

**LEARNING FOR A
SUSTAINABLE
FUTURE**

INQUIRY CHAPTER EIGHT

Ethical Dimensions for Children, Youth and Liveable Futures



EMPOWERING LEARNERS IN A WARMING WORLD

A Climate Change Inquiry Guide for 7-12 Educators

Contributors: Jennifer Stevens and Dr. Karen Acton



with support from



8. Ethical Dimensions for children, youth, and liveable futures

Globally, children and youth (under 18 years of age) make up 29% of the world's population. In an [open letter](#) to The Guardian, the global organizing committee of the Climate Strike movement, wrote: "Our generation grew up with the climate crisis and we will have to deal with it for the rest of our lives. Despite that fact, most of us are not included in the local and global decision-making process. We are the voiceless future of humanity."

[According to Field](#), "If, as educators, we are to provide educational learning spaces that encourage young people to address issues in their local communities in meaningful and relevant ways, then we need to encourage them to use all the information, tools, and resources they have at their fingertips. It is through action that hopeful futures are created." Looking into future decision making, we need to allow students to be creative and authentically inspired to create change, be active citizens, and be critical thinkers and solutions-oriented to address problems in their communities.

Climate change will be impacting future generations and there will be difficult decisions ahead in terms of balancing mitigation and adaptation and for whom. Canada has a low vulnerability score and a high readiness to adapt to climate impacts. While adaptation challenges still exist for Canada, as a country we are well-positioned: Canada is the 6th least vulnerable country and the 18th most ready country according to the [Notre Dame Global Adaptation Initiative \(2019\)](#). Other countries will look to Canada for financial support due to the natural disasters related to climate change, climate migrants will see Canada as a destination, and Canadian resources, such as freshwater, will become increasingly significant. There is no straight answer on how to deal with these issues, but we can 1) discuss dimensions of ethics that pertain to foundational societal values of equity, diversity, and inclusion with students; and 2) envision hopeful futures that have transformed disparity.

This inquiry explores how children and young people are growing up with an understanding of the climate crisis, how it may affect their future, and what avenues they have for engaging in change making processes.



Photo by: Kompas/Hendra A. Setyawan

Before you Begin: Background Information for Educators

The ethical dimensions of climate change challenge the concept of fairness in every sense of the word. It is the people most vulnerable and least responsible that may be the ones to suffer the most serious impacts of climate change. In essence, “most of the victims are poorly placed to hold us to account — being very poor, not yet born, or nonhuman” ([Yale 360](#)). The history of environmental racism is well-evidenced with low socio-economic or racialized peoples experiencing a disproportionate burden of exposure to negative environmental impacts. Climate impacts align with this history of environmental injustice. Climate change is not a national problem but a global one; the air we breathe is a product of global emissions and the warming we feel is related to the actions and reactions of each country around the world. As the impacts of climate change worsen, the [ethical challenges](#) become a closer and more daunting reality.

Vulnerable Countries

Many developing countries are located in climate-sensitive regions around the world, and often these developing countries don't have the resources to prevent massive damage or to properly adapt to the changing climate. There is a stronger economic penalty for countries in warmer climates as their already-high temperatures make them more sensitive to any increases in heat. Coastal regions and small islands are especially vulnerable to flooding as sea levels rise and serious storms increase in intensity. The number of people that are at risk of flooding each year could increase exponentially and force inwards migration ([Islam and Winkel](#)).

Future Generations

The problems that we are creating now have the potential to seriously impact the quality of life for future generations. [Yale Environment 360](#) asks the question: “Why should people in the future pay to clean up our mess?” The carbon emissions that we are creating now could remain in the atmosphere for up to 100 years. All of the predicted negative environmental effects are worsening over time, more seriously affecting future generations. Some of the long-term effects include: increasing temperatures, precipitation pattern changes, more droughts and heat waves, more intense hurricanes and tropical storms, and rising sea levels among many others. ([IPCC](#))

Non-human species

Globally warming temperatures are having a serious negative effect on many different species, putting species at risk for endangerment or extinction. For instance, climate change is affecting natural migration patterns of animals and forcing many animals to search for cooler temperatures. It is increasing the prevalence of pests that have a detrimental effect on the health of many plants and trees, taking away crucial food supplies for various species. Humans are also destroying the habitats of plants and animals for agriculture and timber. Rising Arctic sea temperature is causing problems for many of the wildlife that live there. Loss of ice, in many cases, means loss of stability for breeding, feeding, resting, hunting etc. These examples only demonstrate a very small number of the detrimental effects on plants and animals, whose ability to survive is being compromised.

