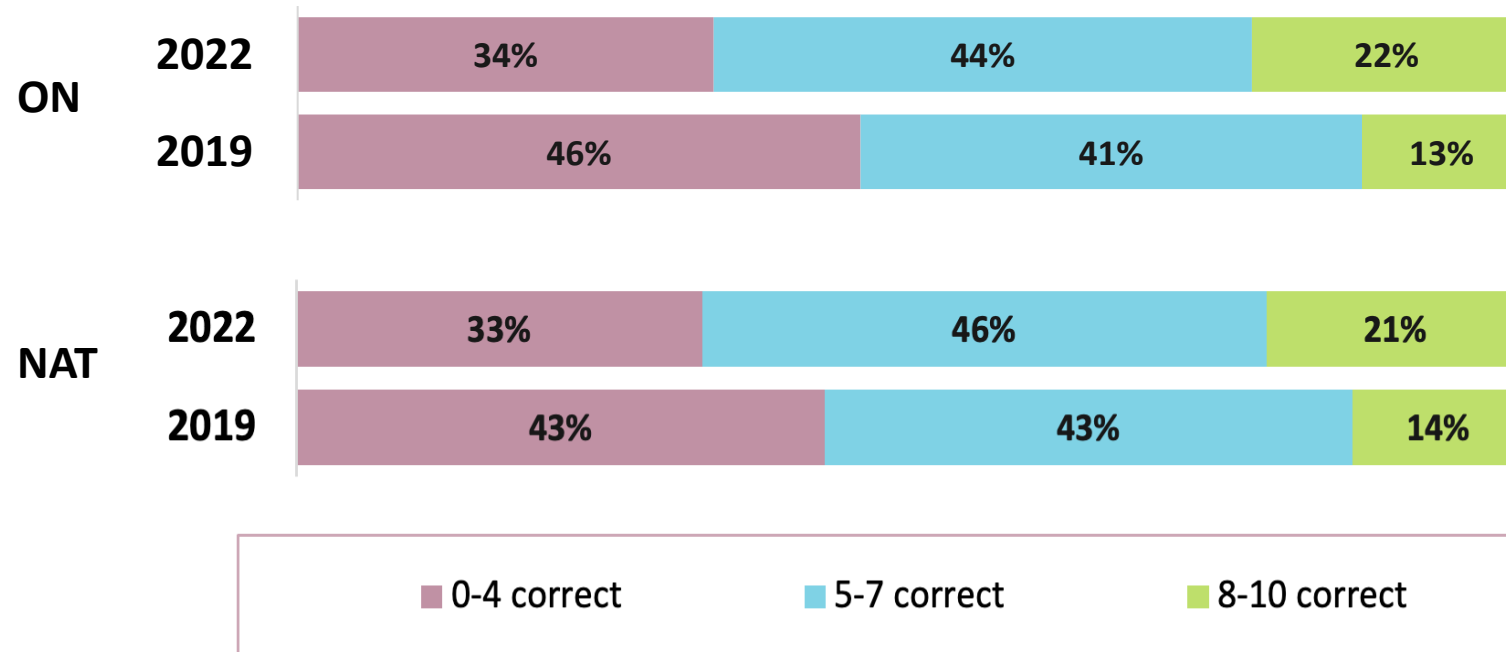


# Canadians are becoming more knowledgeable about climate change

*Based on the ten-question knowledge quiz in the survey:*

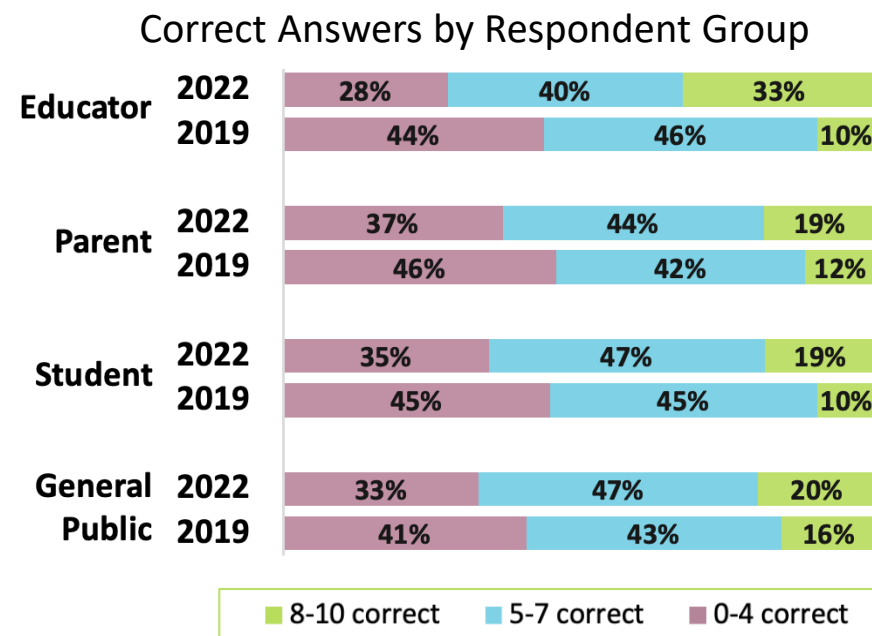
**66%** in ON passed in 2022 vs **54%** in 2019

## Total Correct Knowledge Questions 2022 vs 2019



# Respondents' knowledge about climate change

In 2022, significantly more **educators** nationally answered 8-10 knowledge questions correctly than in 2019 and had the highest pass rate (73%). **Parents** had the lowest pass rate (63%).



## Regionally:

- **QC** maintained the highest pass rate (74%)
- While **AB** and **SK** greatly improved since 2019 (+20 % and +24% respectively) their scores remain lower than the rest of Canada (60% each).

## Canadians still need to further improve their knowledge about climate change

Just over half (55%) of Canadians in 2022 answered correctly, that carbon dioxide and other greenhouse gases are the primary cause of climate change, vs 49% in 2019.

Province	Carbon Dioxide and other greenhouse gases ( <i>correct</i> )		
	2019	2022	(+/-)
BC	52%	58%	+6
AB	44%	48%	+4
SK	34%	52%	+18
MB	49%	60%	+11
ON	48%	52%	+4
QC	55%	64%	+9
Atl.	49%	46%	-3

While ON and all other regions (except for ATL) showed gains in their understanding of the cause of climate change, there is room for further improvement.



## There remains a gap in Canadians' perceptions of their knowledge about climate change

55%

Over half of Canadians feel well-informed about climate change.

21%

But less than one quarter correctly answered 8-10 quiz questions.

## The good news is that 80% of Canadians want more information

Students are the group wanting information the most (85%).

- Regionally, QC (85%) and SK (84%) want the most information
- ON is similar to the national average at 79%
- BC (77%) and AB (76%) residents want the least.

## Trusted Sources

Most Canadians (68%) (71% in ON), trust information given by scientists and academics, compared to government sources (23%) (21% in ON).

## Age is a big factor in determining where Canadians get their climate change information

Sources of Information	Educators	Parents	Students	General Public
Television news programs	56%	44%	31%	54%
Newspaper and/or online news websites	56%	50%	33%	48%
Documentaries or movies	44%	44%	34%	42%
NET Social Media (Youtube, Facebook, Instagram, TikTok, and Twitter)	35%	36%	51%	33%
Conversations with friends and family	33%	34%	43%	34%
Radio news programs	32%	23%	13%	22%

## Canadians' firm understanding that humans are responsible for climate change remains the same as in 2019

Canadians' views that **humans are causing climate change** has remained virtually unchanged.

70% in 2019

72% in 2022

Many Canadians also continue to be concerned that “humans could reduce climate change, but **it’s unclear whether we will do what’s needed**”.

45% in 2019

44% in 2022

Advances in technology since 2019 have not changed Canadians perspectives as few agree that “new technologies can solve climate change **without** individuals having to make big changes in their lives”.

