

Canadians' Perspectives on Climate Change & Education: 2022 British Columbia Provincial Report



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To view the National Report, visit: 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.



Canadians' Perspectives on Climate Change & Education: 2022
British Columbia Provincial Report

Section 1: Introduction

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. 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.

This *British Columbia Provincial Report* provides the highlights from the full national report and gives additional results based on further analysis of British Columbia data. The findings presented here help 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.

Acknowledgements

We recognize that the lands we live, work, teach and learn from are the traditional territories of Indigenous peoples and that all Canadians benefit from this land. We recognize the importance of Indigenous perspectives and connections to land and place as we work towards reconciliation to address the Calls to Action of the Truth and Reconciliation Commission.

This survey is a follow-up to a climate change education survey that was undertaken in 2019 by Dr. Ellen Field at Lakehead University (with funding from SSHRC), Learning for a Sustainable Future and Leger. The 2022 survey design and data analysis was led by Pamela Schwartzberg, Learning for a Sustainable Future President and CEO; Jennifer Stevens, LSF Manager of Learning, Research and Communication, and LSF consultants Dr. Karen Acton and Dr. Susan Elliott. Leger Research Intelligence Group provided data collection and analysis. Elaine Rubinoff, LSF Director of Programs, and Samantha Gawron, Manager of Programs, Engagement & Development provided survey promotion.

Thank you to the Canadian Teachers' Federation and many other teacher organizations, as well as LSF's communication partners for circulating the survey to their members. We would also like to thank the 406 educators, 1,373 parents, 1,208 students and 1,290 members of the general public who participated in the Leger panel, and the 1,237 educators, 462 parents, 586 students and 391 members of the general public who participated through the open survey link on the LSF site.

We would like to thank the Government of Canada for their financial support.



Methodology

Population Segmentation

For this survey, the following populations were identified:

- Educators public and private K-12/cégep teachers, educational assistants, department heads, curriculum leads and curriculum consultants, vice-principals, principals, and district leaders
- Students includes current students from grades 7 to 12/cégep
- Parents includes parents of students in K-12/cégep
- General Public includes participants who do not identify as educators, students, or parents.

Recruitment Procedures

Leger Research Intelligence Group provided data collection and analysis on behalf of Learning for a Sustainable Future (LSF). Leger panelists received an email invitation to complete the survey with a unique link for each respondent. All respondents from the Leger panel (LEO) are referred to as "panel". From the Leger Web Survey, a total of 4,035 Canadians were surveyed in English and French. This report contains the results for the "panel" data.

Due to the limits of the LEO platform to survey the desired 1000 educators, the survey relied on a multi-sampling approach where additional responses were collected through convenience and snowball sampling through an open survey link hosted on LSF's website. Many teacher affiliations and education-related organizations assisted with the promotion of the survey through their provincial and territorial networks.

Data Collection and Analysis

As part of the analysis process, the data are weighted by age, gender and province (based on Statistics Canada proportions) to ensure that data are representative of the Canadian public and reflective of Canadian opinion. Demographic data is presented in its unweighted form.

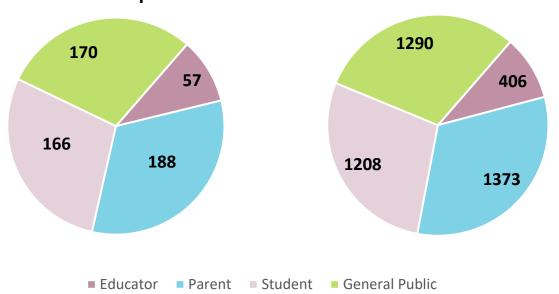
From the sample that was collected through the LSF open-link, a total of 2,461 completed surveys were received from November 9, 2021 to March 6, 2022. The supplemental open-link data was used where Leger panel data was insufficient, and was thus only needed to augment the educator respondent data for SK, MB and ATL in the provincial reports.

See the methodology section of the full national report for further details.

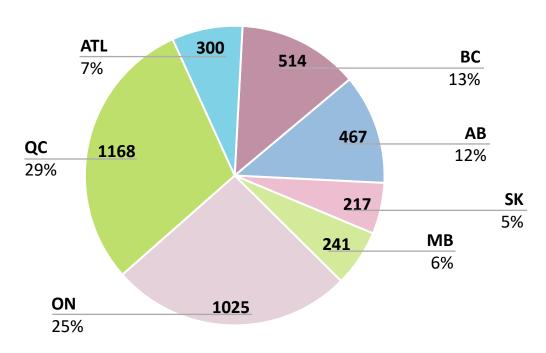
2022 Demographics

British Columbia Respondent Groups

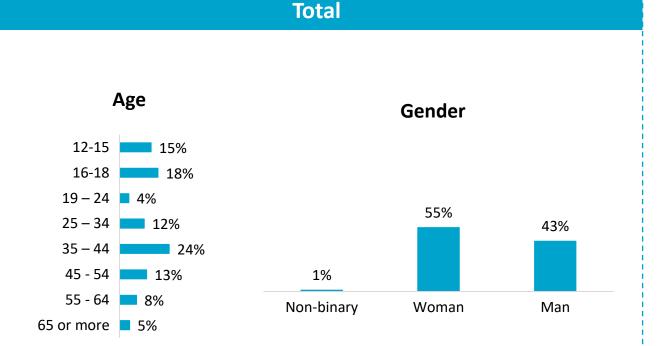
National Respondent Groups

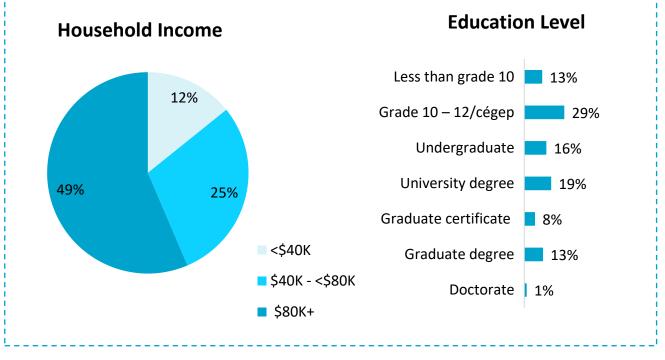


National Respondents by Province/Region



2022 British Columbia Demographics







Canadians' Perspectives on Climate Change & Education: 2022
British Columbia Provincial Report

Section 2: What has changed since 2019?

Overall Climate Change Knowledge

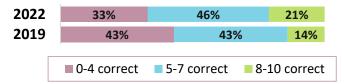
Respondents were asked 10 climate change questions early in the survey, to test their knowledge and understanding. Each question had a correct answer. The number of correct responses per respondent group and province/region are shown on the following slide, and responses from selected questions are shown on subsequent slides. Below are the 10 questions respondents were asked, with the answers in bold:

- B1. Do you think climate change is...
 - a. Caused mostly by human activities
 - Caused mostly by natural changes in the environment
 - c. About equally caused by both human activities and natural changes
 - d. Not happening
 - e. Don't know
 - f. Other (please specify)
- B2. Which comes closest to your own view?
 - a. Most climate scientists think climate change is happening
 - b. Most climate scientists do not think climate change is happening
 - There is a lot of disagreement among climate scientists about whether climate change is happening or not
 - d. Don't know enough to say
- B3. Climate change is caused by....
 - a. Emissions from nuclear power plants
 - b. Thinning of the ozone layer
 - c. Particulate air pollution
 - d. Carbon dioxide and other greenhouse gases
 - e. Industrial chemicals
 - f. Natural variability
 - g. Unsure
- B4. The main process behind climate change is...
 - a. Letting more of the sun's heat into the Earth's atmosphere through a thinner ozone layer
 - b. An increase in gases in the Earth's atmosphere that trap heat
 - c. An increase in solar activity
 - d. Particulate pollution in the air reflecting heat back to Earth
 - e. Unsure
- B5. Canada, as an Arctic nation, is particularly affected by the impacts of climate change
 - a. True
 - b. False
 - c. Unsure

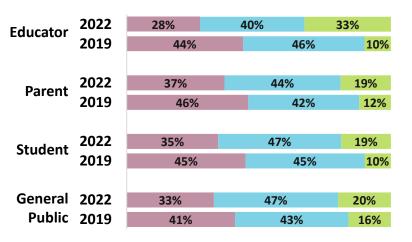
- B6. Canada's average temperature has _____ since 1948.
 - a. Decreased by 1 1.5 degrees Celsius
 - b. Decreased by 1 0.5 degrees Celsius
 - c. Decreased by 0.5 0 degrees Celsius
 - d. Stayed the same
 - e. Increased by 0 0.5 degrees Celsius
 - f. Increased by 0.5 1 degrees Celsius
 - g. Increased by 1 1.5 degrees Celsius
 - h. Unsure
- B7. What sector is currently the largest greenhouse gas emitter in Canada?
 - a. Agriculture
 - b. Heavy industry
 - c. Electricity
 - d. Buildings
 - e. Oil and gas
 - f. Transportation
 - g. Waste
 - h. Unsure
- B8. In the next 20 years, Canadian winters are predicted to be colder and to have more snow.
 - a. True
 - b. False
 - c. Unsure
- B9. At what minimum temperature change does scientific consensus predict global warming will result in major consequences to health, livelihoods, food security, water supply, and economic growth?
 - a. 0 degrees Celsius
 - b. 0.5 degrees Celsius
 - c. 1 degree Celsius
 - d. 1.5 degrees Celsius
 - e. 2 degrees Celsius
 - f. 2.5 degrees Celsius
 - g. Don't know
- B10. What do countries need to do in order to ensure temperatures stay within the range that the Earth system can tolerate?
 - a. Significantly increase emissions
 - b. Moderately Increase emissions
 - c. Do nothing
 - d. Moderately decrease emissions
 - e. Significantly decrease emissions
 - f. Move to net zero emissions Don't know

Overall Climate Change Knowledge

Total Correct Answers



Total Correct Answers – Respondent Group

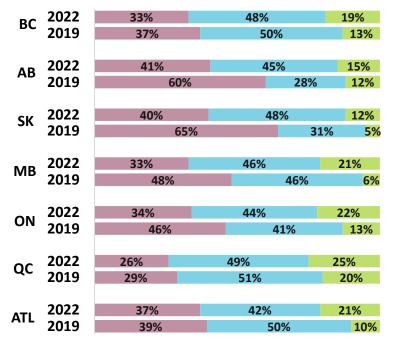


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,191 (Educator=111, Parent=571, Student=486, General Public=908)

Overall climate change knowledge has increased since 2019, as more Canadians passed the 10 question climate change test embedded in the survey (67% passed in 2022 vs. 57% 2019).