Addressing Difficult Discussions

The problem should not be recognizing whether or not we need to take action; it should be how. The scientific consensus that climate change is primarily caused by the human activity of burning fossil fuels is resounding and the message is clear. However, there remain large gaps in understanding and a post-truth narrative continues to inform policy makers and media coverage, and thus streams into general societal understanding. A problem exists with how to address these kinds of narratives with students. *If these viewpoints or conversations arise in the classroom, how can teachers acknowledge that a “controversy” exists and be careful not to silence any voices or conversations, while still staying true to the science and avoiding opportunities for skepticism or doubt?*

The sensitivity of climate change for children and teens should be a consideration as educators navigate through the various facets of this subject. Specifically, as ethical dimensions of climate change unfold in a classroom, it is important to acknowledge, respond, and reflect on students’ reaction to this information. To make the learning meaningful and productive, how can the conversation move from information sharing and knowledge building towards acting?

A powerful discussion tool that could be a useful framework for addressing climate change in each dimension is called deliberative dialogue. [Deliberative Dialogue](#) aims to find the most informed and promising course of action for a certain problem at hand, or an “intent to resolve.”

Exploring these ethical dimensions invites students to ponder some of the most difficult questions and look deeper into their own personal (as well as society’s) ethical and moral standards in relation to climate change.



A. Provocations: Ethical Dimensions

To hook student interest, choose one or more of the provocation ideas to initiate engagement.

Idea 1) Quotes to Reflect On

Quotations can provoke deep thought. For this hook activity, put a number of climate change quotations on tables throughout the room. Have students wander and read them and then choose the one that resonates with them the most. Ask them to form pairs at their chosen tables and allow students to explain their thinking to a fellow classmate. Then have students rotate to a new partner at a different table and each explains their choice of quote.

A few suggested quotes are listed below, but an internet search will reveal many others to suit your needs.

- 1. We have the choice to use the gift of our life to make the world a better place – or not bother.** – Jane Goodall
- 2. Going back to a simpler life is not a step backward.** – Yvon Chouinard
- 3. The future will be green, or not at all.** – Jonathon Porritt
- 4. We are living on this planet as if we had another one to go to.** – Terri Swearingen
- 5. If it can't be reduced, repaired, rebuilt, refurbished, refinished, resold, recycled or composted, then it should be restricted, redesigned or removed from production.** – Peter Seeger
- 6. I'm often asked whether I believe in global warming. I now just reply with the question: Do you believe in gravity?** – Neil deGrasse Tyson
- 7. To do good, you actually have to do something.** – Yvon Chouinard
- 8. Everyone thinks of changing the world, but no one thinks of changing himself.** – Leo Tolstoy
- 9. There is no such thing as 'away'. When we throw anything away it must go somewhere.** – Annie Leonard
- 10. As consumers we have so much power to change the world by just being careful in what we buy."** – Emma Watson

Idea 2) Videos

[Climate Change: Take Action for Children Now](#) (UNICEF Canada): 2:21 minutes

This is the message from African youth who participated in UNICEF's digital mapping project, (documents the impact climate change is having on their communities).

[How we children save the world](#) [Plant for the Planet]: 5:21 minutes

The story behind Plant for the Planet - a youth perspective on how children can change the world and make a real impact in the climate crisis.

[How the climate strike travelled around the world](#) [Guardian] 2:15 minutes

A video showing the millions of people that joined in walking out of school/work to protest against the climate emergency and call people to action.

