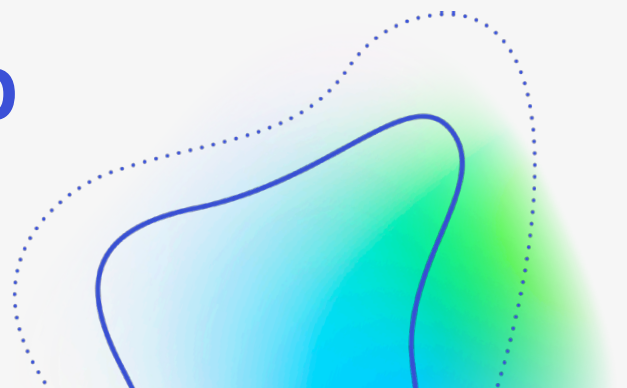




Climate Action Lab

POWERED BY LET'S TALK SCIENCE

Final Report



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Introduction

Around the globe, climate related outcomes are converging and dramatically changing our day-to-day experiences; weather is becoming more violent and unpredictable, we're losing biodiversity at an unprecedented rate, food production is precarious, climate migration is linked to socio-political instability and environmental pollution has become a significant threat to human health. Today's teenagers know this is the world they will lead. We're living at an inflection point when our collective decisions will have tremendous impact; it's imperative to include youth in the discussion, planning and action. Young people must be engaged now to ensure equitable, long-term, positive and sustainable climate action.

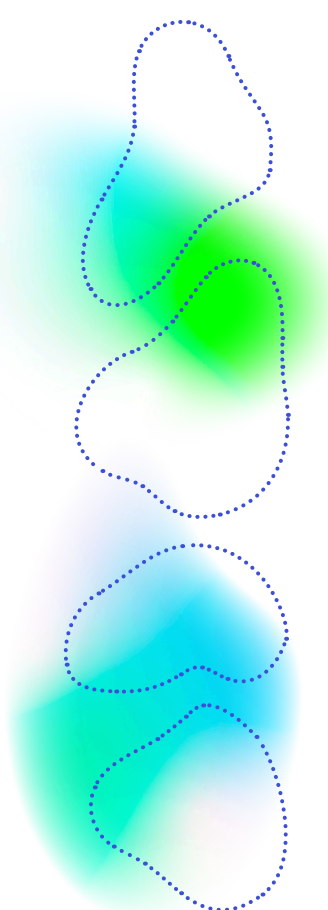
Let's Talk Science is committed to helping youth prepare for future citizenship and career roles, which includes positive climate action. The goals of the Climate Action Lab initiative were to: uncover the barriers that prevent youth from taking climate action, daylight opportunity areas for climate action programming that is relevant for youth, and offer a meaningful experience for youth to collaborate with Let's Talk Science.

Over 400 youth applied to become Climate Action Lab researchers (paid, part-time work for 12 weeks). Our team consisted of 82 student researchers, aged 15-18, who were led by 16 university student coaches on 12 teams representing the Canadian provinces and territories. While we made a concerted effort to recruit students from the North, we were not successful in having representation from Labrador, Nunavut or Northwest Territories. Despite challenges in geographic recruitment, we were delighted that our search for diverse applicants was successful. Our team self-identified as: **30% boy/man, 60% girl/woman, 7% non-binary, 3% gender not listed, 33% LGBTQ+, 49% Black, Indigenous, Person of Colour.**



Opportunity Areas

The Climate Action Lab began with a team of expert qualitative researchers leading secondary research to identify trends in youth engagement and climate action. We identified four promising opportunity areas to explore from a youth perspective.



Many ways of knowing

Focus on weaving Indigenous knowledge, Western Science and lived experience into a cohesive perspective. Unpack how colonialism has shaped our understanding of science and build grounded, integrated ways to sense-make.

Just transition leadership

Focus on leadership and skills training around a just transition; learning to navigate systems, practice change-making, feelings of efficacy and skilling up for a new economy.