28% in 2019

28% in 2022

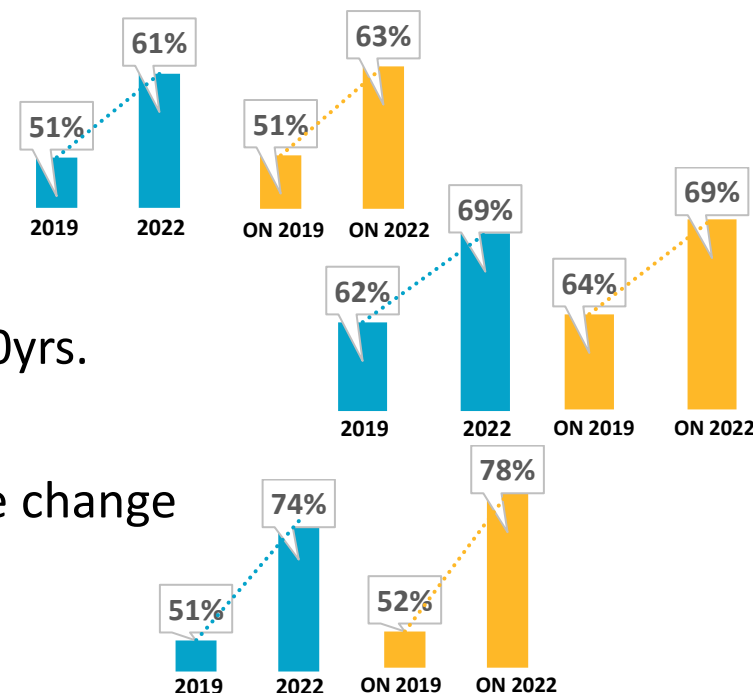
*Note: While students remained the most optimistic about new technologies (32%), the percentage had decreased since 2019 (38%).*



# Canadians' awareness of the significant impacts of climate change on Canada is growing

More Canadians believe :

- Climate change will harm coastal communities a great deal.
- Climate change is already harming, or will cause harm in 5-10yrs.
- Canada, as an arctic nation, is particularly affected by climate change

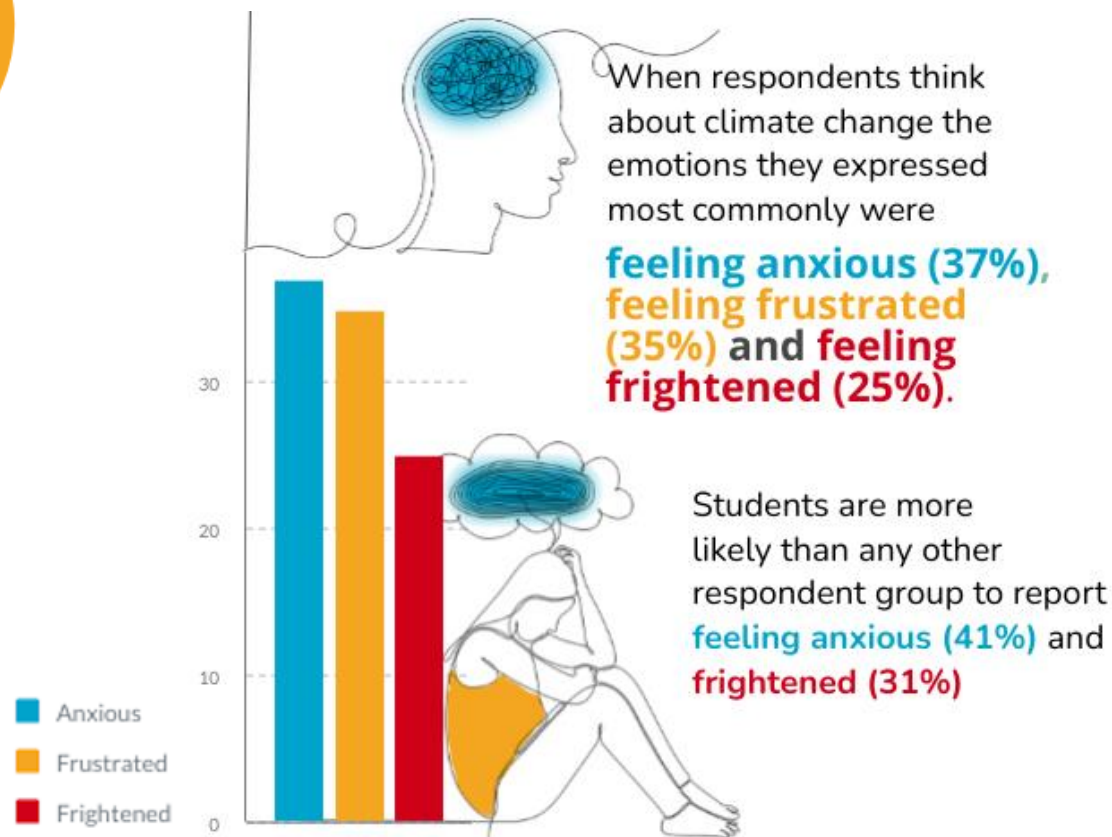
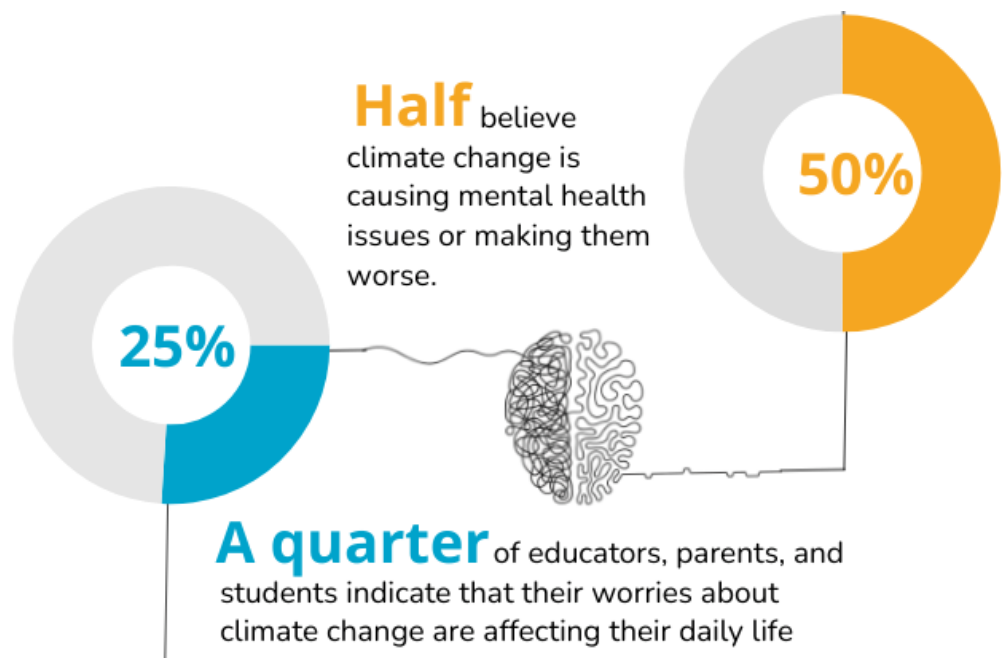


**Regionally**, there are differences in perceptions on how climate change is already causing and making glacier and sea ice melt, and making extreme weather or temperature events worse in Canada.

Percent Agree by Province/Region in 2022

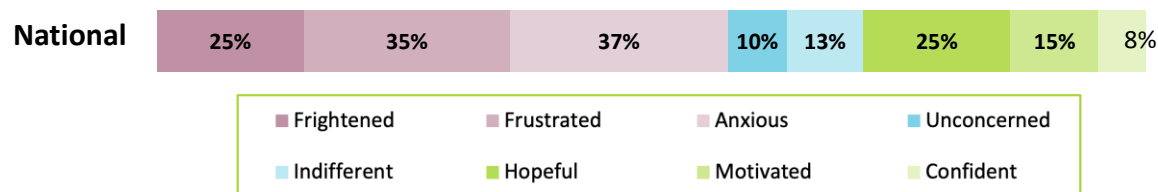
	BC	AB	SK	MB	ON	QC	ATL
Glacier and sea ice melt	86%	78%	83%	86%	85%	88%	83%
Extreme weather events	80%	69%	69%	79%	82%	83%	83%
Extreme temperatures	82%	69%	74%	77%	77%	79%	74%