[How to feed the world in 2050](#) [Commission on Sustainable Agriculture and Climate Change] 6:00 minutes

This video highlights that to achieve food security in a changing climate, the global community must operate within three limits: the quantity of food that can be produced under a given climate, the quantity needed by a growing and changing population, and the effect of food production on the climate.

Idea 3) Articles

[Climate Change Reinforces Inequalities, even in developed countries](#) (Deutsche Welle News)

“Climate change exacerbates inequalities, not only in poor, developing countries, but also in industrialized, wealthy ones. The poor should be given special importance when planning, experts say.”

[Canadian kids sue over climate legislation](#) [Nature]

Lawsuit alleges that the federal government has violated citizens' rights by promoting and enabling fossil-fuel development, filed by Canadian youth on October 25, 2019.



B. Question Generation

Using a topic that was generated from one of the above provocations, have students generate their own higher order questions using a [Q-chart](#). This question creation chart provides students with a framework for developing a range of personally meaningful questions, which can include both close-ended factual questions and open-ended, divergent questions. Questions of different levels of complexity can be generated using different quadrants of the chart. For a downloadable pdf version of the chart click [here](#).

Higher-Order Questioning with Q-Charts

Both students and teachers can use this helpful tool to generate questions that range from factual to higher-level synthesis, application, and evaluation questions.

Question stems increase in complexity as you move from the top-left to the bottom-right of the grid.

	Is Are Was (Present)	Did Do Does (Past)	Can (Possibility)	Could Should (Probability)	Will Would (Predictability)	Might (Imagination)
What (Event)						
Where When (Situation)	Remembering & Understanding Lowest Order of Thinking Skills (LOTS)			Understanding & Applying		
Which (Choice)						
Who (Person)						
How (Means)	Applying & Analyzing			Evaluating & Creating Highest Order of Thinking Skills (HOTS)		
Why (Reason)						

IDRA 2017

Chart From: <http://www.idra.org/wp-content/uploads/2017/08/Q-Chart-and-New-Blooms-Quadrants.pdf>

If you prefer to use pre-generated questions, here are some sample questions on the ethical dimension of climate change:

- What role do you see for developed countries like Canada, in mitigating climate effects in countries more harshly impacted, more vulnerable to climate impacts, and less responsible?
- What are ways to empower youth to take action and have their voices heard on the climate change mitigation and adaptation strategies? Why is this so important?
- In the context of Climate Change effects, dissect the quote: “Most of the victims are poorly placed to hold us to account — being very poor, not yet born, or nonhuman.”
 - Who could “us” represent in this context?
 - What might “being held to account” look like?
 - Research: Why will these specific groups (“very poor, not yet born, or nonhuman”) feel the most severe effects?
- Whose job is it to take responsibility?

- For all the negativity surrounding the climate emergency, there are millions of people, and youth worldwide doing incredible things to make a difference. How can these actions be harnessed into wider global action? How can the momentum from climate crusaders continue to impact wider, multi-level change and action?
- How can your class tell the story of how your community has responded to climate impacts, policy, action, or advocacy?



C. Knowledge Building

Use one or more of the following suggestions to help students build knowledge on the ethical dimensions for children, youth and others with regards to the impacts of climate change.

- Configure the class into a circular seating formation and facilitate a [Knowledge Building Circle](#). The sample questions in “Question Generation” can be asked as springboards into discussions of ethics, in terms of equity, diversity, and inclusion.
- Invite a [local community expert](#) to learn more about ethics and climate change.