Furthermore, significantly more educators passed with over 80% in 2022 vs. 2019 (33% vs. 10%), as did parents (19% vs. 12%), students (19% vs. 10%), and the general public (20% vs. 16%).

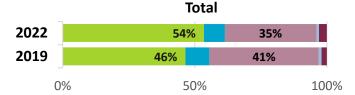
Total Correct Answers – Province/Region



Climate change knowledge has also increased regionally across Canada with the majority showing improvement on the climate change knowledge test.
Significantly fewer failed in AB, SK, MB and ON.

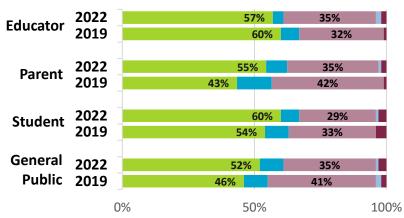
Furthermore, significantly more respondents were able to answer 8 or more questions correctly in BC SK, MB, ON, QC and in ATL. While AB and SK have improved, their scores remain lower than the rest of Canada.

Do you think climate change is...



- Caused mostly by human activities (correct)
- Caused mostly by natural changes in the environment
- About equally caused by both human activities and natural changes
- Not happening
- Don't know

Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,188 (Educator=111, Parent=571, Student=484, General Public=907)

A majority of respondents were correct in their thinking that climate change is caused mostly by human activities. More respondents in 2022 answered correctly (54%) than in 2019 (46%), which is fairly consistent across most respondent groups. Parents showed the largest gains (55% in 2022 vs. 43% in 2019). However, slightly fewer educators answered correctly in 2022 (57%) than in 2019 (60%).

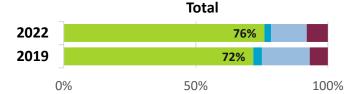
Notably, a proportion (35%) still think climate change is equally caused by both human activities and natural changes, although this number has decreased since 2019 (41%).

	Caused mostly by human activities (correct)					
Province	2019	2022	(+/-)			
ВС	47%	59%	+12			
AB	28%	40%	+12			
SK	29%	41%	+12			
MB	39%	50%	+11			
ON	46%	55%	+9			
QC	57%	60%	+3			
ATL	51%	44%	-7			

The percentage of respondents who were able to answer this question correctly in 2022 increased across all regions compared to 2019, other than in ATL.

Correct responses increased from +3 percentage points in QC to +12 percentage points in BC, AB, and SK between 2019 and 2022.

Which comes closest to your own view?

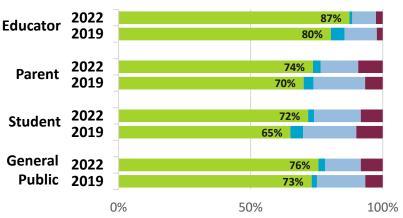


- Most climate scientists think climate change is happening (correct)
- Most climate scientists do not think climate change is happening
- There is a lot of disagreement among climate scientists about whether climate change is happening or not
- Don't know enough to say

A majority of respondents hold the correct belief that most climate scientists think climate change is happening. Slightly more respondents hold this view in 2022 (76%) than did in 2019 (72%).

Similarly, more respondents from each respondent group in 2022 hold this view, than did in 2019. The largest increase in correct responses from 2019 to 2022 was seen in educators and students, with an increase of +7 percentage points.





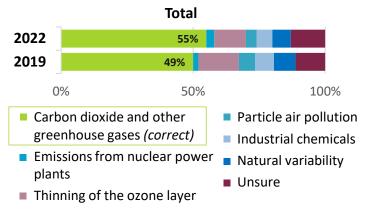
2022: *n*=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: *n*=2,189 (Educator=110, Parent=571, Student=486, General Public=907)

	Most climate scientists think climate change is happening (correct)					
Province	2019	2022	(+/-)			
ВС	78%	79%	+1			
AB	61%	73%	+12			
SK	52%	73%	+21			
МВ	70%	70%	-			
ON	70%	76%	+6			
QC	81%	77%	-4			
ATL	67%	77%	+10			

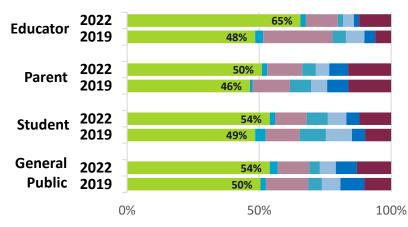
The percentage of respondents who were able to answer this question correctly in 2022 increased across all regions compared to 2019, except for QC, which decreased by 4 percentage points, and MB which stayed consistent with 2019 answers.

Correct responses increased from +1 percentage points in BC to +21 percentage points SK.

Climate change is caused by...



Respondent Group



In terms of understanding the scientific causes of climate change, just over half (55%) of respondents in 2022 answered correctly, that carbon dioxide and other greenhouse gases are the primary cause of climate change, compared with less than half (49%) in 2019.

Educators showed the largest increase in correct answers to this question (65% vs. 48%). Parents remained the most 'unsure' with only half choosing the correct response.

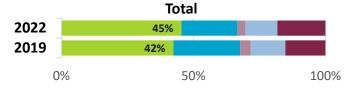
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,191 (Educator=111, Parent=571, Student=486, General Public=908)

	Carbon Dioxide and other greenhouse gases (correct)					
Province	2019	2022	(+/-)			
ВС	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			

The percentage of correct answers to the cause of climate change increased for respondents in all provinces aside from those in ATL.

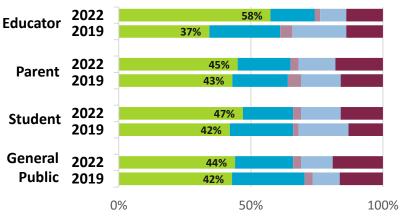
SK had the largest increase in correct responses from 2019 to 2022, with significantly more respondents in SK answering this question correctly in 2022 (52%) than in 2019 (34%).

The main process behind climate change is...



- An increase in gases in the Earth's atmosphere that trap heat (correct)
- Letting more of the sun's heat into the Earth's atmosphere through a thinner ozone layer
- An increase in solar activity
- Particulate pollution in the air reflecting heat back to Earth
- Unsure





2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,184 (Educator=110, Parent=571, Student=486, General Public=903)

Less than half of all respondents were able to answer correctly that the main process behind climate change is an increase in gases in the Earth's atmosphere that trap heat. The percent of correct answers increased slightly from 2019 (42%) to 2022 (45%).

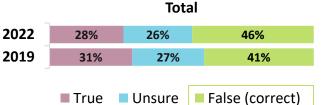
While all respondent groups showed gains in answering correctly in 2022, educators showed the most improvement in understanding the main process behind climate change (58% in 2022 vs. 37% in 2019).

	An increase in gases in the Earth's atmosphere that trap heat (correct)					
Province	2019	2022	(+/-)			
ВС	48%	45%	-3			
AB	43%	45%	+2			
SK	25%	38%	+13			
MB	38%	43%	+5			
ON	41%	44%	+3			
QC	46%	51%	+5			
ATL	39%	42%	+3			

The percentage of respondents who answered this climate change question correctly increased for respondents in all provinces aside from those in BC.

Correct responses increased from +2 percentage points in AB to +13 percentage points in SK between 2019 and 2022.

In the next 20 years, Canadian winters are predicted to be colder and to have more snow



Respondent Group



2022: *n*=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: *n*=2,190 (Educator=111, Parent=571, Student=486, General Public=907)

		False (correc	ct)
Province	2019	2022	(+/-)
ВС	38%	37%	-1
АВ	43%	42%	-1
SK	37%	42%	+5
MB	35%	42%	+7
ON	41%	43%	+2
QC	45%	58%	+13
ATL	41%	48%	+7

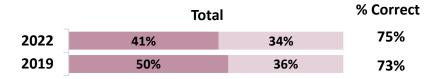
When asked if in the next 20 years, Canadian winters are predicted to be colder and to have more snow, less than half of all respondents answered correctly that the statement was false. Slightly more respondents in 2022 (46%) answered correctly than did in 2019 (41%). Over one-quarter of all respondents remained unsure.

Correct responses increased across all respondent groups other than in the general public, where correct responses stayed consistent between 2022 and 2019 (45%). Significantly more students and educators correctly answered that this question in 2022 (both groups up by 12 percentage points).

The percentage of correct responses increased across all regions other than BC and AB where correct responses in these two provinces each dropped by 1 percentage point from 2019 to 2022.

Correct responses increased from +2 percentage points in ON to +13 in QC from 2019 to 2022.

What do countries need to do in order to ensure temperatures stay within a tolerable range?



- Significantly Decrease Emissions
- Move to Net Zero Emissions

% Correct (Significantly decrease emissions or move to net zero emissions)

		Responde	nt Group	% Correct
Educator	2022	41%	38%	79%
Educator	2019	53%	42%	76%
Daront	2022	45%	31%	76%
Parent	2019	51%	36%	73%
Student	2022	45%	30%	76%
Student	2019	46%	31%	65%
General	2022	40%	34%	74%
Public	2019	51%	36%	74%

need to do to ensure temperatures stay within a tolerable range, about three-quarters of respondents were able to answer correctly, that countries should either significantly decrease emissions or move to net zero emissions. Responses were similar but slightly improved in 2022 (75%) compared to 2019 (73%).

When asked what countries

Correct responses increased across all respondent groups other than the general public, where correct responses stayed consistent between 2022 and 2019 (74%). Students had the largest increase in correct responses from 2019 (65%) to 2022 (76%).

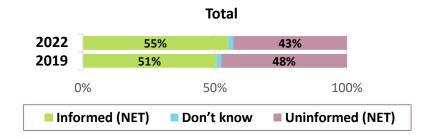
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,189 (Educator=111, Parent=571, Student=486, General Public=906)

	% Correct (Significantly decrease emissions or move to net zero emissions)					
Province	2019	2022	(+/-)			
ВС	71%	76%	+5			
AB	64%	65%	+1			
SK	60%	70%	+10			
MB	74%	66%	-8			
ON	74%	76%	+2			
QC	82%	78%	-4			
ATL	68%	75%	+7			

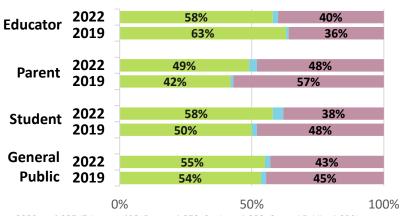
The percentage of correct responses varied across all province/regions from 2019 to 2022. Most had an increase in correct responses, however in MB and QC correct responses decreased by -8 to -4 percentage points, respectively.