# Canadians feel that climate change is impacting mental health and well-being

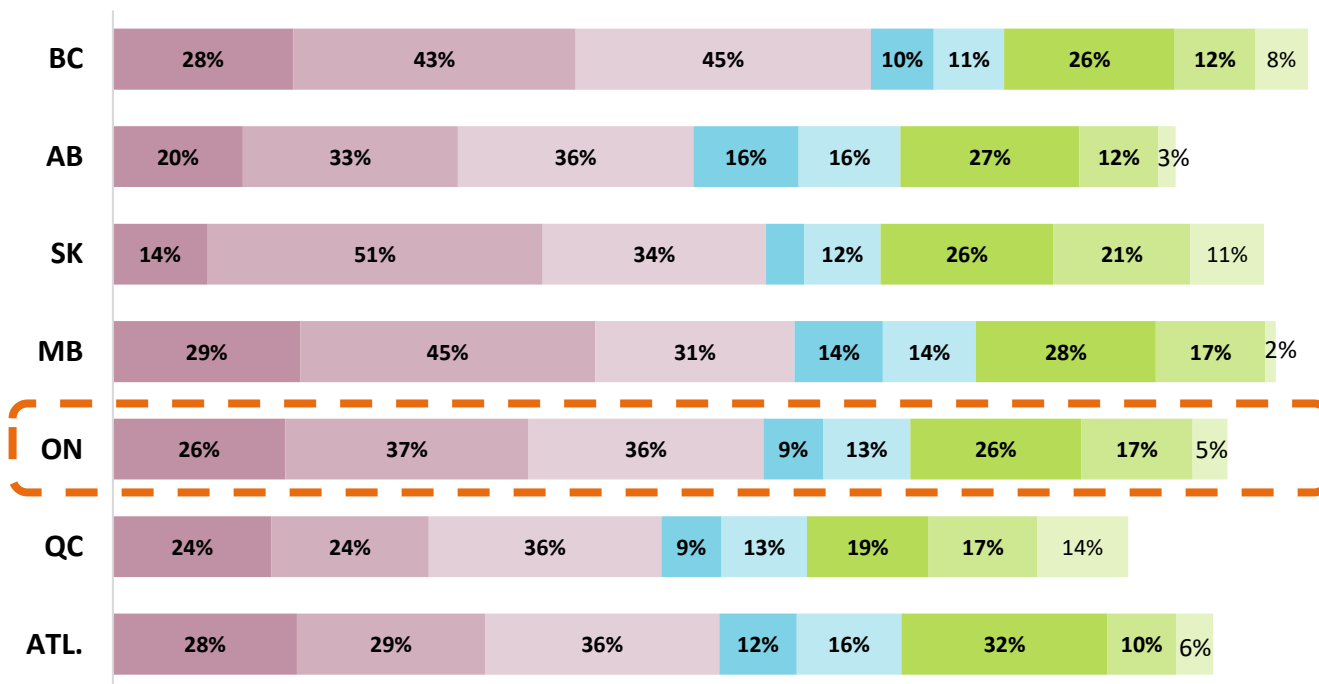


# Ontarians feel that climate change is impacting mental health and well-being

## Feelings on Climate Change - Nationally



## Feelings on Climate Change – Province/Region



- ON vs nationally were slightly more likely to indicate feeling frustrated (37% vs. 35% nationally).
- ON participants mirrored the national results in not feeling very confident (5% and 8% nationally).
- Regionally, ON were similarly frightened about climate change (26%) vs nationally (25%).
- ON had similar levels of anxiety (36%) as the national total (37%).

## Canadians are taking action to reduce climate change

69% of Canadians take action to reduce their personal greenhouse gas emissions.



76%  
Maintained proper  
recycling measures



57%  
Reduced Food  
Waste



52%  
Bought locally



44%  
Indicate driving less by  
walking or biking more



25%  
Voted for a party or  
politician due to their  
position on climate change

72% of Canadians would 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%), as were residents of QC (79%). ON (71%) showed similar willingness.

## Canadians overwhelmingly believe government is not doing enough

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

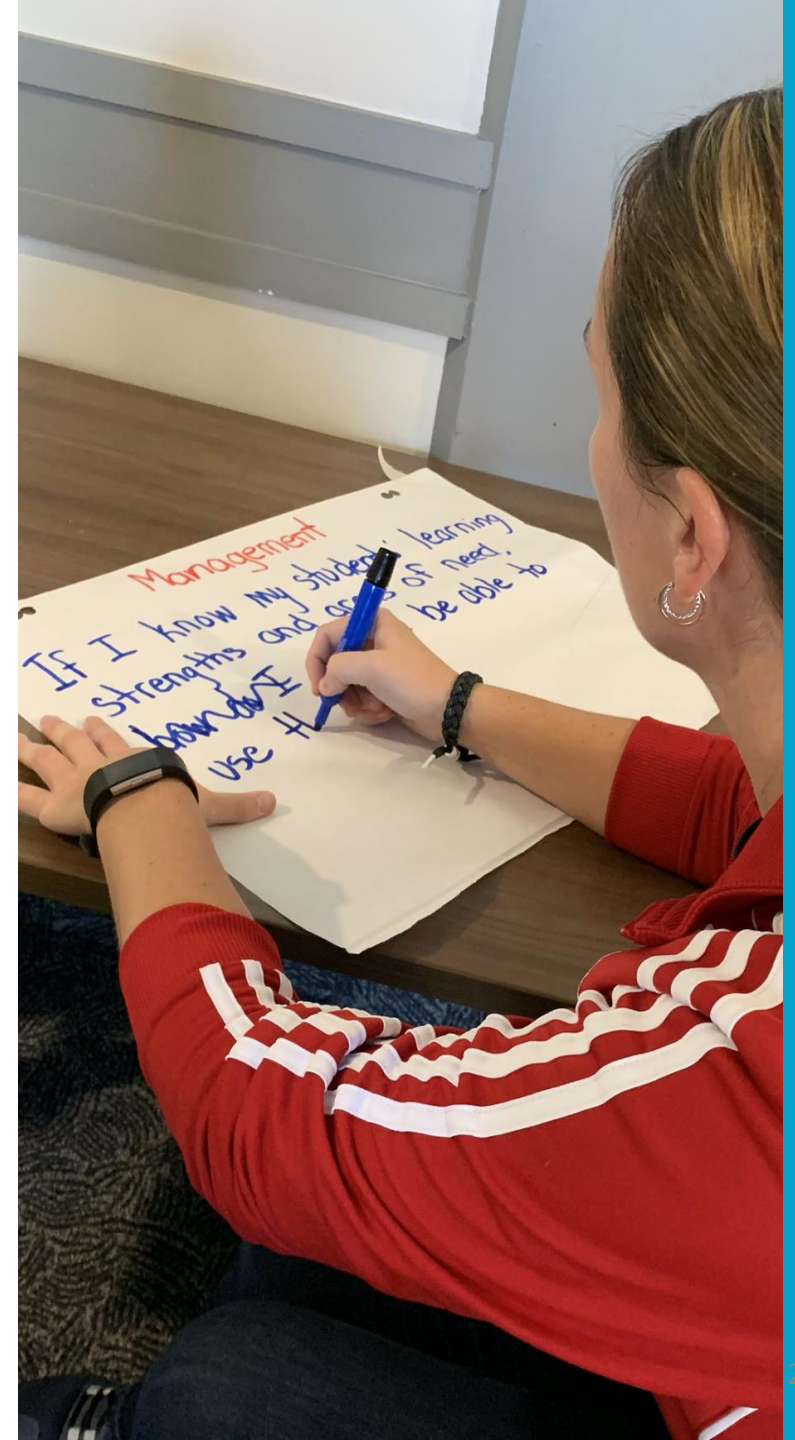
Only 17% agree nationally, and similarly in ON (18%), that the government is doing a good job in their actions to address climate change.



## Key Survey Findings *continued*

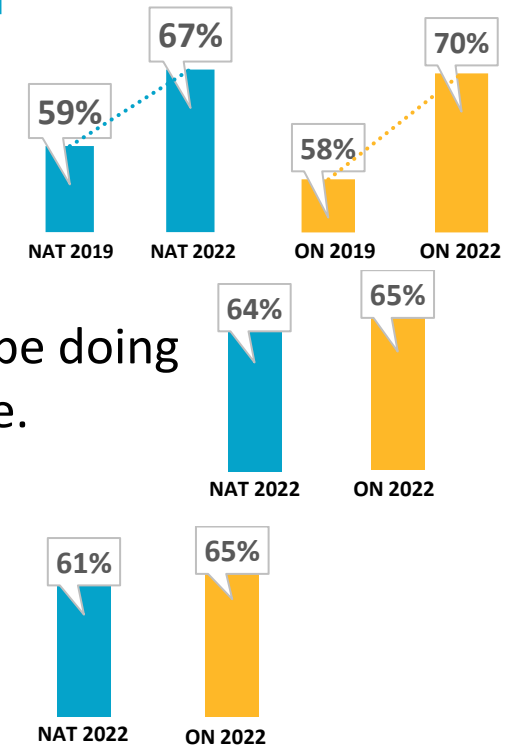
### ▶ **Perspectives on Climate Change Education**

- From the viewpoint of Canadians
- From the viewpoint of educators



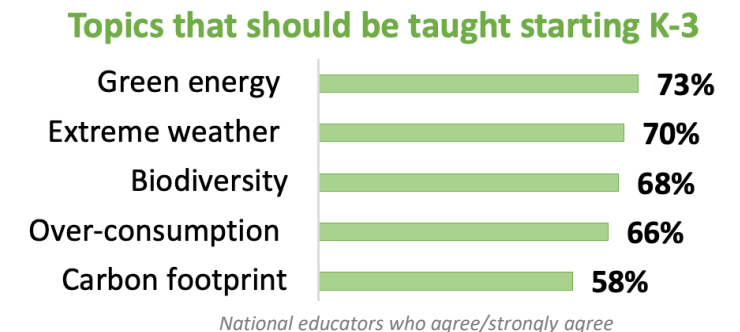
## Climate change education must be prioritized

- Canadians increasingly think climate change education should be a high priority
- Many Canadians believe that the education system should be doing “a lot more” to educate young people about climate change.
- Many Canadians feel climate change education should be the role of all teachers.