Places to look for a local community expert:

- Environmental non-profit
- Local social service agencies
- Lawyer
- Equity Officer
- Human Rights Officer

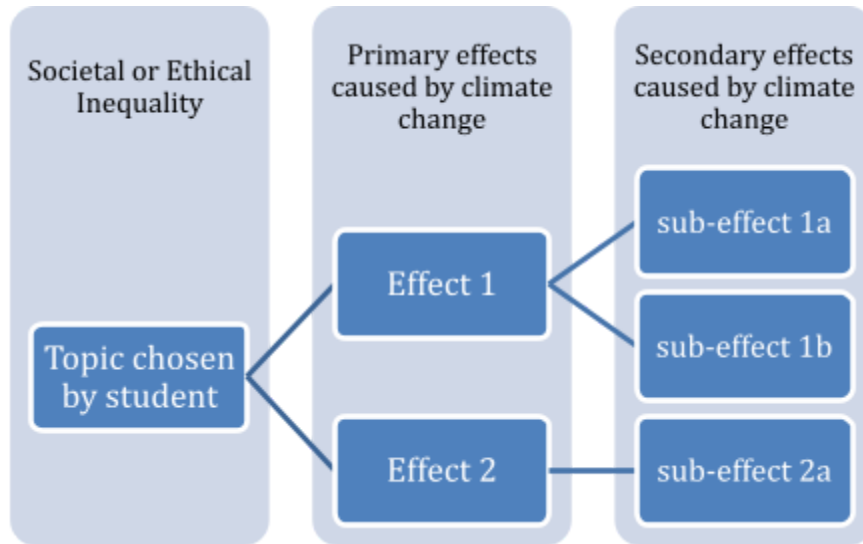


D. Determining Understanding

Ask students to choose two existing societal or ethical inequalities that are important to them, that they think are being exacerbated by climate change and why. Ask them to write down a short explanation of the relationship. If you wish, you could also use a [Cause and Effect](#) graphic organizer to modify the activity for some or all students. Have them go deeper by seeing if they can identify secondary effects as well.

Students can hand these papers in at the end of class for you to review and understand the diverse perspectives and assess student understanding. As a follow the next day, student work could be sorted into categories (social, economic, cultural) and used to group ideas or focus a knowledge building circle.

Sample Cause and Effect chart – how climate change exacerbates inequality



E. Pursuing Learning: Ethical Impacts of Climate Change

Students may choose to take their own avenue to continue their exploration of ethics & climate change. Below we have included several focused activities for students to connect to global issues and explore the global and ethical impact of climate change on children and youth.

Activity 1: Climate Change Connections

Summarized from Climate Change Children and Youth: Local Connections to Global Issues (UNICEF)

The objective of this activity is to ask students to consider how climate change may intensify some of the many issues facing children around the world today. Included in this resource are three testimonials by Climate Ambassadors in different countries that the students are invited to read and think deeply about in relation to climate change. Ultimately, students should start thinking about climate change and children's rights as interconnected issues.

Handouts and additional resources are included.

Access the full Climate Change Children and Youth guide [here](#). Refer to this activity on page 19-21.

Activity 2: Climate Change and Child's Rights

Summarized from Climate Change Children and Youth: Local Connections to Global Issues (UNICEF)

This activity asks students to familiarize themselves with the Convention on the Rights of the Child and identify which rights are connected to the effects of climate change. In other words, how do the effects of climate change impact the articles such as a child's right to free education, right to health and health care, respect for the opinions of a child, and many more?

Encourage students to think outside the box, and acknowledge the significant loss of rights for children, especially in many other countries around the world.

Access the full Climate Change Children and Youth guide [here](#). Refer to this activity on page 22-23.



F. Consolidation

[U-Shaped Debate](#)

This activity is called a [u-shape debate](#) and it encourages students to see the merits of all sides of a debate and to think of positions along a continuum rather than binary options of “for” and “against.” It differs from a traditional debate where there are winners and losers and focuses on developing a position based on facts and different points of view and allowing for students to learn to shift their position and to reflect on the reasons that their thinking shifted. The Critical Thinking Consortium explains: “The goal is to encourage students to endorse positions provisionally while listening to others in an attempt to figure out the most defensible personal stance along a continuum of possibilities. Rather than trying to convince others, students explain why the position they are sitting or standing in is the most defensible one for them. There is no need to reach consensus on the issue.”