Correct responses increased from +1 percentage points in AB to +10 in SK from 2019 to 2022.

How well-informed do you feel you are about climate change?



Respondent Group



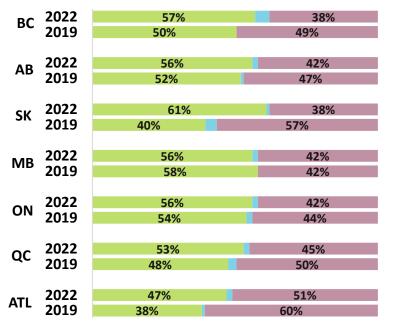
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,188 (Educator=110, Parent=571, Student=485, General Public=907)

Most respondents (55%) in 2022 felt they were well-informed (very well-informed/fairly well-informed) about climate change, more than in 2019 (51%).

Parents (49%), students (58%), and the general public (55%) indicated feeling more well-informed in 2022 than in 2019 (42%, 50%, 54%, respectively).

Educators were the only group to feel less informed in 2022 than in 2019 (58% vs. 63% in 2019).

Province/Region



All respondents in provinces across Canada, other than in MB, indicated feeling more well-informed in 2022 than in 2019.

Those in SK felt the most well-informed (61%) in 2022, a significant increase from 2019 (40%). Residents in ATL felt the least well-informed (47%) in 2022, however, still notably more than in 2019 (38%)

Climate change education should be a high priority for schooling

Agree (NET)— Total

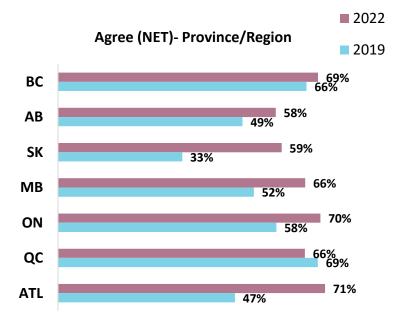


Agree (NET)- Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

2019: n=2,179 (Educator=111, Parent=570, Student=479, General Public=906)



Education is becoming a higher priority for Canadians. When asked if climate change should be a high priority for schooling, more respondents agreed in 2022 (67%) than in 2019 (59%).

Parents (64% vs. 53%), Students (66% vs. 57%) and the general public (67% vs. 60%) agreed significantly more in 2022 than they did in 2019.

Similarly, when asked if climate change education should be a high priority for schooling, a majority of respondents in 2022 across all regions in Canada agreed. Those in AB (58% vs. 49%), SK (59% vs. 33%), MB (66% vs. 52%), ON (70% vs. 58%), and those in ATL (71% vs. 47%) agreed significantly more than they did in 2019.

Notably, QC is the only region that decreased in agreement from 2019 to 2022.

In 2022, respondents in AB (58%) and SK (59%) agreed less than other provinces.



Section 3: What do Canadians think of Climate Change in 2022?

- Part 1: Knowledge Questions
- Part 2: Effects and Action
- Part 3: Climate Change Education
- Part 4: Teaching Climate Change

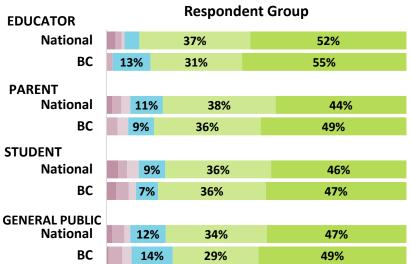


Part 1: Climate Change Perspectives and Knowledge

Part 1 assesses respondent knowledge, understanding, and perspectives on the cause, impact, and reality of climate change.

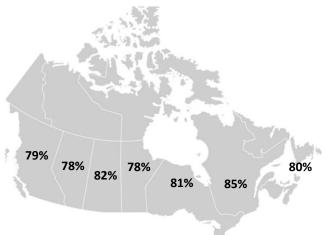
I am certain that climate change is happening.





National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n= 514 (Educator=57, Parent=188, Student=166, General Public=170) Responses less than 5% not labelled

Province/Region - % Agree (Strongly Agree/Agree)



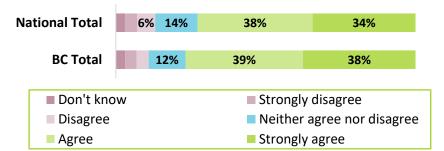
The overwhelming majority of Canadians acknowledge that climate change is a reality. When respondents were asked if they are certain that climate change is happening, 79% of respondents from BC agreed (strongly agree/agree) with this statement, which was consistent with national results (81%)

Educators both nationally (89%) and in BC (85%), are more likely to agree they are certain climate change is happening. Responses among BC residents are consistent with national responses across all respondent groups.

Provinces across Canada are in similar agreement, with a majority being certain that climate change is happening.

Regional agreement ranges from 85% in QC to 78% in AB and MB with BC falling near the middle at 79%.

We are experiencing a climate emergency



Respondent Group

EDUCATOR			
National	10%	42%	40%
ВС		59%	34%
PARENT			
National	8% 14%	38%	33%
ВС	7% 10%	44%	35%
STUDENT			
National	7% 13%	41%	31%
ВС	11%	54%	26%
GENERAL PUBLIC			
National	6% 14%	38%	34%
ВС	13%	36%	39%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170) Responses 5% or less not labelled.

Province/Region - % Agree (Strongly Agree/Agree)

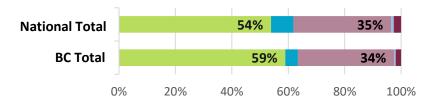


A large majority of Canadians believe that the climate change situation we are facing is extremely urgent. Close to three quarters of respondents nationally, (73%) and even more so in BC (77%) were in agreement that we are currently experiencing a climate emergency.

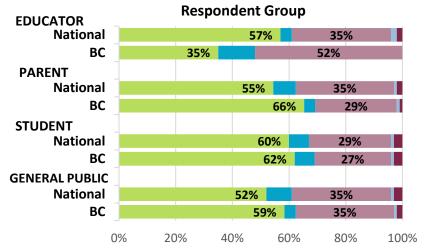
In British Columbia, overall, each respondent group was more likely to agree with this statement. Educators had the highest agreement overall, and educators in BC were more likely to agree (93%) than educators nationally (82%). As were parents (79% in BC vs. 71% nationally), and students (80% in BC vs. 72% nationally).

While most provinces are in agreement that we are experiencing a climate emergency, respondents in BC (77%), MB (79%), ON (74%), and QC (77%) have slightly higher levels of agreement overall. Those in AB (60%), SK (72%) and ATL (67%) were less likely to agree.

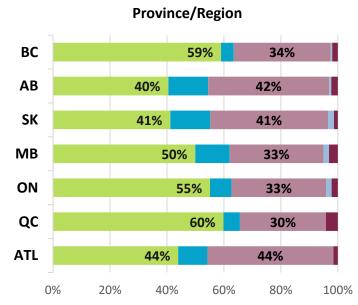
Do you think climate change is...



- Caused mostly by human activities (correct)
- Caused mostly by natural changes in the environment
- About equally caused by both human activities and natural changes
- Not happening
- Don't know



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170)



When asked in the survey what causes climate change, 54% of respondents nationally, and 59% of respondents in BC answered correctly that it is human caused.

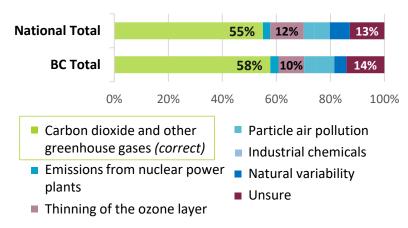
Around one-third, however, believed that climate change is equally caused by both human activities and natural changes (35% nationally, 34% in BC).

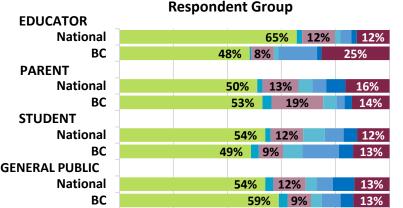
Educators nationally, were significantly more likely to answer correctly than educators in BC (57% nationally vs. 35% in BC), while parents were significantly more likely to answer correctly in BC than nationally (66% vs. 55%). Responses from students and members of the general public in BC are consistent with national responses.

The understanding and acceptance that climate change is human-caused, varies across regions with BC having the second highest agreement overall. Half or more in QC (60%), BC (59%), ON (55%), and MB (50%) agree that climate change is mostly caused by human activities. Less than half agree in AB (40%), SK (41%), ATL (44%).

Similarly, a notable percentage of respondent's across all regions indicated that climate change is equally caused by both human activities and natural changes.

Climate change is caused by...



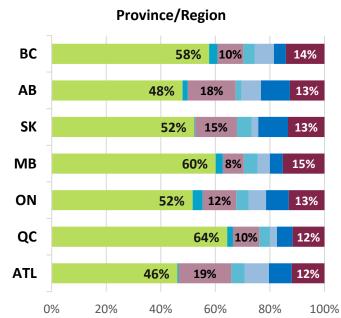


National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n= 514 (Educator=57, Parent=188, Student=166, General Public=170)

40%

20%

0%



60%

80%

100%

In terms of understanding the scientific causes of climate change, just over half of respondents nationally (55%) answered correctly, that carbon dioxide and other greenhouse gases are the primary cause of climate change, while close to three-in-five (58%) British Columbia respondents answered correctly.

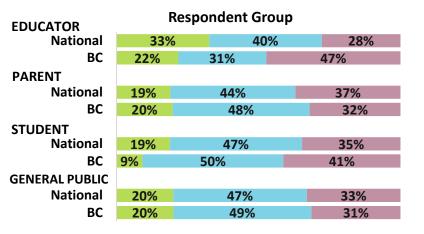
Educators were significantly more likely to answer this question correctly nationally (65%) than in BC (48%) and 25% of BC educators are unsure about the cause of climate change. Responses from parents, students, and members of the general public in BC are consistent with national responses.

Across provinces, there is a variation in the knowledge that carbon dioxide and other greenhouse gases are the principal cause of climate change ranging from 46% in ATL up to 64% in QC. BC scored in the upper half of the provincial variation at 58%.

A notable portion of respondents on average, are unsure of the cause of climate change or responded that climate change is caused by the thinning of the ozone layer.