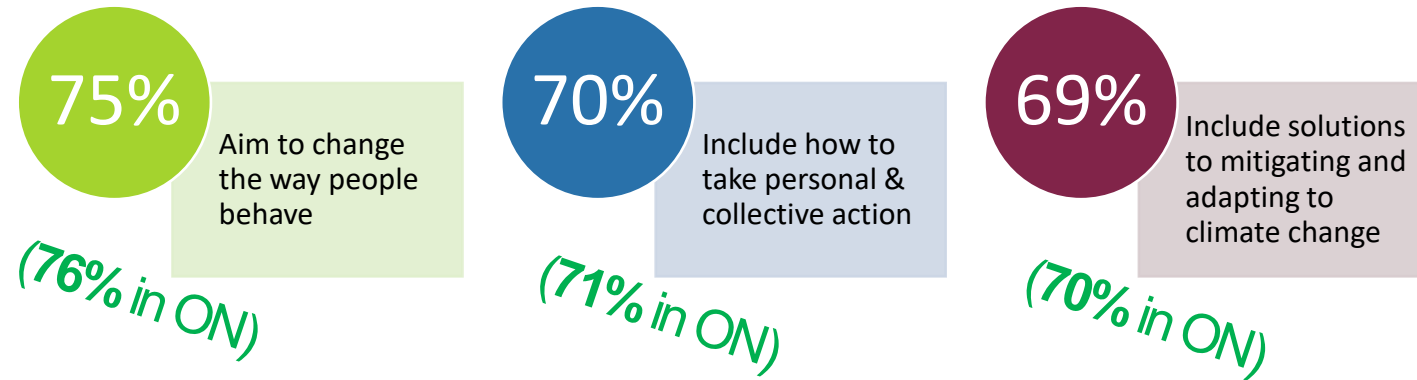
## Teaching climate change in the early grades

Most felt climate change topics should be taught early, as only very few (nationally 15%; **ON 15%**) felt that climate change was too complex to be taught in the younger grades.

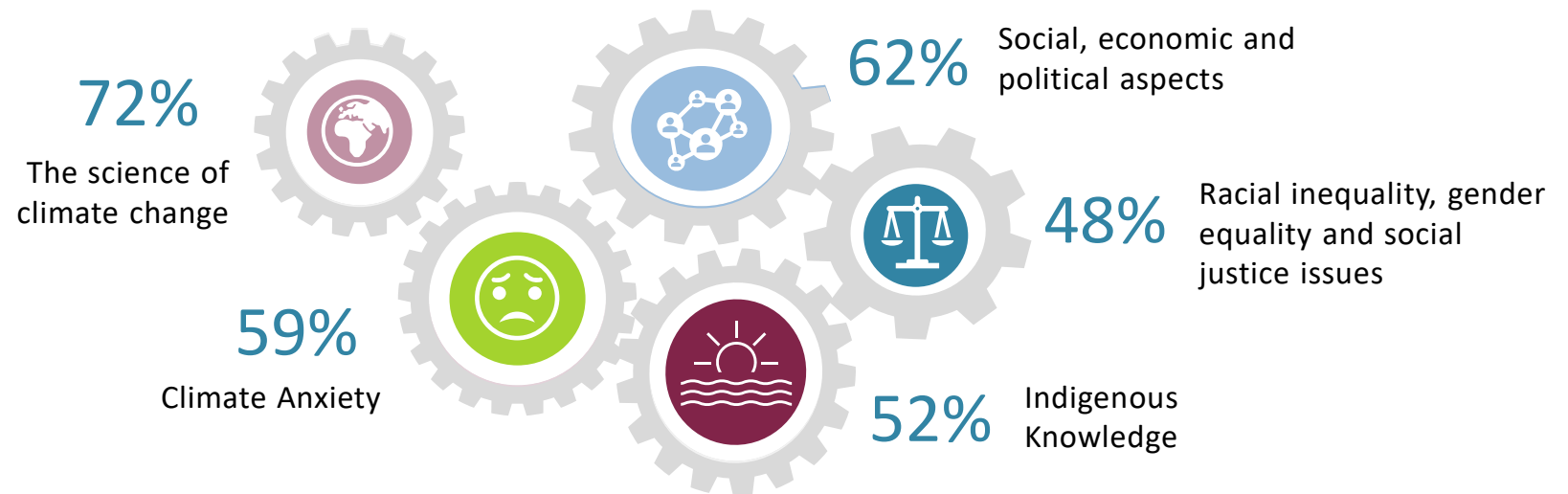


## Climate change education must address numerous, diverse topics

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



Canadians feel that climate change education should address:



(Results for the above were similar in ON)

## From the viewpoint of students

Students across Canada were asked the open-response question: “If you could decide what you would learn in school about climate change, what would you tell your teacher?”

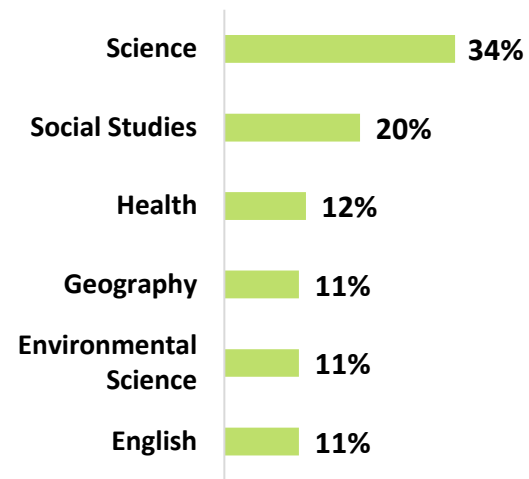
Top 5 answers:

- 1 Offer solutions to the problem
- 2 Explain scientific evidence
- 3 Empower individuals so they can make a difference
- 4 Highlight consequences of actions
- 5 More education in order to increase awareness

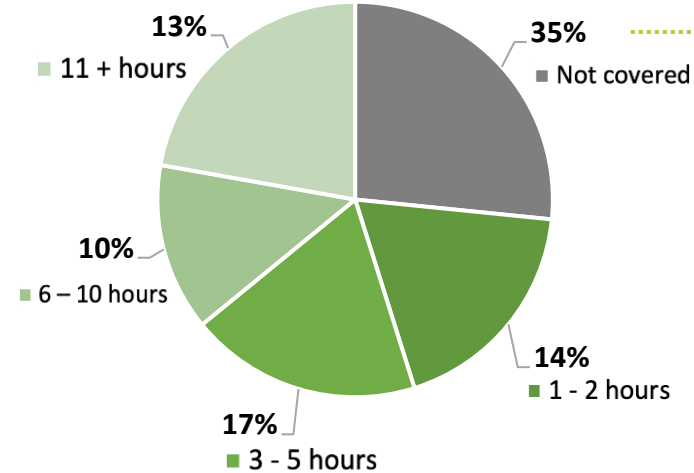


# Teachers and climate change education: Nationally, where taught, how much time spent, and what topics?

Courses Taught that Address Climate Change



Hours in a Year/Semester Spent Covering Climate Change



35% of educators in 2022 did not cover climate change compared to 57% in 2019. However, the actual number of hours dedicated to climate change topics remains low.

When I teach about climate change...	BC	AB	ON	QC	ATL*	SK*	MB*
I encourage students to take action as part of their learning	45%	30%	60%	50%	66%	66%	66%
I include solutions to climate change	40%	26%	42%	41%	56%	59%	58%
I primarily focus on teaching climate change science	25%	27%	38%	32%	42%	59%	36%
I include the social, economic & political elements of climate change	31%	28%	30%	29%	35%	38%	35%
I emphasize aspects of ethics and social justice within climate change	25%	16%	27%	22%	32%	34%	39%
I teach students strategies to cope with emotions that arise	12%	18%	24%	15%	19%	28%	23%
I include Indigenous traditional knowledge about climate change	13%	26%	20%	11%	19%	48%	29%

\* MB, SK and ATL educator data are from open-link survey due to insufficient Leger panel numbers. Provincial data has been grouped according to the method of sampling in the tables in this section for comparison purposes.