Crossing the hope gap

Focus on participating in local climate solutions, build on what's working to inspire hope. Inquiry based learning, applied in the community.

Natural solutions

Focus on connecting with nature through participating in natural climate solutions. Experiential, land based and mentorship based.

Ethnographic Qualitative Research

We used these opportunity areas to create scenarios, which are short stories that invite readers to explore each concept within a youth focused context. The Climate Action Lab high school student researchers used the scenarios to conduct qualitative research with their peers using questions that explored the barriers and opportunities to climate action. Over 12 weeks they conducted 848 interviews with high school students and made 435 personal reflections!

The university student coaches supported their team members to recruit friends and peers, lead the research, make personal reflections, and make sense of the research experience and findings. After each week of fieldwork, the coaches synthesized the findings from their team and the expert qualitative researchers analyzed them¹ to uncover the broader contexts, giving meaning to the youth experience of climate action and engagement.

We also interviewed 12 members of the Climate Action Lab team, using ethnographic open ended interviews to develop a better understanding of the behaviours, motivations and perspectives of youth climate action leaders.²

¹Weekly Synthesis on Recollective

Each week, coaches completed two synthesis activities on our research platform Recollective: synthesis of peer research with peer participants and the personal reflections of researchers. For each of these activities they used a customized study in Recollective to identify key outcomes, identify patterns and pull out important quotes. Team mentors then collected and analyzed the findings in a shared sheet.

²Ethnographic Synthesis

Once the ethnographic interviews were complete, a small team of coaches engaged in pattern identification and theme generation with the interview data on Recollective. Using a shared insight template, they generated a series of insights that included key ideas, interpretation and quotes.

Key Barriers

Ultimately, the most important finding from the Climate Action Lab is that the way climate action is currently presented, can feel to teens as if society is asking them to fix the “end of world” by themselves through self-discipline. **Students want climate action to be a positive experience, one that is social, connected, experiential, nature-based and is aligned with their life goals.**

1 Lack of power

Youth know they don't have the power to make choices that will make a significant difference quickly, they don't feel listened to by adults and don't see adults taking enough action (especially government and industry).

2

Lack of meaningful feedback around impact

Metrics like GHGs and carbon calculators are abstract, and simply reading about the science of climate doesn't give youth any indication that they've made a difference; they want to feel a difference.

3

Denial of pleasure

Often climate action is framed around stopping something like eating meat, buying new clothes, driving cars or traveling. These pleasures are often associated with coming of age and being part of something bigger.

4 Social isolation

Current approaches to climate action are often about individual actions, doing things alone as a teenager can feel lonely and anxiety inducing.

5

Lack of benefit

Teens are navigating so much at this time of their life, when climate action isn't giving them anything but worry, it's easy to ignore.

Insights

The following insights describe findings from five areas; 1) **science learning** 2) **mental health** 3) **different ways of teaching and learning** 4) **youth engagement and outcomes for students** 5) **when, where and who**. They can be considered ‘best practices’ when it comes to designing ways for youth to participate in climate action. Each finding is not prescriptive or exhaustive, rather they indicate preferences identified by youth and can help to shape existing or new youth climate action programs for maximum success.

1. Science learning

Rethinking science as a way to drive youth climate engagement:

- Humanize climate action by making it about helping people for a more tangible experience.
- Create positive climate experiences and engage students by focussing climate learning on its application to real life climate solutions.
- Include Traditional Indigenous Knowledge, and local knowledge as focal points in climate action.
- Engage students in climate learning by offering interdisciplinary opportunities to push past curricular limits.

2. Mental health

Considerations for supporting student mental health and wellness while engaging in climate learning and doing:

- Address mental health indirectly with hopeful content focused on climate solutions.
- Supportive techniques should not be framed in terms of ‘mental health support’ and should offer flexible and private ways to participate.
- Time in nature should be incorporated into a climate action offering as it offers immediate and tangible feelings of calmness and disconnecting from stress.