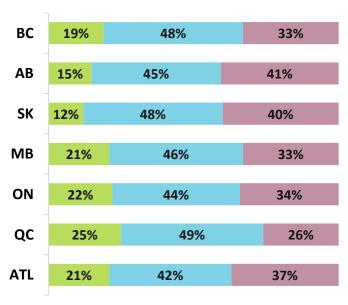
Number of correct answers to knowledge statements





National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170)

Province/Region



On average, 67% of respondents both nationally and in BC answered 5 or more of the knowledge questions correctly.

Nationally, educators were significantly more likely to answer 8 or more of the knowledge statements correctly (33%) yet BC educators scored significantly below average (22%).

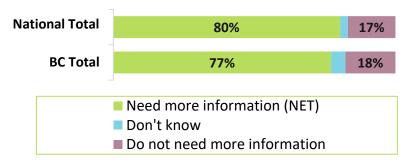
BC students were significantly less likely to answer 8 or more questions correctly compared to students nationally (9% vs. 19%). Responses from parents, and members of the general public are consistent with national responses.

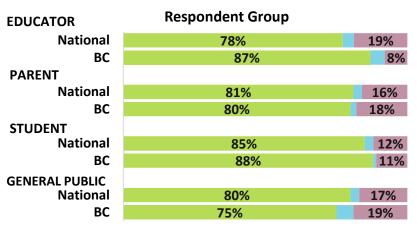
Provinces ranged between a 60% (AB and SK) to 74% (QC) success rate in answering 5 or more of the knowledge statements correctly. BC scored in the middle at 67%.

For the over 80% success rate, QC scored the highest with 25% of respondents getting 8 to 10 questions correct, followed closely by ON (22%). AB (15%) and SK (12%) had the fewest respondents answering 8 or more questions correctly.

BC and MB had the second lowest fail rate on this test at 33% just behind QC (26%).

How much information do you feel you need about climate change to form an opinion?

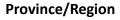


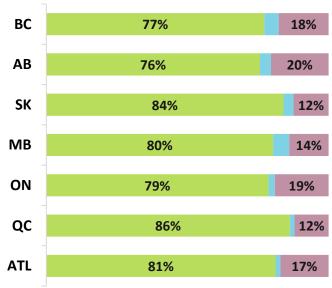


A large majority of Canadians would like more information about climate change. 80% of respondents nationally indicate they feel they need more information (a lot more, some more, a little more) about climate change to form a firm opinion. Similarly, 77% of respondents in BC indicate they also need more information.

Educators in BC are more likely than those nationally to state that they need more information (87% in BC vs. 78% nationally). Responses from parents, students and the general in BC are consistent with responses nationally.

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n= 514 (Educator=57, Parent=188, Student=166, General Public=170) Responses 6% or less not labelled.



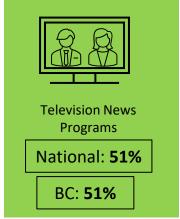


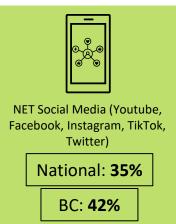
Provinces across Canada indicate they feel they need more information about climate change to form a firm opinion.

Respondents in QC are significantly more likely to indicate they need more information (86%), compared to respondents living in BC (77%), AB (76%), and ON (79%).

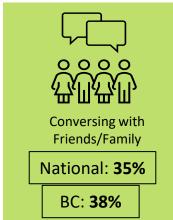
Which of the following do you use to inform yourself about climate change?

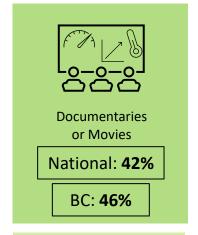
2022 Total













When asked which sources respondents use most to inform themselves about climate change, 51% of respondents nationally and in BC, indicated television news programs, followed by newspaper/online news websites (47% nationally, 49% in BC), documentaries and movies (42% nationally, 46% in BC), and various social media platforms (35% nationally, 42% in BC). Fewer respondents indicated conversing with friends/family (35% nationally, 38% in BC) and listening to radio news programs (22% nationally, 19% in BC).

Note: Respondent group and provincial data can be viewed on the following page Students both nationally and in BC are most likely to use various social media platforms to inform themselves about climate change (51% nationally and even more so in BC, 64%) and have conversations with family or friends compared to other respondent groups (43% nationally and 50% in BC). Educators in BC were significantly less likely to use Newspaper and/or online news websites (39% in BC vs 56% nationally). Regionally, using social media platforms is most common in BC (42%). Television news programs were more common in BC (51%), ON (53%), QC (58%) and ATL (52%) than in AB (36%). Using documentaries or movies were more common in BC (46%), and AB (44%) than in MB (28%).

Which of the following do you use to inform yourself about climate change? (continued)

Respondent Group

Sources of Information	Educators		Parents		Students		General Public	
	Nat.	ВС	Nat.	ВС	Nat.	ВС	Nat.	вс
Television news programs	56%	62%	44%	44%	31%	35%	54%	53%
Newspaper and/or online news websites	56%	39%	50%	56%	33%	33%	48%	50%
Documentaries or movies	44%	58%	44%	41%	34%	31%	42%	47%
NET Social Media (Youtube, Facebook, Instagram, TikTok, and Twitter)	35%	32%	36%	43%	51%	64%	33%	40%
Conversations with friends and family	33%	30%	34%	35%	43%	50%	34%	37%
Radio news programs	32%	33%	23%	26%	13%	14%	22%	18%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n= 514 (Educator=57, Parent=188, Student=166, General Public=170) $Top\ 6$ responses shown.

Province/Region

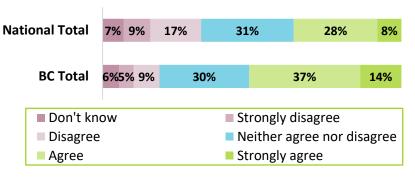
Sources of Information	ВС	АВ	SK	МВ	ON	QC	ATL
Television news programs	51%	36%	46%	46%	53%	58%	52%
Newspaper and/or online news websites	49%	45%	53%	44%	47%	50%	38%
Documentaries or movies	46%	44%	40%	28%	40%	43%	43%
NET Social Media (Youtube, Facebook, Instagram, TikTok, and Twitter)	42%	32%	32%	33%	36%	32%	30%
Conversations with friends and family	38%	37%	42%	29%	36%	28%	38%
Radio news programs	19%	20%	22%	21%	19%	29%	20%



Part 2: Climate Change Effects and Actions

Part 2 highlights respondent knowledge, understanding, and perspective on the impact of climate change and actions that can be taken.

I have personally experienced the effects of climate change

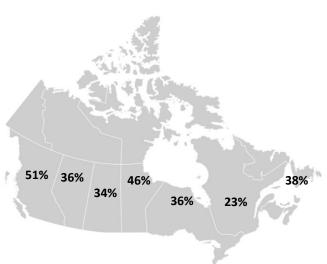


Respondent Group



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n= 514 (Educator=57, Parent=188, Student=166, General Public=170) Responses 5% or less not labelled.

Province/Region - % Agree (Strongly Agree/Agree)



Half of respondents in BC (51%) agree (strongly agree/agree) that they have personally experienced the effects of climate change. Nationally, significantly less respondents agree (36%). Just over one-quarter of respondents nationally (26%), and only 14% of BC respondents disagree.

Respondent groups across BC were much more likely to agree they have personally experienced the effects of climate change than respondents nationally. Particularly educators, (72% in BC vs. 43% nationally), parents (68% in BC vs. 41% nationally), and students (57% in BC vs. 32% nationally).

Regionally, with regards to having personally experienced the effects of climate change, respondents in BC (51%) agree the most.

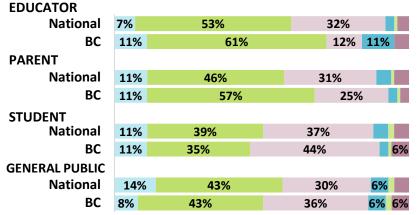
Those living in QC are less likely to agree (23%), especially compared to those in BC (51%), MB (46%), and ATL (38%).

Which of the following statements comes closest to your personal view?



- Humans can reduce climate change and we are going to do so successfully
- Humans could reduce climate change but it's unclear at this point whether we will do what's needed
- Humans could reduce climate change, but people aren't willing to change their behaviour so we're not going to
- Humans can't reduce climate change
- Climate Change isn't happening
- Don't know

Respondent Group



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170) Responses 5% or less not labelled

Province/Region



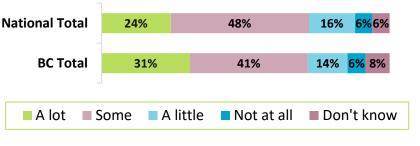
Over two-in-five (44%) respondents both nationally and in BC, have the personal view that humans could reduce climate change but that it is unclear at this point whether we will do what is needed. This personal view is followed by the view held by close to one-third (31% nationally and 34% in BC) of respondents who believe that humans could reduce climate change, but that people aren't willing to change their behaviours so we aren't going to.

Educators and parents in BC are more likely than their national counterparts, to believe "humans could reduce climate change but that it is unclear at this point whether we will do what's needed" (61% in BC vs. 53% nationally and 57% in BC vs. 46% nationally, for educators and parents respectively). Educators in BC are significantly less likely to agree that "people aren't willing to change their behaviour" so we wont reduce climate change (12% compared to 32% nationally). Responses from students, and members of the general public are fairly consistent with responses nationally.

Those in MB (57%) are significantly more likely to believe that humans could reduce climate change but that it is unclear whether we will do what is needed than those in QC (40%).

Those in BC (34%), ON (32%), and QC (32%) are significantly more likely to believe than those in MB (19%), that humans could reduce climate change, but that people aren't willing to change their behaviours so we aren't going to.

Would you be willing to change your life to help reduce the effects of climate change?



Respondent Group

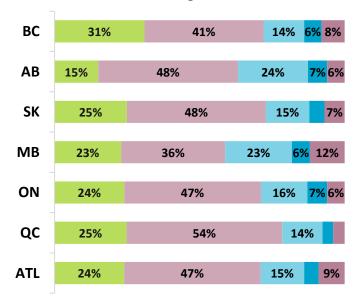


National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170) Responses 5% or less not labelled.

A large majority of respondents both nationally (72%) and in BC (72%) would be willing to change their life either a lot or somewhat to help reduce the effects of climate change. 31% of BC respondents are willing to change their life "a lot" as compared to 24% nationally. Only 6% of respondents nationally and in BC were not at all willing to change their life at school, work, or home.