## Supports that teachers need to address climate change

Only one-third of educators feel that they have the **knowledge and skills** needed to teach climate change.

32% in 2019

34% in 2022

A growing majority need **professional development** to learn about how to effectively teach this complex topic.

50% in 2019

64% in 2022

More teachers feel they don't have sufficient **time within the course /grade** to teach climate change.

39% in 2019

50% in 2022

### Educators are looking for additional supports 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

## More Educators need to encourage students to take action

Despite the importance of active, experiential learning in sustainability education to mitigate anxiety and empower students, only 51% of Canadian educators (but 60% of ON 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

### Regionally, there are differences in taking action in schools

	BC	AB	ON	QC		ATL*	SK*	MB*
Making Lifestyle/Consumer Choices	71%	39%	70%	65%		76%	76%	82%
Educating & Informing	65%	48%	65%	65%		74%	86%	77%
Eco-Projects	37%	34%	46%	45%		56%	69%	62%
Engaging in Political/Legislative Action	24%	16%	24%	18%		24%	31%	34%
Peaceful Dissent	13%	11%	26%	14%		24%	31%	30%
Raising Funds	25%	13%	25%	10%		15%	10%	29%

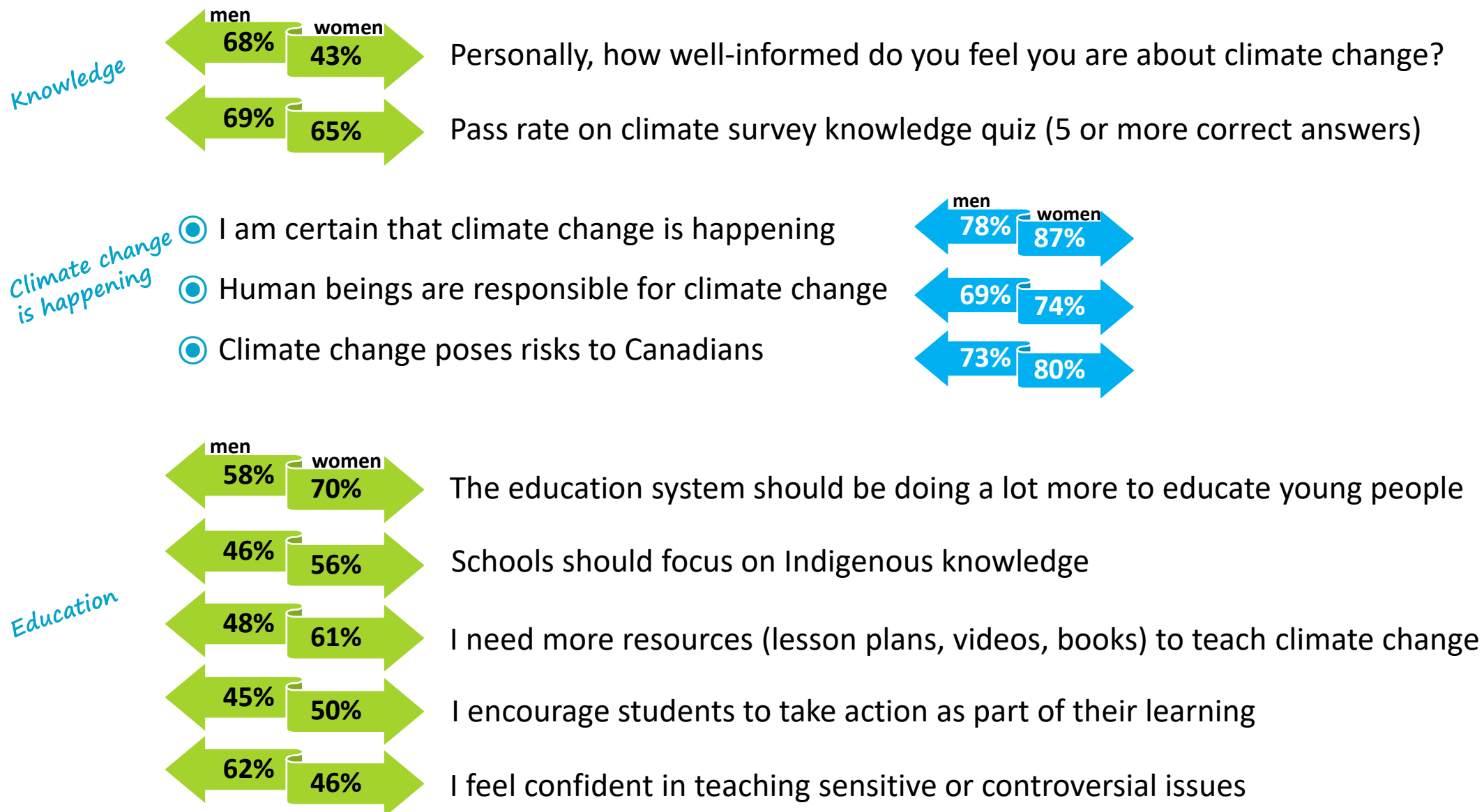
\* MB, SK and ATL educator data are from open-link survey

# Final Perceptions

- ▷ Gender Differences
- ▷ Pandemic Influences
- ▷ Youth Empowerment



# Climate change perceptions by gender



NOTE: Non-binary demographic represented 1% of the sample and therefore did not undergo statistical analysis.



# How have Canadians' views on climate change changed due to the pandemic?



Lessons from COVID-19 have influenced perspectives and increased awareness.

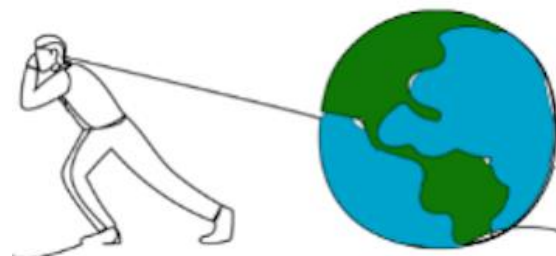
**68%** of Canadians <sup>(74% in ON)</sup>

agree the pandemic has helped them to recognize the importance of science to provide society with essential facts & evidence-based knowledge.



<sup>(62% in ON)</sup>

**60%** felt more concerned about climate change, having seen the denial expressed by many when faced with an acute global threat.



<sup>(74% in ON)</sup>

**74%** realize that no matter where we are in the world, we are all interconnected.



## Canadians are inspired by youth

**69%** of Canadians (**70% in ON**) think the work and voices of young people can inspire important climate action.

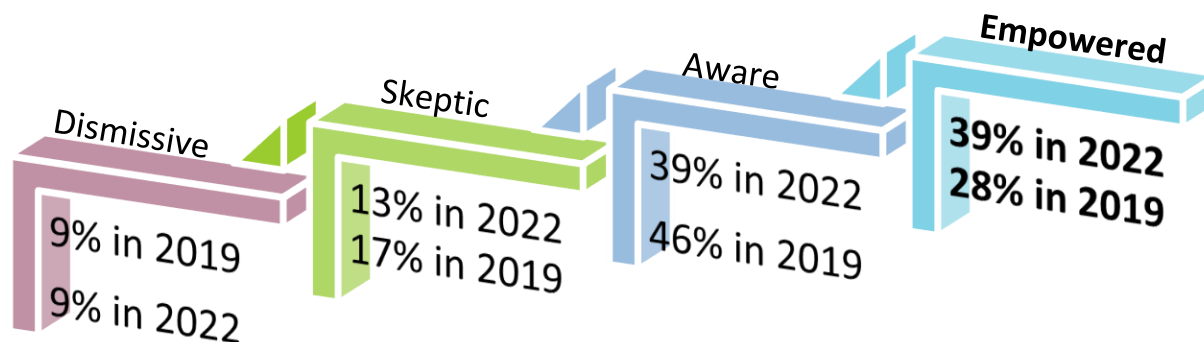
Not surprisingly, educators (**76%**) feel the most strongly about the inspiration provided by youth, **including ON educators (79%)**.

*"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)*

## Canadian students showed growth in the 'Ladder of Engagement'

*The ladder of engagement sorts individuals' answers into four audiences: dismissive, skeptics, aware, and empowered.*

Three of the four groups (educators, parents and general public), showed little change since 2019. However, in 2022, the percentage of students feeling "empowered" increased significantly, meaning more students felt that: Human-caused climate change is happening, AND there are things we can do to change it.



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



## Knowledge Mobilization Session Takeaways

The following slides synthesize the discussions and contributions of the Ontarians who joined LSF on March 8, 2023 for a Virtual Knowledge Mobilization Session. Participants who attended the session represented a wide variety of stakeholder groups.

During the session attendees were asked to participate in three, interactive activities. The results capture insights on the current reality of climate change education, priority actions, and next steps.