3. Different ways of teaching and learning

Pedagogical best-practices to foster and develop youth climate action:

- Outdoor education is a panacea when it comes to what teens need to participate in climate action; students describe it as relatable, tangible, hopeful and an experience that can lead to outcomes that are not possible in the classroom.
- Focus on hands-on learning like fieldwork, experiential learning and applying concepts to real life. Green job training, co-ops, internships or apprenticeships will help students make positive connections between climate action today and future possibilities.
- Create opportunities for engaging in the program via different media and multi-sensory experiences, and give time to make sense of the learning in person.
- Curate existing high quality content rather than making it bespoke.
- Incorporate learner-driven approaches and student autonomy into an interdisciplinary program. Include a strong focus on reflection and sense-making as part of learning experiences and tools.

4. Youth engagement and outcomes for students

Head, heart, feet and spirit ingredients of youth climate action:

- Empower students' sense of efficacy and impact by countering negativity with resiliency, and design ways for them to experience climate action as worthwhile, in a way that relates to what they find motivating.
- When youth enter the education system, we encourage them to focus on getting good grades, going to a good post-secondary institution and getting a fulfilling job. Relate climate action to familiar goals they're already working on through familiar incentives.
- Effective climate action program design will include choice models for participation that welcome everyone, but allow passionate students and educators to opt in for more.
- Focus on the present. It's not motivating for students to participate in something that will be good for 'the future'. Help students to see the impacts of climate

change today, on their terms, and how they can immediately participate and perceive their impact in real time.

- Create opportunities for students to develop shared beliefs and practices around climate through positive collective engagement.

5. When, where and who

Logistic needs and social drivers of student climate action:

- Offer a variety of options in terms of timing and location in order to make participation possible for many, and test what works in local communities.
- Ensure effortless participation through seamless logistics (eg. bussing), a program that's open to everyone (at least as a trial), and addresses accessibility needs.
- To drive engagement, leverage students' existing social connections by inviting groups of friends to join together, and in programs, design a choice model for different types of social participation.
- Student engagement and program success is deeply connected to educators with relevant expertise, high emotional intelligence, and who are motivated and engaged.
- Showcase a broad range of human diversity, experiences and inclusion when it comes to programming ensuring everyone feels a sense of belonging
- Make content relatable and show respect to all participants.

Insights Checklist

Use this checklist when designing youth climate action programs or climate change education initiatives to incorporate key findings from the **Climate Action Lab** powered by **Let's Talk Science**.

Science learning

- Frame climate action in terms of helping people, rather than abstractions like habitat or numbers.
- Pair climate learning with real and positive climate solutions.
- Include Traditional Indigenous Knowledge and local knowledge as necessary and expert perspectives.
- Make room for every person's talents by framing climate action as interdisciplinary and encouraging it to transcend curricular (traditional) boundaries.

Mental health

- Address mental health indirectly by building hope through positive solutions.
- Present supportive techniques (like breathwork) in settings students feel offer flexibility and privacy.
- Incorporate time spent in nature as an antidote to stress and anxiety.

Different ways of teaching and learning

- Learning on the land is preferable; if not exclusively outdoors there are ways to connect with nature.
- Learning happens by doing. Examples are fieldwork, experiential, inquiry, apprenticeship etc.
- Make connections with climate action and green jobs.
- Leverage high quality content from many sources and offer multi-sensory experiences.
- Give options and autonomy to learners. Include time for reflection and sense-making.