Students in BC (37%) were more likely to agree that they are willing to change their lives a lot to help reduce the effects of climate change than students nationally (25%), as were members of the general public (31% in BC vs. 23% nationally).

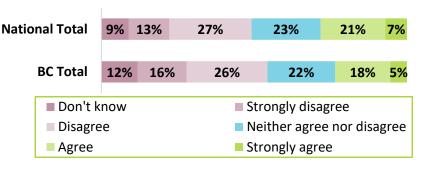
Province/Region



Respondents across Canada were also willing to take "some" action to help reduce the effects of climate change, ranging from 54% in QC to 36% in MB.

Those in BC (31%), were more willing to take "a lot" of action than those in other provinces, especially compared to AB (15%).

New technologies can solve climate change without individuals having to make big changes in their lives



Respondent Group

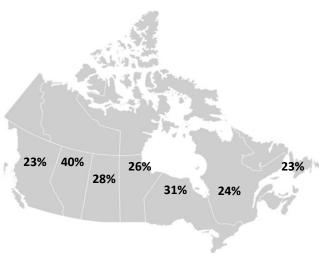


National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170)

Few respondents nationally (28%) and in BC (23%) agree (strongly agree/agree) that new technologies can solve climate change without individuals having to make big changes in their lives.

Educators in BC are significantly more likely to agree that new technologies can solve climate change without individuals having to make big changes in their lives compared to educators nationally (67% in BC vs. 30% nationally). Members of the general public in BC are less likely to agree compared to the national average (19% in BC vs. 28% nationally). Students in BC were the most likely to "strongly agree" with this statement (14%).

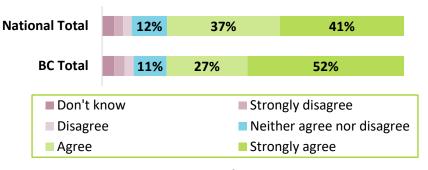
Province/Region - % Agree (Strongly Agree/Agree)



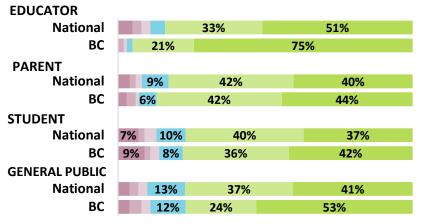
Regionally, respondents differed in their belief that new technologies can solve climate change.

Those living in AB (40%) were significantly more likely to believe in technology as a solution without sacrifices needing to be made, than those in BC (23%), ATL (23%), QC (24%), and MB (26%).

Personal actions are important, but systemic change is required to address climate challenges



Respondent Group



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170) Responses less than 5% not labelled.

Province/Region - % Agree (Strongly Agree/Agree)



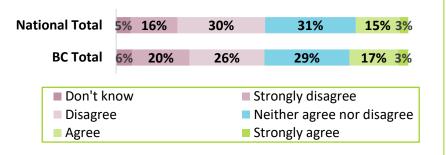
Most respondents feel individual efforts must be supported by a whole-system response to mitigate the effects of rising temperatures. A majority of respondents both nationally (78%) and in BC (79%) agree that while personal actions are important, systemic change is required to address climate challenges.

Educators in BC are significantly more likely than educators nationally to agree that while personal actions are important, systemic change is required to address climate challenges (95% in BC vs. 84% nationally).

Similarly, respondents across the provinces in Canada agreed that systemic change is needed.

Agreement ranged from 82% in SK to 73% in MB with BC falling in the middle at 79%.

The government is doing a good job in their actions to address climate change



Respondent Group

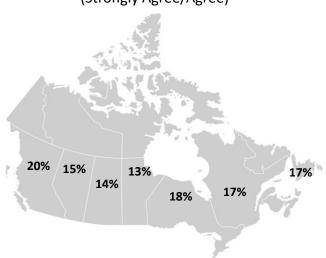
EDUCATOR						
National	7%	15%	36%	36%		14% 3%
ВС	4% 1	.4%	26%		41%	15% 0%
PARENT						
National	7%	16%	30%		31%	13% 3%
ВС	7%	14%	29%		33%	12% 4%
STUDENT						
National	10%	17%	29%		29%	12% 2%
ВС	10%	13%	35%		24%	12% 6%
GENERAL PUBLIC						
National	4%	17%	30%		31%	16% 2%
ВС	5%	21%	25%		28%	17% 3%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170)

British Columbians, like most Canadians, are not satisfied with the actions the government is taking to mitigate the effects of a warming planet. Very few respondents (18% nationally, 20% in BC) agreed/strongly agreed that the government is doing a good job in their actions to address climate change.

Dissatisfaction with the job the government is doing was fairly consistent across respondent groups. Nationally, 51% of educators disagreed that the government is doing a good job. However, in BC, educators were the respondent group least inclined to disagree (40%).

Province/Region - % Agree (Strongly Agree/Agree)



Similarly, there are few respondents across Canada who agree the government is doing a good job. Regional responses range from 13% agreement in MB to 20% in BC.

Please elaborate on what you feel needs to be done to address climate change

Survey respondents were given the opportunity to answer this open-ended question in their own words. Out of the survey population, 317 individuals in BC chose to answer this optional question.

The results were coded and grouped according to themes. The 6 most common themes are shown below, and indicate suggestions for government regulation, lifestyle changes to reduce carbon footprint, and reduced greenhouse emissions, among other suggestions to address climate change.

1

Government legislation/regulations/action 31%

"Change from the top. Government should make laws, encourage development of alternate technologies, tax benefits, punishments of non compliers, partake in international consensus of change. Individuals can't do enough." (Member of the General Public)

3

Reduce greenhouse emissions/pollution 12%

"Significant reduction of greenhouse gasses, reducing beef production and consumption, accelerating EV production, supporting renewable energy companies and hydroelectric projects."

(Member of the General Public)

4

Countries leading by example/Holding other countries accountable 12%

"A slower, systematic approach needs to be developed which includes ALL countries and not just the rich G20 countries." (Educator) 2

Reduce carbon footprint/lifestyle change to become more environmentally friendly 13%

"If every person tries to reduce their footprint in one or two ways it would help significantly." (Member of the General Public)

5

Better collaboration with all parties to become united in dealing with climate change 10%

"We all have to start working together"
(Student)

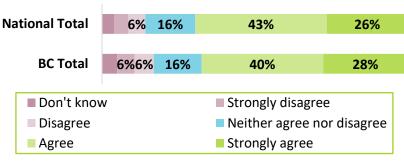
"The whole world needs to work together to become more aware" (Student)

6

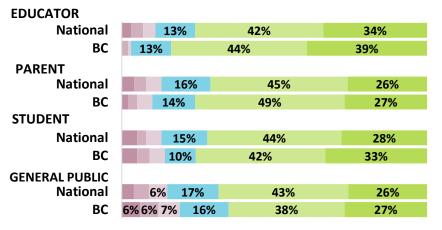
Co-operation from all industries/Companies being corporately responsible 10%

"We all need to make less waste and less emissions. Drive cars less, walk more and put pressure on factories and companies to be more earth friendly-solar electricity, etc." (Parent)

The work and voices of young people can inspire important climate action



Respondent Group



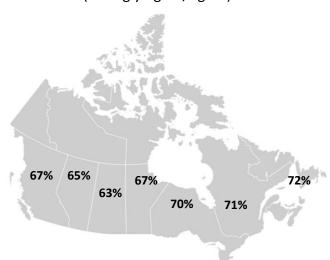
Many Canadians are counting on youth to help win the fight against global warming. The majority (69%) of respondents nationally and in BC (68%) agreed that the work and voices of young people can inspire important climate action.

Educators are most likely to agree that young people can inspire climate action (83% in BC, 76% nationally).

Responses across other respondent groups from BC are consistent with responses nationally.

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n= 514 (Educator=57, Parent=188, Student=166, General Public=170) Responses 5% or less not labelled.

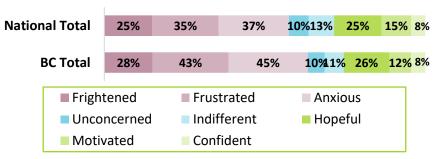
Province/Region - % Agree (Strongly Agree/Agree)



A majority of respondents across various provinces in Canada, including BC, agree with this statement, ranging from 72% of those in ATL to 63% in SK.

When you think about climate change, what main emotions or feelings arise?

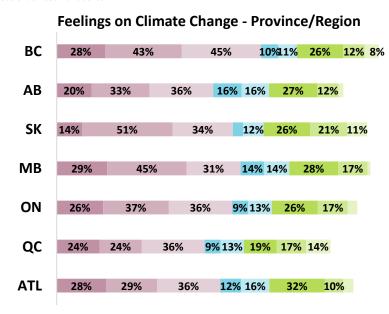
EDUCATOR



Feelings on Climate Change – Respondent Group

National	31%	35%	38%	10%	30%	9%
ВС	38%	39%	30%	21%	38%	6 10%
PARENT						
National	27%	32%	39% <u>1</u> (0% 16%	22% 14	<mark>1%</mark> 9%
ВС	31%	47%	44	% 1	4% 259	% 15%
STUDENT						
National	32%	33%	41%	13% 13%	6 21%	15%
ВС	29%	35%	36%	16% 13%	28%	16%109
GENERAL PUBLIC						
National	24%	35%	36% 109	<mark>%13% 2</mark>	5% 16	%
ВС	27%	44%	47%	11%	10% 25	% 12%
-					-	

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170) Responses 8% or less not labelled.



When BC respondents were asked to think about climate change and the emotions or feelings that arise, anxiety (45%) was the top response, followed by feeling frustrated (43%). Nationally, respondents feel somewhat less anxious (37%), frustrated (35%). On the flip side, one quarter of all BC respondents are also feeling hopeful (26%), similar to the national average (25%). Few respondents in BC and nationally are feeling confident (8%) or unconcerned (10%).

In BC, anxiety is the top emotion felt by the general public (47%) and students (36%). The top emotion felt by BC educators and parents is frustration (39% and 47% respectively). Members of the general public in BC are significantly more likely to indicate feeling anxious than those nationally (47% vs. 36%).

Respondents in BC (45%) are significantly more likely to feel anxious about climate change than those in other provinces, especially MB (31%). SK respondents are most likely to feel frustrated. Residents in BC have the highest combined negative feelings while those in AB and QC have the lowest.