*Note: The comments included in the following summary are direct contributions of the Ontario stakeholders who participated in the March 8 KMS and do not necessarily reflect the views of LSF.*



## Current Reality of Climate Education

In order to get a better picture of the current reality of climate change education in Ontario, participants of the Knowledge Mobilization session responded to the following question:

***What do you feel is **helping** or **hindering** you in your efforts to promote climate change education – both formal and informal?***

*The results of this 'sticky note' brainstorm activity have been synthesized on the following slides.*

# THEMES on what is **HELPING** to promote climate change education. *(Results of the group brainstorm)*

## Supportive Colleagues/ Administration

Senior Level Support

New partnerships that lift and support complex understanding for Environmental Justice

Supportive colleagues

Supportive school board, supportive partnership between the school board and our municipality

Supportive environment. Active friends and colleagues

Supportive environment to advance climate action education

Community and support

## Resources/Funding

Resources and integration into organizational strategy

Funding

Lots of different funding options to support programming in this area

Collaborations with other ENGOs

Funding agents' acknowledgement of the costs of infrastructure needs connected with climate change

## Youth Leadership

Students feel the value in building a relationship with the more-than-human world; this is nudging the work in education to do more

Youth Voice & Inspiration

Student interest in the topic encourages teachers to pursue this topic

Student expectations and parental requests

Student interest: environmental groups often pick climate change efforts in one way or another

Student surveys showing it affects their mental health

Student engagement on the topic of climate change

## Indigenous Knowledge

Better understanding of First Nations perspectives and teachings connected to cultural Land-Based Learning

Indigenous voice and our work towards reconciliation

## Increased Awareness/ Current Events

Sad as it is, so many signs of it - heat domes, drought, intense high precipitation are all getting under people's skin

Knowledge and learning

The growing evidence that climate change is happening all around us

Greater recognition that climate change is, indeed, a reality, and a consequent public desire to address climate change mitigation in schools

So much more information out there, especially a big increase in mainstream media who are aggregating and disseminating news (CBC, CTV both have special feeds/shows/.segments)

Topic is relevant to our day to day

Social media

Overall interest/ current events

Interest from the public and parents

## Amplifying voices/ sharing expertise

More voices in support of addressing climate change

Collaboration across the education sector

Opportunities for larger engagement

The important need to educate others about this and people looking for 'experts' to communicate with their students about this complicated topic

Community/organizational Partnerships - immobilizing knowledge and resources

# THEMES on what is **HINDERING** efforts to promote climate change education. *(Results of the group brainstorm)*

## Lack of School/Community Interest

Small percentage of interest in local teachers requesting about CC education/support and the feeling less connected

Getting older generations involved

Lack of a national network to connect people

Not enough colleagues care or want to join in on the climate change education

Lack of support from colleagues & administrators

Lack of interest by others

Community interest

Apathy. Lack of knowledge

## Curriculum Barriers

Packed curriculum

Climate change is still siloed in the "usual suspects" curricula

Lack of proportional curriculum expectations dedicated to this topic given its importance

The pressure to teach all kinds of material in a destreaming environment makes teaching climate change difficult to prioritize

Perception of subjects taught

Strict timeline of school curriculum that disables teachers to teach other topics such as climate change while teaching their primary subject

Discipline/curriculum of Geography in Ontario covers all those areas mentioned earlier. Lack of awareness and support of discipline is a barrier. Not taught independently in other provinces

## Opposing Top-Down Priorities

Lack of Board-Level Strategies/Priorities that name Climate Change/Climate Justice

Funding to grow capacity for supporting climate change education work

Limited Funding

Priority in schools is reading, writing and math, especially to close gaps after COVID

Lack of budget and school board support

Environmental programs were cut during covid not being implemented

School board red tape- often seems irrational

## Resources/Professional Development

Limited connections between enviro awareness and enviro careers

Lack of quality and vetted resources

No idea where to start with it - the science? The news? The impacts? The how? It is overwhelming as an educator

Lack of subject based professional development

Insecurity in discussing these huge global issues

Lack of experience as a teacher. Everyone starts somewhere

Lack of awareness. Where are the resources? Lack of capacity

Hard to market climate change as fun

## Systemic barriers

The speed at which we work - government is slow

The government! They seem to be against doing what's right for the environment and are setting a poor example for the public

Peacock effect - lack of systems approach or praxis

## Media and Corporate Bias

Media bias, they mostly show issues climate change causes rather than new projects being worked on to mitigate climate change

Greenwashing and intentional distraction from corporate interests and lobby groups

## Socio-emotional

Apathetic students

Student trauma (climate change, covid, etc.)

Lack of feedback loops to make us feel good about our learning and action

# Sector Action Planning



Participants were divided into breakout rooms according to their sector, to collaborate on the following question: ***What should your sector specifically be doing to support climate change education?***

Individuals were given time to brainstorm and jot down ideas before discussing as a small group which actions should be identified as “**priority actions**”.

The six sectors represented in Ontario were:

- **Youth/Students**
- **Education Organizations**
- **NGOs**
- **Educators**
- **Businesses/Foundations**
- **Government**
- **Academics**

*The following slides illustrate the priority actions determined by each sector including supporting ideas and additional details related to these actions.*

# Youth/Student: Priority Actions

## Priority 1:

Empower youth to create change

- Encourage youth to lead activities that create awareness and eco-participation in the school (e.g. clubs, activities, and sharing stories)
- Make environmental initiatives more engaging and student-friendly so that those who are uninterested become interested.
- Show students the good things people are doing to help mental health.

## Priority 2:

Ask the government to take action

- Think critically about what is being taught in classrooms/curriculums and push to ensure youth are educated for climate change.
- Lead efforts to raise awareness of climate impacts on youth, and youth perspectives on climate change education to bring change on a wider level (e.g. Ministries of Education).
- Demand environmental initiatives at school and community level driven by youth perspectives

## Priority 3:

Engage peers in a positive and engaging way

- Use social media as a tool for people to learn more, especially for our peers.
- Find like-minded individuals to empower and inform others to raise their voice.
- Be active in our community, participating in initiatives in our school.

## Additional Priorities:

- Encourage more conversations about the new projects that are happening in the future energy space.
- Promote all the good that is already happening in the climate space to embed positivity in the culture.



# Education Organization: Priority Actions

## Priority 1:

**“Uncover” current curriculum expectations to address climate change**

- Advocate for the infusion of expectations about climate change across the curriculum in all subjects K-12.
- Advocate for better inclusion of climate change material (and time for properly teaching it!) in the Geography curriculum.
- Promote a culture of sustainable development to align with the 2022 SciTech Curriculum.

## Priority 2:

**Provide professional learning**

- Provide professional learning on climate change and sustainability through the continuum from initial teacher education through an educator’s career.
- Develop/share research, pedagogies, resources and teaching tools in an accessible format for educators and students.
- Model a “culture of hope” about our collective ability to solve/mitigate the climate change crisis.

## Priority 3:

**Advocate for inclusion of Indigenous ways of knowing and doing**

- Engage DIVERSE Indigenous nations, peoples and communities in climate change policy making and curriculum design.
- Ensure Indigenous voices and perspectives are included in conversations and policy making.
- Promote opportunities to address climate justice

## Additional Priorities:

- Facilitate networking of experts and knowledge to ensure that we are not reinventing the wheel
- Showcase Geography as a STEM subject that can include: pursuing tech mitigations around spatial education pieces and human-environment interactions

# NGOs: Priority Actions

## Priority 1:

Connect with, uplift and collaborate with other NGOs



- Connect and collaborate with other NGOs to share funding and best practices.
- Convene as a sector and strategically plan together around our shared goals.
- Conduct joint research projects to show the impact of our sector's work.
- Use our collective expertise to create PD sessions and resources to support teachers.
- Provide more interdisciplinary approaches rather than staying in subject matter expertise silos.

## Priority 2:

Incorporate and prioritize Indigenous perspectives



- Indigenous perspectives should underpin and frame everything.
- Incorporate Indigenous ways of knowing and help serve those communities as well as others that are historically underserved.
- Greater focus on collaborative climate change projects (Indigenous and Western focused).
- Support local Indigenous activism.

## Priority 3:

Prioritize student voice to ensure that programming and resources are relevant & reflective



- Create opportunities to fall in love with nature through hands-on, experiential, practical outdoor experiences that foster a sense of place and an emotional connection to nature without technology.
- Empower students to take positive action by helping them understand their individual power and collective action.
- Make things fun, hopeful and relevant to day to day lives.
- Normalize conversations about climate change and its impacts on student mental health.

## Priority 4:

Advocate for systems change.