Youth engagement

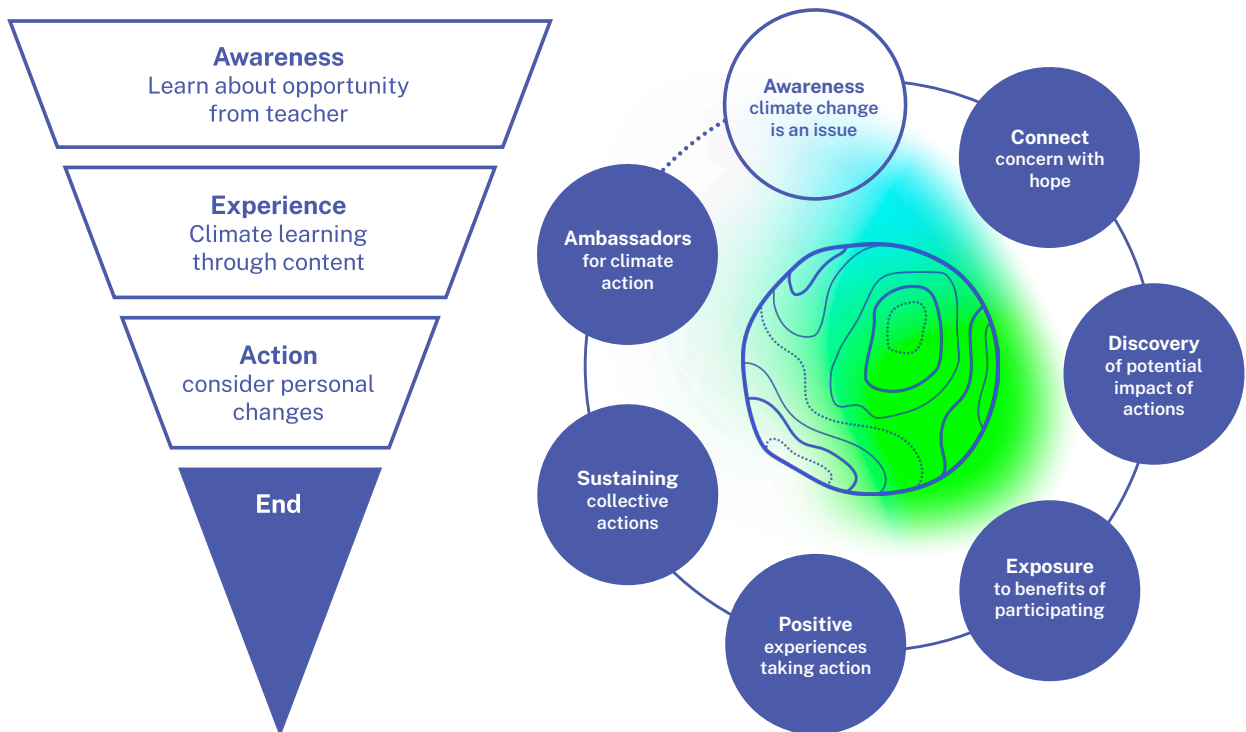
- Empower students by equipping them with leadership skills to make decisions and navigate systems. Invite them to intergenerational decision making tables and listen to their suggestions.
- Provide incentives that are relatable to youth like: getting paid, job experience, recommendation for post-secondary.
- Programs should be for everyone and encourage those who are passionate to join from the start and be part of building the culture together.
- Focus on the present rather than 'the future'. Help students see the impact of their efforts today.
- Encourage teens to work in groups for bigger impact rather than focusing on individual behaviours.

When, where and who

- There are several options in terms of when, where and/or who.
- Logistics are well thought through and seamless for participants.
- Youth are invited to participate with their friends.
- There are different ways to participate based on individual comfort.
- Facilitators have training in motivating students, connecting with them on an emotional level as well as subject matter expertise.
- Content includes diverse representation and showcases respect and inclusion.

Experience Cycle

When applying the insights to youth climate action programs, consider it part of an engagement cycle. Our findings suggest youth need climate action opportunities that build on each other and lead to personal growth, future opportunities, and offer tangible impact with lots of feedback through collective action. Through interviews with youth leaders in climate action, we found a pattern of high performing teens exhibiting sustaining and growing climate actions through this cyclical behaviour, rather than siloed climate action experiences with finite endings (as modeled in the funnel). When developing programs, consider which step you are focusing on and then consider the step before and the step after so that you start to build continuity for the people involved. For example if your program is about helping youth understand what climate change is, the next step is to show them hopeful solutions and create ways for them to participate in hopeful solutions.