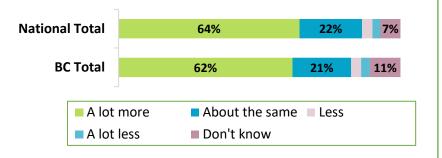
Those in QC (14%) are significantly more likely to feel confident about climate change. 16% of those in AB feel unconcerned, which is significantly more than those in SK (6%), ON (9%), and QC (9%).

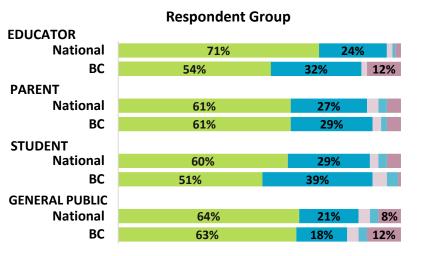


Part 3: Climate Change Education

Part 3 highlights respondent's opinions and perspectives of climate change education in schools.

Should education systems do more, less, or about the same as now to educate young people about climate change?





National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n= 514 (Educator=57, Parent=188, Student=166, General Public=170) Responses 5% or less not labelled.

Many Canadians understand the importance of education in the fight against climate change, as 64% nationally and 62% in BC indicated they think that 'a lot more' should be done to educate young people.

Responses among the general public and parents in BC are consistent with national responses. Around two-thirds of the general public (63% in BC, 64% nationally) and parents (61% in both BC and nationally) strongly believe that the formal education systems should be doing more to educate young people about climate change. Significantly less educators in BC share a similar belief compared to educators nationally (54% vs. 71%).

Province/Region



Across Canada, the majority of respondents think the school system should be doing more to educate about climate change. BC fall in the middle of the regional variation at 62%. AB (58%) had the lowest levels of support for the schools doing more to educate young people about climate change.

To what extent do you agree (or disagree) with the following on teaching climate change in schools?

% Agree (Strongly Agree/Agree) – Total

National Total	BC Total
----------------	----------

Climate change education should aim to change the way people behave.	75%	75%
Climate change education should be a high priority for schooling.	67%	69%
Climate change education should be the role of all teachers.	61%	62%
Only one 'side' of the climate change debate should be taught (it is happening, and humans are the cause).	31%	38%
It is not the role of schools to teach students about climate change.	13%	18%
The topic of climate change is too complex and should not be discussed in younger grades.	15%	13%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170)

Most respondents agree that climate change education should aim to change the way people behave (75% both nationally and in BC).

Very few Canadians (15%) and British Columbians (13%) agreed that the topic of climate change is too complex and should not be discussed in younger grades. Few agree that it is not the role of schools to teach students about climate change (13% nationally and 18% in BC).

Perceptions of teaching climate change in schools varies regionally. BC had the highest agreement that only one side of the climate change debate should be taught (38%), but were least likely, along with QC to agree that climate change is too complex to discuss in younger grades (13%).

% Agree (Strongly Agree/Agree) – **Province/Region**

	ВС	АВ	SK	МВ	ON	QC	ATL
Climate change education should aim to change the way people behave.	75%	67%	65%	68%	76%	78%	71%
Climate change education should be a high priority for schooling.	69%	58%	59%	66%	70%	66%	71%
Climate change education should be the role of all teachers.	62%	49%	52%	63%	65%	62%	57%
Only one 'side' of the climate change debate should be taught (it is happening, and humans are the cause).	38%	26%	26%	28%	31%	34%	23%
The topic of climate change is too complex and should not be discussed in younger grades.	13%	20%	21%	14%	15%	13%	15%
It is not the role of schools to teach students about climate change.	18%	15%	14%	15%	13%	12%	9%

To what extent do you agree (or disagree) with the following on teaching climate change in schools? (continued)

Most respondents in BC and nationally, agree that climate change education should aim to change the way people behave. Significantly more educators nationally (61%) agree climate change education should be the role of all teachers compared to educators in BC (45%), however, parents in BC are more likely to agree (68% in BC vs. 60% nationally).

Parents and members of the general public in BC are more likely than those groups nationally to agree only one 'side' of the climate change debate should be taught (40% vs. 31% and 40% vs. 31%, respectively). Students in BC (25%) are more likely than students nationally (14%) to agree it is not the role of schools to teach students about climate change.

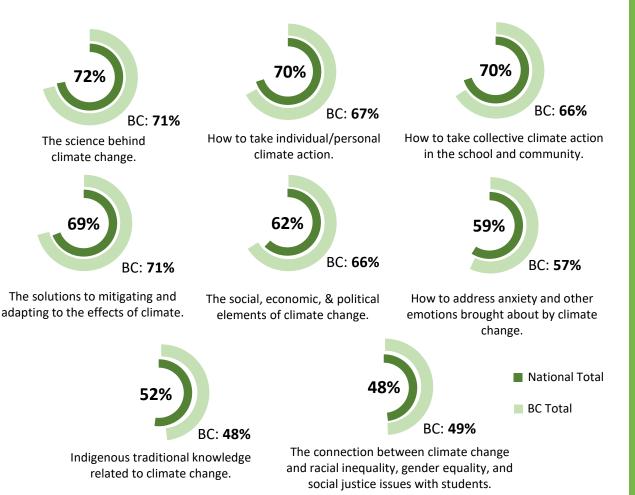
Most respondents both nationally and in BC disagree that the topic of climate change is too complex and should not be discussed in younger grades, and that it is not the role of the school to teach students about climate change.

% Agree	Educ	ator	Parent Student		dent	General Public		
	Nat.	ВС	Nat.	ВС	Nat.	вс	Nat.	вс
Climate change education should aim to change the way people behave.	78%	77%	74%	78%	72%	76%	75%	75%
Climate change education should be a high priority for schooling.	68%	55%	64%	70%	66%	69%	67%	70%
Climate change education should be the role of all teachers.	61%	45%	60%	68%	61%	63%	61%	63%
Only one 'side' of the climate change debate should be taught (it is happening, and humans are the cause).	36%	33%	31%	40%	30%	33%	31%	40%
The topic of climate change is too complex and should not be discussed in younger grades.	12%	14%	17%	16%	16%	17%	15%	12%
It is not the role of schools to teach students about climate change.	10%	8%	15%	15%	14%	25%	14%	19%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170)

To what extent do you feel that the Kindergarten to Grade 12 classes should focus on the following?

% Agree (Somewhat more/A lot more)



Reponses among BC respondents are very similar to the national average. Most respondents agree that Kindergarten to Grade 12 classes should focus on the science behind the climate change (72% nationally, 71% in BC).

Note: Respondent group and provincial data can be viewed on the following page. Parents, students, and the general public share a similar belief. Educators in BC are significantly less likely to agree that kindergarten to grade 12 classes should focus on how to take collective climate action in the school and community compared to educators nationally (53% in BC vs. 73% nationally). However, BC educators are more likely to agree that K-12 classes should focus on the solutions to mitigating or adapting to climate change (84% in BC vs. 73% nationally).

Across Canada, the province that most strongly believed that school should focus on the science of climate change was ON (76%). The regions that were the least likely to believe in a focus on the social, economic, & political elements of climate change were QC (58%) and ATL (56%).

To what extent do you feel that the Kindergarten to Grade 12 classes should focus on the following?

Respondent Group

% Somewhat more/A lot more

	Educ	ators	Pare	ents	Stud	lents	Genera	l Public
	Nat.	ВС	Nat.	ВС	Nat.	ВС	Nat.	вс
The science behind climate change	76%	72%	72%	78%	70%	72%	72%	70%
How to take individual/personal climate action	74%	68%	70%	72%	69%	71%	70%	66%
How to take collective climate action in the school and community	73%	53%	68%	68%	68%	71%	70%	66%
The solutions to mitigating and adapting to the effects of climate	73%	84%	69%	74%	63%	72%	69%	70%
The social, economic, & political elements of climate change	66%	70%	61%	62%	61%	69%	62%	66%
How to address anxiety and other emotions brought about by climate change	62%	67%	58%	59%	57%	55%	59%	56%
Indigenous traditional knowledge related to climate change	51%	45%	50%	46%	48%	46%	52%	49%
The connection between climate change and racial inequality, gender equality, and social justice issues with students	55%	49%	46%	49%	47%	54%	48%	49%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) BC: n=514 (Educator=57, Parent=188, Student=166, General Public=170)

Province/Region

% Somewhat more/A lot more

	вс	АВ	SK	МВ	ON	QC	ATL
The science behind climate change	71%	72%	71%	67%	76%	69%	69%
How to take individual/personal climate action	67%	67%	66%	72%	71%	73%	70%
How to take collective climate action in the school and community	66%	66%	68%	68%	71%	72%	68%
The solutions to mitigating and adapting to the effects of climate	71%	64%	70%	65%	70%	69%	69%
The social, economic, & political elements of climate change	66%	62%	63%	66%	65%	58%	56%
How to address anxiety and other emotions brought about by climate change	57%	57%	60%	55%	60%	57%	60%
Indigenous traditional knowledge related to climate change	48%	46%	51%	52%	57%	48%	52%
The connection between climate change and racial inequality, gender equality, and social justice issues with students	49%	45%	51%	44%	52%	46%	40%

How do you think education systems should further contribute to climate change education?

Survey respondents were given the opportunity to answer this open-ended question in their own words. Out of the survey population, 298 individuals from BC chose to answer this optional question.

The results were coded and grouped according to themes. The 7 most common themes are shown below, and indicate suggestions for an enhanced curriculum, and increased awareness and education.

1

Include with curriculum in school 36%

"Make it a mandatory part of the curriculum. Make it a separate subject like math and science and PE." (Student)

3

Explain scientific evidence of what causes climate change

15%

"All scientific knowledge we currently have regarding climate change should be shared in varying degrees and complexities depending on the age of the student." (Member of the General Public)

6

Empower individuals so they feel they can make a difference 11%

"Ensure that all kids understand what climate change is and empower them to take action locally, nationally and internationally."