- Advocate for curriculum reform to ensure climate change and adjacent issues are prioritized.
- Design and implement curriculum-linked and action-based resources and PD with input from school boards, educators, students, parents, etc.
- Build capacity among parents to advocate for support for educators, youth, and school districts.
- Help people imagine a better future, and how climate action can improve health, equity, prosperity for everyone.

## Additional Priorities:

- Shift the narrative from emphasizing the costs of climate change to emphasize the benefits and focus on measurable & meaningful outcomes.
- Support partnerships between NGOs, school boards and municipal govts.

# Educators: Priority Actions

## Priority 1:

Board-wide culture that normalizes integration of climate change education



- Establish a board level steering committee with all stakeholders represented to support sustainability/climate change education, climate justice, and school/ community climate action.
- Provide time to collaborate with colleagues in school, in board subject areas, and provincially to develop a pan-Ontario approach.
- Model good practices at school.

## Priority 2:

Incorporate student voice and encourage student leadership



- Gather student input on what they would like available.
- Encourage student activism and support student ideas for projects.
- Provide supports around mental health specifically around climate change.
- Engage students and raise awareness through Social Media platforms.
- Support a student led Climate Declaration .

## Priority 3:

Help teachers connect climate change/sustainability to curriculum.



- Engage school boards, teacher federations and NGOs to develop and provide PD and resources.
- Develop a Climate Change Additional Qualification course for educators.
- Support colleagues in non-science/ geography courses who may have more difficulty integrating climate change.
- Create a platform that connects local organizations and institutions with schools, so educators are aware of what is going on in their area.

## Additional Priorities:

- Embed the UN SDGs to connect to the larger community including parent groups and create community partnerships.
- Share and celebrate success stories and strategies around what has worked well.



# Business/Foundation: Priority Actions

## Priority 1:

Show how support from businesses to NGOs will be communicated to target audiences.



- Corporate funding often comes from sponsorship - need to provide brand visibility.
- Provide employee engagement as part of funding support.
- Recognition of companies is important.

## Priority 2:

Emphasize support for both saving the planet and addressing climate change anxiety.



- Support NGOs in delivering more resources & teacher education.
- Provide support for a curriculum change pilot.
- Engage in supporting schools where appropriate.

## Priority 3:

Encourage better education at all levels to develop a workforce that is more climate literate



- Businesses need a talent pool of climate literate candidates.
- Push provincial governments to enhance climate change outcomes in their curriculum.

## Additional Priorities:

- Help NGOs source additional funds
- Participate on government committees and working groups to help influence advancement of climate change education

# Government: Priority Actions

## Priority 1:

Ensure availability and accessibility of reliable climate data and information



- Provide outreach to schools by linking provincial and national parks to climate change through fun and engaging approaches.

## Priority 2:

Use engaging methods to communicate climate change information to the public and schools



- Communicate to a wide variety of audiences.
- Engage people to understand why they should care and what they can do.

## Priority 3:

Enhance collaboration and communication between government departments and levels



- Have frequent discussions between federal departments to look for synergies without duplication.
- Collaboration & communication between federal and provincial government.

# Academics: Priority Actions

## Priority 1:

Build capacity for research, teaching and mentoring



- Enhance research, case studies, and mentoring of secondary students by post-secondary students.
- Undertake research that focuses on the pedagogy of hope and the gender divide.
- Build capacity of primary and secondary teachers through professional development.

## Priority 2:

Make climate change education a priority within all faculties of education



- Include climate change as a priority in Faculty mission statements/values.
- Faculties of Education should be leaders in climate change education and integrate sustainability and climate change into every BEd course.
- Universities need to take a holistic approach to sustainability and explain to students and other academic institutions why it is necessary for the future of our planet

## Priority 3:

Re-envision the way Faculties teach and prepare teachers



- Co-create curriculum with students.
- Re-envision our way of thinking about and the teaching strategies to transform our students towards sustainability thinking and climate action.
- Emphasize global citizenship education through community service for students in their teaching and research.

## Additional Priorities:

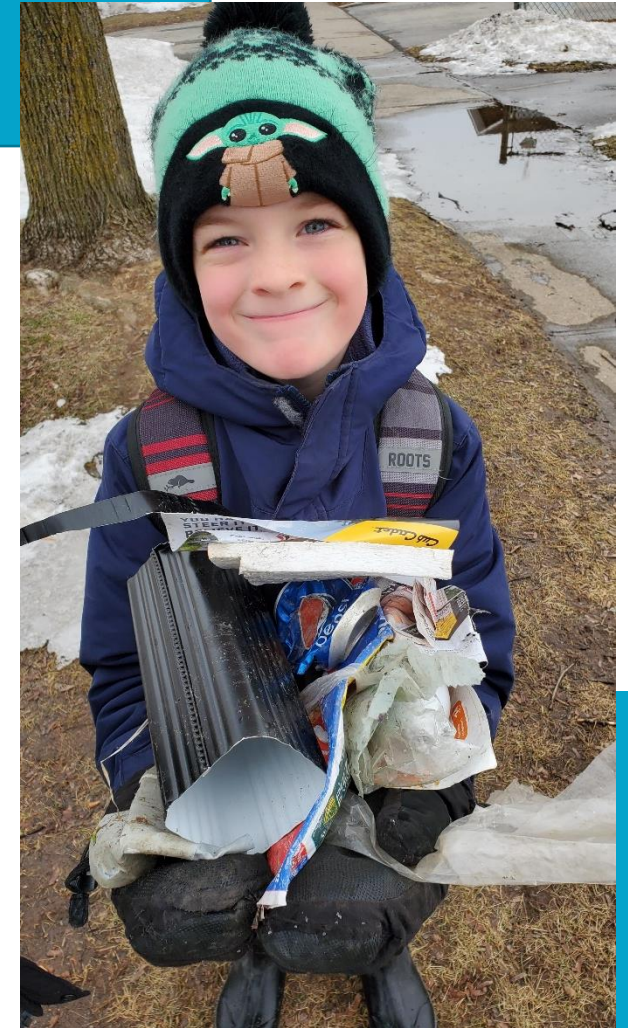
- Integrate studying abroad to increase students' interest and compassion, make other parts of the world visible/meaningful
- Shape environmental/climate career pathways as an 'action' opportunity for secondary students who then join us at the PSE sector

# Concluding Thoughts

Climate change mitigation and adaption will require **education**, support, and action at all levels of Canadian society.

The results of the climate change survey emphasized the need for enhanced climate change education to reduce climate change knowledge gaps, to support our educators, to empower our youth, and ultimately work towards the positive outcome of active citizenship for all Canadians.

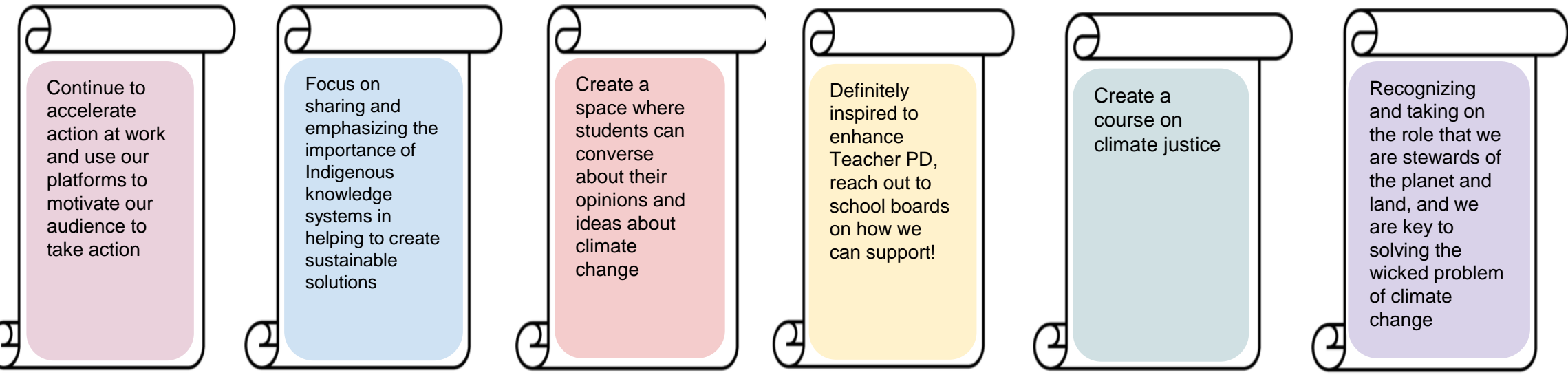
*How can you support these goals?*



## Action Pledges

At the conclusion of the Ontario Knowledge Mobilization Session, participants pledged to take an action to enhance climate change education.