Two Different Engagement Models: on the left is a funnel with a finite end to the person's experience and on the right is a cycle that promotes cyclical and deepening engagement over time.

Applying Climate Action Lab Findings

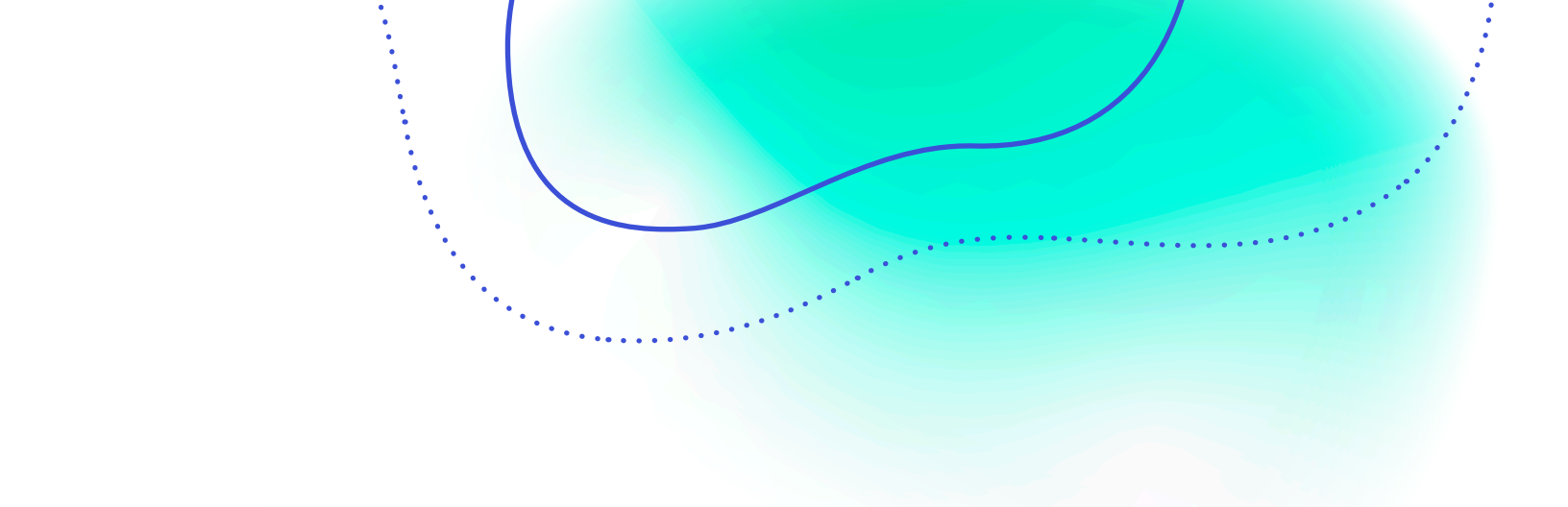
In this section, we offer examples of how Climate Action Lab findings might be applied to common climate action programming approaches to include youth perspectives.

Common approach

Approach applying Climate Action Lab findings

Project grants for youth to lead their own climate initiative.

- Offer leadership training to develop skills for working as a group and navigating system change as a precursor to the grant
- Create ways to leverage the range of skills and interests of the whole group beyond a single discipline
- Connect climate action with diversity and inclusion initiatives
- Prioritize building on successful climate solutions found within local communities, preferably those where students can get involved, take a tour, or meet someone who works there
- Incentivize participation with volunteer hours or reference letters
- Take time to celebrate achievements with several generations (invite families of students, elders in the community and younger kids too)!



Reading about climate change through web pages, textbooks and classroom assignments.