(Member of the General Public)

2

Offer solutions to the problem (e.g., reduce your carbon footprint, less pollution) 23%

"Children should be learning about climate change and reducing carbon footprints from a very early age in order to create a generation that cares about global warming" (Member of the General Public)

4

Educate people more/ Increase awareness 13%

"Bring more solutions to this problem and educate us more." (Student) 5

Start teaching students at a young age 12%

"Teaching young people about it so it is engrained from an early age." (Parent)

7

Increase awareness of actions and consequences of actions 10%

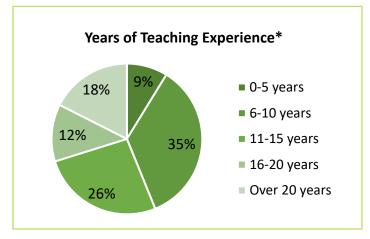
"Inform students more. Get them more involved. Share stats and consequences of climate change." (Student)

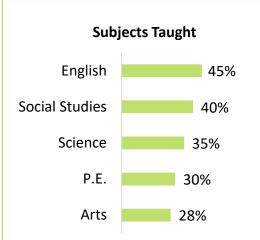


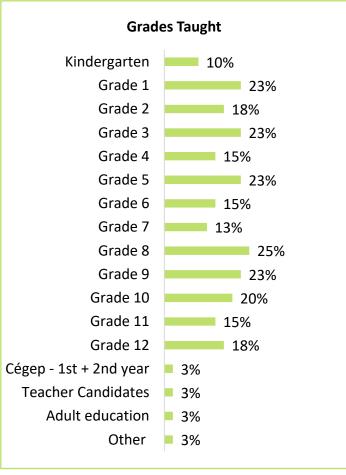
Part 4: Teaching Climate Change

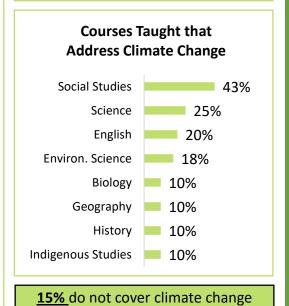
Part 4 highlights the results from the portion of the survey designed exclusively for educators. This section includes their perspectives on the issues that impact the teaching of climate change. 406 Educators responded to the survey with representation from each province across Canada.

British Columbia Educator Demographics





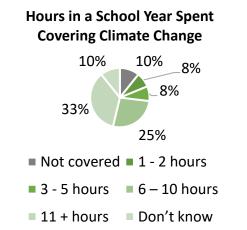




topics in any subjects they teach

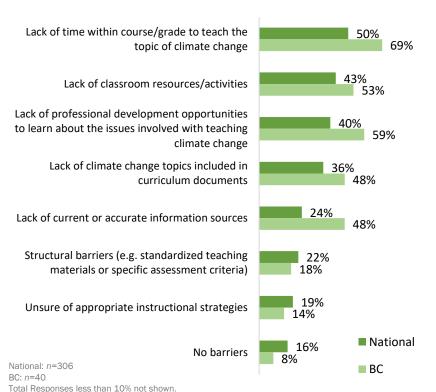
Hours in a School Year Spent

37%* feel students are developmentally ready to learn about the concept of climate change and its impacts starting in <u>Junior</u>
Kindergarten/Kindergarten



What barriers have you experienced when attempting to include climate change education within your classroom?

Barriers when attempting to include climate change education within the classroom



Educators in BC are significantly more likely than educators nationally to indicate that a lack of time within a course/grade to teach the topic of climate change (69% in BC vs. 50% nationally), a lack of professional development opportunities (59% in BC vs. 40% nationally), and a lack of current or accurate information sources (48% in BC vs. 24% nationally) are main barriers when attempting to include climate change education within the classroom. BC educators are much less likely to agree that there are no barriers.

Comparing regional responses, BC was most likely to agree that lack of time (69%), PD (59%), resources (53%) and curriculum or information sources (48%) were barriers.

Province/Region

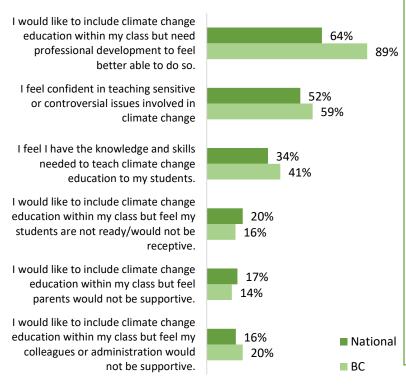
Total responses less than 10% not shown.								
	ВС	AB	ON	QC		ATL*	SK*	MB*
Lack of time within course/grade to teach the topic of climate change	69%	57%	43%	48%		62%	55%	55%
Lack of classroom resources/activities	53%	34%	52%	38%		59%	62%	54%
Lack of professional development opportunities to learn about the issues involved with teaching climate change	59%	42%	48%	28%		56%	45%	49%
Lack of climate change topics included in curriculum documents	48%	42%	44%	28%		60%	59%	51%
Lack of current or accurate information sources	48%	32%	22%	19%		31%	45%	36%
Structural barriers (e.g. standardized teaching materials or specific assessment criteria)	18%	27%	21%	24%		33%	31%	25%
Unsure of appropriate instructional strategies	14%	30%	23%	13%		24%	21%	25%
No barriers	8%	18%	14%	17%		12%	-	10%

National: Educators (BC=40, AB=35, SK=29, MB=175, ON=81, QC=109, ATL=156) Total National Responses less than 10% not shown.

^{*} Indicates open-link data: regional data has been grouped according to the method of sampling in the tables for comparison purposes.

To what extent do you agree/disagree with the following statements?

% Agree (Strongly Agree/Agree)



Educators expressed the need for professional development (64% nationally and significantly more in BC, 89%) to feel comfortable teaching climate change but over half (52% nationally and even more in BC, 59%) did express confidence teaching the controversial issues involved in this subject matter. Nationally, only one-third (34%) agreed that they had the knowledge and skills to teach climate change education to their students. Teachers in BC feel more equipped at 41%.

Few educators view students, parents, or colleagues/ administration as barriers to teaching climate change.

Educators in BC varied in their perceptions of climate change education compared to their counterparts in AB, especially in their need for PD (89% in BC vs. 40% in AB) and confidence in teaching sensitive issues (65% in BC vs. 34% in AB).

National: *n*=306 BC: *n*=40

% Agree - Province/Region

	вс	АВ	ON	QC	ATL*	SK*	МВ*
I would like to include climate change education within my class but need professional development to feel better able to do so.	89%	40%	68%	63%	63%	52%	61%
I feel confident in teaching sensitive or controversial issues involved in climate change	59%	34%	51%	51%	62%	83%	65%
I feel I have the knowledge and skills needed to teach climate change education to my students.	41%	30%	41%	25%	53%	86%	54%
I would like to include climate change education within my class but feel my students are not ready/would not be receptive.	16%	13%	18%	24%	9%	17%	9%
I would like to include climate change education within my class but feel parents would not be supportive.	14%	17%	19%	16%	8%	41%	9%
I would like to include climate change education within my class but feel my colleagues or administration would not be supportive.	20%	7%	18%	15%	8%	24%	6%

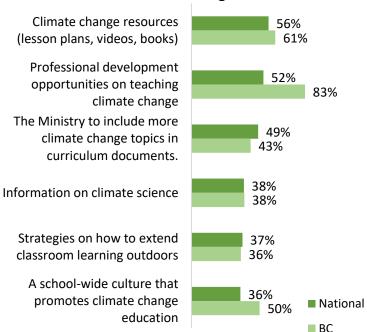
National: Educators (BC=40, AB=35, SK=29, MB=175, ON=81, QC=109, ATL=156)

Indicates open-link data

^{*} Indicates open-link data: regional data has been grouped according to the method of sampling in the tables for comparison purposes.

What support do you need to teach climate change?

Top 6 "Things" Needed to Teach Climate Change



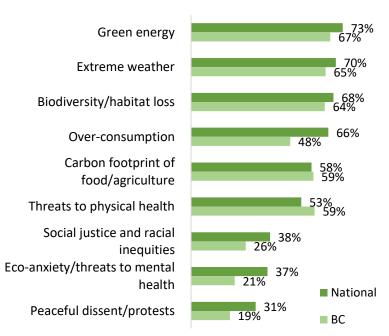
National: n=306 BC: n=40 Top 6 Responses Shown. Some survey topics were included in different questions to confirm findings. Again, educators substantiated that they need resources and professional development opportunities to support them to teach climate change. Educators in BC (83%) are significantly more likely to indicate they need professional development opportunities on teaching climate change than those nationally (52%). Educators in BC were also much more likely than the national average to indicate a need for a school-wide culture that promotes climate change (50% compared to 36% nationally).

Regionally, educators from BC are most likely to express that they need professional development opportunities (83%) and a school wide culture that promotes climate change (50%) compared to other provinces.

	вс	АВ	ON	QC	ATL*	SK*	MB*
Climate change resources (lesson plans, videos, books)	61%	39%	57%	54%	72%	72%	75%
Professional development opportunities on teaching climate change	83%	58%	52%	42%	69%	55%	78%
The Ministry to include more climate change topics in curriculum documents	43%	48%	59%	40%	60%	76%	63%
Information on climate science	38%	39%	42%	34%	60%	48%	57%
Strategies on how to extend classroom learning outdoors	36%	38%	40%	33%	56%	45%	58%
A school-wide culture that promotes climate change education	50%	32%	46%	23%	61%	69%	65%

To what extent do you agree (or disagree) that climate change should be addressed in grades Kindergarten to Grade 3?

% Agree (Strongly Agree/Agree)



Educators were very likely to agree that green energy (73% nationally and 67% in BC) and extreme weather (70% nationally and 65% in BC) should be addressed in Kindergarten to Grade 3.

There was lower agreement for the inclusion of topics like social and racial inequities (38% nationally, 26% in BC), eco-anxiety/threats to mental health (37% nationally, 21% in BC), and peaceful dissent/protests (31% nationally, 19% in BC)

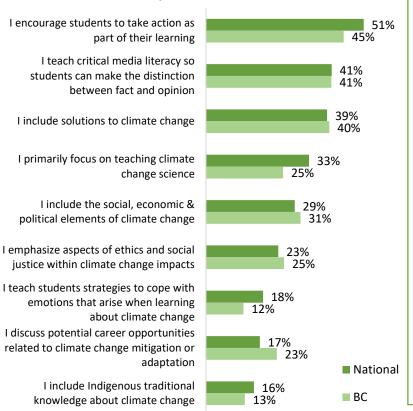
Regionally, BC educators are the least likely among all the other provinces to agree that overconsumption should be addressed in Kindergarten to Grade 3. (48% in BC). BC educators were also the least likely to agree that social justice and racial inequalities should be covered (26% in BC).