A U-Shaped Debate could be used as an instructional strategy for all of the different thematic inquiries in this guide. For this inquiry on ethics and children and young people's futures, here are some sample debate questions:

- What are the most effective ways for young people to participate in climate action?
- What should the global ceiling for emissions or temperature change be? Who should make this decision? And how should this decision be made?
- How should decision-makers balance short-term needs of society versus long-term insurance of a stable climate?
- What role do you see developed countries like Canada having in mitigating climate effects in countries more harshly impacted, more vulnerable to climate impacts, and less responsible?

Preparing for the U-shaped debate will require some class brainstorming on some of the positions and the ends of the continuum for the focus question. Students should also have the opportunity to do some independent research.

Facilitating the U-shaped debate:

- Ask students with polar views (i.e., either strongly agreeing or strongly disagreeing) to position themselves at the ends

- Ask students with mixed opinions to position themselves at appropriate spots along the rounded part.
- Ask students at each tip of the U to state their position and offer a few reasons only
- If there is an imbalance, as a teacher, position yourself on the weaker side to allow for discussion.
- Alternate from side to side, as students from all parts of the U offer their views.
- The most important take-away is to encourage students to physically move along the spectrum. When they do move, to indicate shifting their opinion, ask students if they feel like sharing what caused them to change their mind.

Full access to a U-Shaped Discussion and corresponding handouts (student reflection, self-assessment and teacher assessment) can be found [here](#).

Mental Health Check Activity: Being a Transformational Climate Leader

Climate Therapy Alliance - Pacific Northwest. [Emotional Resilience Toolkit for Climate Work](#) (Version 1.0). September 20, 2019.

After working through some of the big questions presented in this inquiry, we recommend allowing some time for students to point their focus inward and move their thinking towards personal agency and action.

Start by reading the following: Buckminster Fuller asked, *“If the success or failure of this planet and of human beings depended on how I am and what I do, how would I be? What would I do?”*

One of the qualities of being a transformational leader is: *“You stand for a sustainable, just and fulfilling future.”* Can you imagine three specific ways this Idea could be put into action in your school or personal life? Take a moment to write about it now.

Read the following questions and allow students some time to reflect.

- What symbol can you use as a reminder to reconnect you to this vision?
- What could support you in moving toward that vision? What barriers exist?
- Is there a step you are willing to commit to right now that would begin or enhance your movement towards this future?

Assessment Idea



Teachers will assess learning at different points throughout the inquiry using multiple methods. The following assessment provides an alternative evaluation method to standard quizzes and tests, that can be used after consolidation or at any point in the lesson to check for understanding.

< I Care Why? strategy

This activity suits this inquiry on the ethical dimensions of climate change. Pass out index cards or half a sheet of paper to encourage succinctness and so that students do not feel overwhelmed by a

long assignment. Ask students to choose one key learning from the inquiry that resonated with them personally and explain the relevance of the concept to their life or how they might use it.



G. Take Action:

Allowing time for students to take action is an essential part of the learning process on climate change, as it empowers students and eases their eco anxiety.

Ideas for Taking Action:

- Develop a campaign around your exploration of the most effective ways for children and young people to take climate action.
- Consider the social inequalities associated with climate change that you have explored throughout this inquiry. Are there populations in your community that may be feeling the effects of climate change more harshly than others?
- Raise funds to support an organization focused on climate justice close to your community or far away.

Action Project Examples

- Bayridge Secondary School - Making a Difference (2013)
 - Grade 12 youth leaders at this high school researched and presented to their community about the negative effects of plastic water bottles (which never completely break down and will pollute our land and oceans for centuries). By educating and inspiring other (younger) students at their high school, students are considering the active steps that themselves, and their entire community can take to protect future generations. [See their project here.](#)
- Wolseley School - Help the Homeless (2015)
 - Some of the people who will be most impacted by climate change are those who are not able to afford to adapt and lack resources and support. This school held a clothing and food drive that donated these items to local organizations who partnered with homeless citizens and those less fortunate. [See their project here.](#)
- Milk Bag Sleeping Mats - Bowmanville High School (2019)
 - On a local level, this project is upcycling materials to do something positive for a population that needs support. Students encouraged members of their community to donate used milk bags to the school to create sleeping mats for the local homeless population. [See their project here.](#)