- Bring in passionate members of the community who work in climate action to discuss their work
- Create an awards show in the hallway to showcase and celebrate positive examples of climate solutions
- Go outside to see evidence of climate change on the land
- Explore science and Traditional Indigenous Knowledge perspectives in combination
- Incorporate journaling with personal reflection into assignments

Learning to use a carbon calculator to encourage individual behaviour change.

- Use the calculator to calculate community actions like electrifying the school board's bus fleet rather than individual actions
- Use the calculator to show how fast positive actions can bring tangible benefits like regenerative land use practices turning once polluted bodies of water into clean drinking water
- Combine the calculator with skill development to promote actions with positive impact, like learning to cook a plant-based meal
- Go outside and practice measuring how trees capture carbon and the human activities they offset in their lifecycle
- Translate GHGs into human scale (eg. how many GHGs in the atmosphere cause childhood asthma in your neighbourhood)

Conclusion

Let's Talk Science is pleased to share results from the Climate Action Lab initiative. A project team of 150 people made this possible through a collective effort to create ways into climate action that make sense for youth. We hope the recommendations are useful in creating/updating youth climate action initiatives to include the needs of diverse youth in Canada. Please share this report widely! Let us know if you have questions and/or how it was useful in your endeavours.

Thanks for reading!

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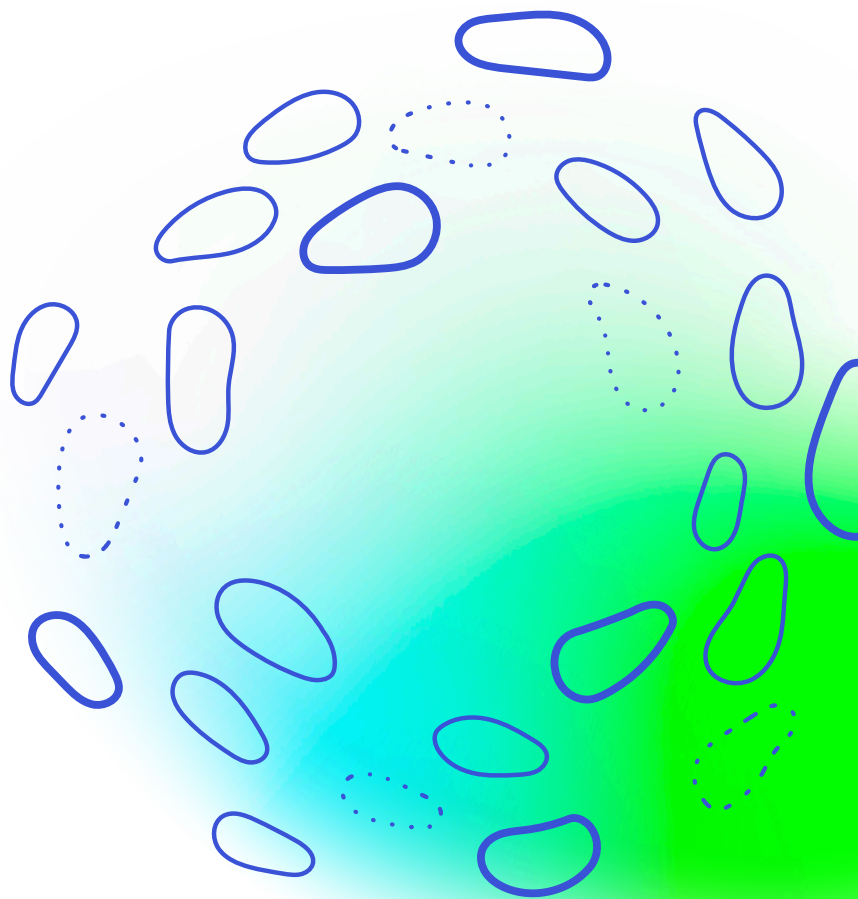
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