National: n=406 BC: n=57

	вс	АВ	ON	QC	ATL*	SK*	МВ*
Green energy	67%	63%	72%	75%	85%	82%	82%
Extreme weather	65%	62%	71%	72%	73%	74%	79%
Biodiversity/habitat loss	64%	70%	66%	63%	84%	85%	85%
Over-consumption	48%	66%	66%	77%	86%	79%	81%
Carbon footprint of food/agriculture	59%	60%	64%	53%	75%	72%	72%
Threats to physical health	59%	38%	54%	53%	48%	51%	61%
Social justice and racial inequities	26%	38%	31%	42%	53%	59%	58%
Eco-anxiety/threats to mental health	21%	19%	36%	43%	42%	46%	49%
Peaceful dissent/protests	19%	21%	28%	34%	39%	28%	44%

When I teach about climate change...

A Great Deal/ A Moderate Amount



Educators both nationally (51%) and in BC (45%) indicate when they teach about climate change, they encourage students to take action as part of their learning. BC educators were more likely than the national average to discuss potential career opportunities related to climate change mitigation or adaptation (23% in BC vs. 17% nationally).

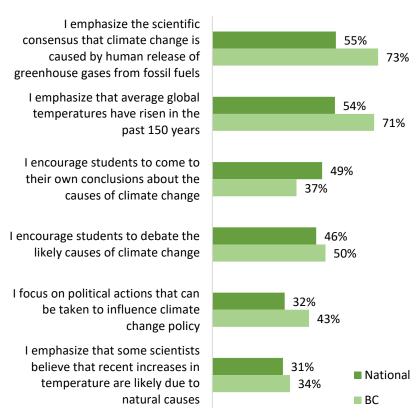
Educators from BC were the least likely to agree that they primarily focus on climate change science (25%), and were also the least likely to include emotional coping strategies to deal with climate change (12%). ON educators were the most likely to adopt many of the listed actions and AB was the least likely. Educators from QC (11%) were the least likely to include Indigenous traditional knowledge about climate change when teaching climate change, as compared to their counterparts in AB (26%) who were the most likely.

National: *n*=306 BC: *n*=40

BC: n=40										
	вс	АВ	ON	QC		ATL*	SK*	MB*		
I encourage students to take action as part of their learning	45%	30%	60%	50%		66%	66%	66%		
I teach critical media literacy so students can make the distinction between fact and opinion	41%	26%	45%	45%		45%	66%	42%		
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 impacts	25%	16%	27%	22%		32%	34%	39%		
I teach students strategies to cope with emotions that arise when learning about climate change	12%	18%	24%	15%		19%	28%	23%		
I discuss potential career opportunities related to climate change mitigation or adaptation	23%	16%	21%	12%		27%	28%	13%		
I include Indigenous traditional knowledge about climate change	13%	26%	20%	11%		19%	48%	29%		

In my classes...

% Agree (Strongly Agree/Agree)



Educators in BC are more likely than educators nationally to agree they emphasize the scientific consensus that climate change is caused by human release of greenhouse gases and fossil fuels (73%in BC vs. 55% nationally), and emphasize that the average global temperatures have risen in the past 150 years (71% in BC vs. 54% nationally).

BC agreement was high compared to most other provinces, specifically when it came to the scientific consensus of the cause of climate change (73%), and emphasizing global temperatures rising (71%). Although agreement was lower across the regions, BC educators were also more likely to agree that they focus on political actions that can be taken (43%). Educators from AB had the lowest agreement on most statements.

National: *n*=306 BC: *n*=40

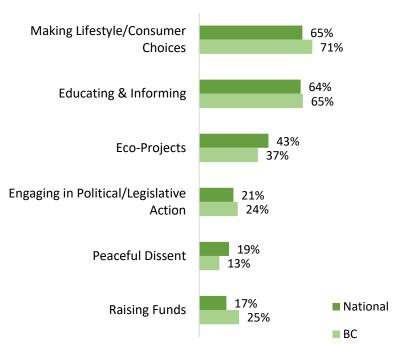
Province/Region

	ВС	АВ	ON	QC	ATL*	SK*	МВ*
I emphasize the scientific consensus that climate change is caused by human release of greenhouse gases from fossil fuels	73%	37%	60%	50%	69%	79%	67%
I emphasize that average global temperatures have risen in the past 150 years	71%	39%	59%	48%	64%	79%	63%
I encourage students to come to their own conclusions about the causes of climate change	37%	39%	53%	46%	39%	34%	41%
I encourage students to debate the likely causes of climate change	50%	34%	44%	48%	33%	45%	43%
I focus on political actions that can be taken to influence climate change policy	43%	16%	34%	32%	42%	52%	40%
I emphasize that some scientists believe that recent increases in temperature are likely due to natural causes	34%	37%	29%	27%	16%	24%	23%

54

How frequently do you engage students in taking the following types of actions to address climate change?

Frequently / Occasionally



Many educators nationally and in BC indicate they frequently/ occasionally engage students in making lifestyle/consumer choices to address climate change (65% nationally and 71% in BC), followed by educating and informing them (64% nationally and 65% in BC). Educators in BC were more likely to engage in raising funds compared to the national average (25% in BC vs. 17% nationally).

Educators in BC (71%) and ON (70%) are the most likely to engage students in making lifestyle/consumer choices. Educators from AB less frequently engage students in all actions that address climate change than those from BC, ON or QC.

National: *n*=306 BC: *n*=40

	ВС	АВ	ON	QC	ATL*	SK*	МВ*
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%

^{*} Indicates open-link data: regional data has been grouped according to the method of sampling in the tables for comparison purposes.



Canadians' Perspectives on Climate Change & Education: 2022
British Columbia Provincial Report

Section 4: Climate Audiences

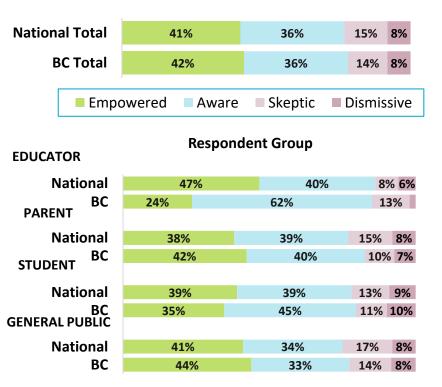
Ladder of Engagement

The group EcoAnalytics has been mapping Canadian public opinion on climate change since 2016. As well, they have been providing additional analysis on specific segmented audiences in order to provide insights for communicators, educators, and policymakers for better targeting and engagement. Within this body of work, EcoAnalytics has put forward a Canadian ladder of engagement, which is a conceptual map to help groups engage audiences with more success (LaChappelle, Mahéo, & Nadeau, 2016).

The four audiences are broadly categorized and paraphrased from the EcoAnalytics report as:

- Dismissive disagree that climate change is happening
- **Sceptic** agree that climate change is happening and do not think it's caused by humans OR, neither agree nor disagree that climate change is happening
- Aware agree that climate change is happening and do think it's caused by humans
 AND indicated that there is nothing that we can do to change it
- Empowered agree that climate change is happening and do think it's caused by humans AND indicated that there are things we can do to change it

Below is a comparison of the BC Ladder of Engagement Results to the National Results:



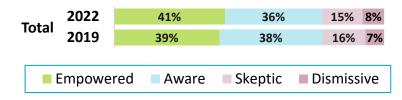
National: n=4,025 (Educator=404, Parent=1,368, Student=1,207, General Public=1,288) BC: n=513 (Educator=57, Parents=187, Student=166, General Public=170

The majority of respondents are either Empowered or Aware, meaning they do agree that climate change is happening and that it is caused by humans.
Responses in BC are consistent with responses nationally.

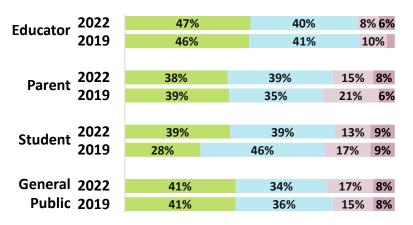
More educators are empowered about climate change nationally than in BC (47% vs. 24%). More educators in BC fall into the Aware category compared to nationally (62% in BC vs. 40% nationally).

^{*}Ten respondents were excluded from reporting as they belonged to both the Dismissive and the Skeptic category, their responses were not consistent with their views towards climate change.

Ladder of Engagement 2022 vs. 2019

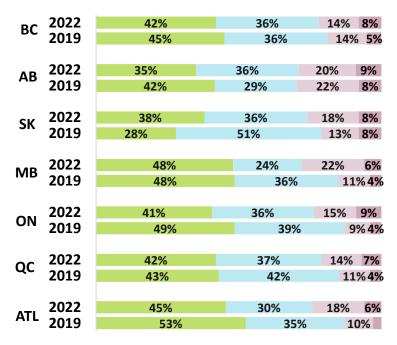


Respondent Group



2022: n=4,025 (Educator=404, Parent=1,368, Student=1,207, General Public=1,288) 2019: n=3,196 (Educator =111, Parents=571, Student=486, General Public=908) Responses less than 4% not labelled.

Province/Region



In three of the four participant groups (educators, parents and general public), there was little change in the ladder of engagement in 2022 vs. 2019, with educators remaining the most empowered (47% vs. 46%) and parents feeling the least empowered (39% vs 38%).

This lack of movement in other groups made the change in the student results much more significant. The percentage of students feeling "empowered" in 2019 was 28%. However, 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.

When the ladder of engagement is applied regionally, most provinces are largely either empowered and aware. In 2022 in some regions (BC, AB, ON, QC, and ATL) there were fewer respondents in the empowered group than in 2019. SK, however, showed significant gains in the empowered group in 2022 vs. 2019 (38% vs. 28%).



Canadians' Perspectives on Climate Change & Education: 2022

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Section 5: Recommendations

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 and seek input from:
 - youth
 - Indigenous educators
 - marginalized communities
- Curriculum expectations should include: scientific consensus that climate change is human caused, the social, economic, and political aspects of climate change, Indigenous knowledge, and social justice issues.
- 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 transformative pedagogies such as inquiry, active learning, and hands-on, experiential learning.
- Teachers must be supported to include solutions to mitigating and adapting to the
 effects of climate change, and promote student action to foster feelings of hope
 and empowerment and ameliorate emotions brought about by climate change.
- 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 urgency of climate change education. They must ensure that climate change education is a central and required component of course offerings in preservice, in-service, and graduate-level teacher education curricula

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, opportunities for mitigation and adaptation, and personal, higher-impact actions.
- Sources of information about climate change need to target different population groups more purposefully and effectively.
- 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 and professional learning for teachers on current national/provincial climate data, information on green jobs, and locally relevant climate change classroom resources.

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.

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



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