**Some of the actions include:**



Continue to accelerate action at work and use our platforms to motivate our audience to take action

Focus on sharing and emphasizing the importance of Indigenous knowledge systems in helping to create sustainable solutions

Create a space where students can converse about their opinions and ideas about climate change

Definitely inspired to enhance Teacher PD, reach out to school boards on how we can support!

Create a course on climate justice

Recognizing and taking on the role that we are stewards of the planet and land, and we are key to solving the wicked problem of climate change

Advancing climate change education requires commitment and collaboration from all sectors. Thank you to the Ontario education, government, business, NGO, academia, and youth representatives who joined us to discuss this important work, and who pledged to take-action on this issue.

# Climate Change Resources for educators – shared by participants (Page 1)

	Resource Name	Website link
1	<b>LSF Resources for Rethinking</b> (database of over 1,700 teacher-reviewed, curriculum-based resources)	<a href="https://lsf-lst.ca/resources/database-resources-for-rethinking/">https://lsf-lst.ca/resources/database-resources-for-rethinking/</a>
2	<b>LSF Classroom Climate Guides “Empowering Learners in a Warming World”</b> (K-2, Gr 3-6; Gr 7-12)	<a href="https://lsf-lst.ca/resources/empowering-learners-in-a-warming-world/">https://lsf-lst.ca/resources/empowering-learners-in-a-warming-world/</a>
3	<b>LSF Green Jobs Videos: <i>Adapting to our Changing Climate</i> (gr. 9-12)</b>	<a href="https://lsf-lst.ca/resources/green-jobs/">https://lsf-lst.ca/resources/green-jobs/</a>
4	<b>Commit2Act</b> - environmental action tracking platform to quantify and encourage ongoing engagement	<a href="https://commit2act.netlify.app/">https://commit2act.netlify.app/</a>
5	<b>Kids Cutting Carbon</b> - free on-demand classroom lessons for youth (video). New edition coming April 2023 (covers climate 101 + systems-wide solutions + how we can help create change)	<a href="https://www.civicecology.org/">https://www.civicecology.org/</a>
6	<b>Summer institute Canadian Cohort for educators to learn about climate change and how to bring it into classrooms more</b>	<a href="https://climategen.org/summer-institute/summer-institute-for-climate-change-education-registration/">https://climategen.org/summer-institute/summer-institute-for-climate-change-education-registration/</a>
7	Natural Curiosity Webinar - <b>How Everything is Related: The Potential of Indigenous Perspectives in Education</b> (with Niigaan Sinclair)	<a href="https://www.naturalcuriosity.ca/">https://www.naturalcuriosity.ca/</a> <a href="https://oise.jotform.com/rosa.na/how-everything-is-related">https://oise.jotform.com/rosa.na/how-everything-is-related</a>
8	<b>Our Climate Quest</b>	<a href="https://climate.sciencenorth.ca">https://climate.sciencenorth.ca</a>
9	<b>Civic Ecology Lab</b> at Cornell University Continuing Ed offers online courses on CC, CC Communications, CC Action and CC Education	<a href="https://www.civicecology.org/">https://www.civicecology.org/</a>
10	<b>Education for Sustainability and Env. hub</b> for teacher educators	<a href="https://eseinfacultiesofed.ca">eseinfacultiesofed.ca</a>
11	<b>Project Drawdown</b> (An extensive resource for climate solutions)	<a href="https://drawdown.org/">https://drawdown.org/</a>



# Climate Change Resources for educators – shared by participants (Page 2)

	Resource Name	Website link
12	Julian Agyeman's Keynote, EECOM 2021,	<a href="#">“Just Sustainabilities in Urban Planning and Practice”</a>
13	<b>GenAction Program</b> (Canadian Association of Science Centres, Discovery Centre, Science North, Exploration Place)	<a href="https://genaction.ca/en">https://genaction.ca/en</a>
14	<b>Race and Nature in the City Report</b> (Nature Canada)	<a href="https://naturecanada.ca/race-and-nature-in-the-city/">https://naturecanada.ca/race-and-nature-in-the-city/</a>
15	<b>Recolour the Outdoors</b> (Video)	<a href="#">TedTalk by Alex Bailey</a>
16	<b>Decolonizing Birds</b> (see webinar) Toronto Public Library:	<a href="https://www.crowdcast.io/e/tpldecolonizingbirds/register">https://www.crowdcast.io/e/tpldecolonizingbirds/register</a>
17	<b>Braiding Sweetgrass for Young Adults</b> by Robin Wall Kimmerer (Author), Monique Gray Smith (Author), Nicole Neidhardt (Illustrator)	<a href="https://outdoorlearningstore.com/product/braiding-sweetgrass-for-young-adults/">https://outdoorlearningstore.com/product/braiding-sweetgrass-for-young-adults/</a>
18	<b>Climate Change Atlas of Canada</b> - (Interactive climate change map of Canada, great for geography teachers)	<a href="ClimateAtlas.ca">ClimateAtlas.ca</a>
19	<b>A Bigger Picture: My Fight to Bring a New African Voice to the Climate Crisis</b> by Vanessa Nakate (Book)	<a href="https://www.goodreads.com/en/book/show/56817598-a-bigger-picture">https://www.goodreads.com/en/book/show/56817598-a-bigger-picture</a>
20	Chelsea   Activist. <b>She_colorsnature Diversity in the outdoors. EXPEDITION RECLAMATION</b>   The Trailer - reclaiming Black, Indigenous and women of color's belonging in the outdoors.	<a href="https://shecolorsnature.com/">https://shecolorsnature.com/</a>
21	<b>Green Umah</b>	<a href="https://greenummah.org/">https://greenummah.org/</a>
22	<b>GreenLearning</b> (education resources about energy, climate change and green economy).	<a href="https://greenlearning.ca/resources">https://greenlearning.ca/resources</a>
23	<b>National Network for Ocean &amp; Climate Change Interpretation</b> –looking to bring this program/training to Canada (Toronto Zoo is involved in this) to build capacity of educators on this	<a href="https://climateinterpreter.org/about/projects/NNOCCI">https://climateinterpreter.org/about/projects/NNOCCI</a>

# Climate Change Resources for educators – shared by participants (Page 3)

	Resource Name	Website link
24	Association of Canadian Deans of Education Accord on Education for a Sustainable Future	<a href="https://csse-scee.ca/acde/publications-2/">https://csse-scee.ca/acde/publications-2/</a>
25	Pathway to Stewardship and Kinship	pathwayproject.ca
26	Polar Bears International	<a href="https://polarbearsinternational.org/education-center/teaching-and-learning-materials/">https://polarbearsinternational.org/education-center/teaching-and-learning-materials/</a>
27	Globe and Mail Article: <b>Ravines are a Toronto treasure, but everyone needs an equal chance to enjoy them</b>	<a href="https://www.theglobeandmail.com/canada/article-ravines-are-a-toronto-treasure-but-everyone-needs-an-equal-chance-to/">https://www.theglobeandmail.com/canada/article-ravines-are-a-toronto-treasure-but-everyone-needs-an-equal-chance-to/</a>
28	<b>Queer Nature</b> , Nature connection and place-based skills for LGBTQIA, Two-Spirited, non-binary people and allies	<a href="https://www.queernature.org/">https://www.queernature.org/</a>
29	<b>Parks in Canada</b> (Network in Canadian History and Environment: article around racism in our parks.)	<a href="https://niche-canada.org/2020/09/09/race-revisited-in-canadian-national-parks/">https://niche-canada.org/2020/09/09/race-revisited-in-canadian-national-parks/</a>
30	<b><i>The shady past of Parks Canada: Forced out, Indigenous people are forging a comeback</i></b> (National Post article)	<a href="https://nationalpost.com/news/canada/the-shady-past-of-parks-canada-forced-out-indigenous-people-are-forging-a-comeback">https://nationalpost.com/news/canada/the-shady-past-of-parks-canada-forced-out-indigenous-people-are-forging-a-comeback</a>
31	<b><i>What You Should Know about Black Birders</i></b> (The Conversation article)	<a href="https://theconversation.com/what-you-should-know-about-black-birders-139812">https://theconversation.com/what-you-should-know-about-black-birders-139812</a>
32	Intersectional Sustainability: Green Girl Leah - founder of <a href="https://www.intersectionalenvironmentalist">@intersectionalenvironmentalist</a>	<a href="https://www.greengirlleah.com/">https://www.greengirlleah.com/</a>
33	<b>Green careers</b> (Project Learning Tree Canada)	<a href="https://pltcanada.org/en/green-jobs/">https://pltcanada.org/en/green-jobs/</a>

For full climate change survey results, visit:

**Canadians' Perspectives on Climate Change & Education**

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

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