PART IV
Climate change in our words and photos

Suggested classes: English Language Arts, Geography, Science, Visual Arts

Length of time: Three to four blocks of 50-70 minutes

Objective
In this lesson, students will:

- Curate and create content for a class-led climate change exhibition
- Collectively decide on a common guiding question, then build a series of photos or artworks
- Connect to local community and climate change issues using their creations and captions
- Communicate work during an event/opening to other classrooms, the school, or others in the community

Materials

- Cameras (phone or digital)
- Art supplies (optional)
- Paper for photo captions
- Computer access (optional)
- Pens and pencils
- Sample interpretive plan
- Exhibition evaluation rubric (optional)

Evaluation

- Development of art/photo development, along with caption editing, researching, and revising (Formative)
- Art/photo submission and accompanying captions (Summative)

OPENING ACTIVITY: COMMUNITY AND CLIMATE – WHY CARE?

Begin today's class with a discussion about the community connections to climate change topics presented last class. After researching and thinking of some personal actions for climate change adaptation and mitigation, ask your students how they see this topic connecting to their own community.

You may wish to have your students try to discuss one climate story and community connections in pairs, and then come together as a class to continue brainstorming and share ideas. Note the conversations on the board.

Ask students to begin by discussing any climate actions they suggested from their research presentations; then try to broaden the discussion to connect to community issues.

The goal of this conversation is to connect a series of impacts that climate change is having across Canada and make a local connection to it. For example, while your community may not have to worry about building a highway over permafrost, urban planners everywhere have to think about how floods and storms will affect transportation routes and infrastructure. There is also a discussion to be had about the impacts of shorter and less cold winters affecting recreation and transportation, in both positive and negative ways. Challenge your students to think about what are the bigger stories in these topics.

After your discussion, you may want to display the chart of Community and climate questions (provided below). You may want to familiarize yourself with potential links here to help prompt groups that may be struggling to make links to the community.

Community and climate questions

ELECTRIC VEHICLES	COOL ROOFS
Are there any electric vehicle charging stations near our school? In our community? Is the electricity we would need for one in our community coming from a renewable or non-renewable energy source? Are there any other benefits or rebates to purchasing one where we live? Does our local climate affect how people feel about driving an electric vehicle?	Do we have any of these in our community? What do they look like? Could our school and community spaces install one? How would it help the environment as well as insulating the building? What kinds of plants would work best for a cool roof in our community?
HEAVY-DUTY AERODYNAMICS	**URBAN FORESTS**
How do goods get to our community now? By road? Rail? Air? What goods and services do we send out to other places? How are these different modes of transportation becoming more efficient? What percentage of our local energy is used in transportation?	How much green space does our community have compared to built-up concrete and asphalt? Can we explore this further on Google Maps or by asking our local government? Are there laws or goals to have a certain percentage of green space where we live? How much green space do we have on our school grounds and in the area?

TOP PREDATORS ADAPT

What kinds of animals move through our community? Are there any we notice arriving earlier, staying later, or who are becoming more uncommon or common? How do you think they are adapting to, and being influenced by, climate change?

WHAT'S THE BEEF?

What kinds of food do we eat (at home and at school) that consume more energy and produce more greenhouse gas emissions than others? If we had a 100-mile diet for our community, what would we eat? Could we do it? What are some ways we can eat meat while being conscious of our carbon footprint?

WILDLAND FIRE: FRIEND AND FOE

How at risk is our community to local wildfires, or the effects of fires far away (i.e. smoke)? How does our community use prescribed burns (planned fires), and where? What plants do we have around us that are influenced by extreme heat and cold that fires and other climate change weather impacts might stress/thrive in? Are there other insects or bugs that will affect us with climate change?

ALL-SEASON ARCTIC HIGHWAY

How are our community transportation arteries being affected by a changing climate? Does our community have any risk of flooding? How could shorter—and less cold—winters affect our daily work and recreation activities?

SPREADING TICK HABITAT

As tick populations migrate, will they impact our community? How does our location fare for ticks? In what months are they most active? What should we do to prevent ticks and Lyme disease in our activities? What happens if you get a tick, and are the impacts always the same?

PREPARING FOR CLIMATE-DRIVEN HEALTH IMPACTS

Where do we get our water from? Where does our waste go? Do both of these processes involve the same body of water (e.g. river, lake)? Where does water go down a sewer vs. a storm drain? What diseases in these systems will increase with a warming climate? How does our sanitation system work to prevent this?

MAKING A CLIMATE CHANGE EXHIBITION

Following a brainstorm on community connections, introduce the final project: your students will be creating their own photo or art exhibition on climate change and/or the environment. They will work together as a class; first, to determine a guiding question and key messages for the exhibition, then to create and curate a photo or art exhibition to be shared with others.

This project can take a few paths depending on the resources you have available. You might ask students to:

- Go out in the community—in groups or individually—to gather different photos or other materials they think would help tell a story (graphs, posters, brochures, etc.), produced by them or by others
- Create artwork instead of taking photos, in a medium determined by you or the students, potentially using environmentally friendly and/or recycled materials

- Use online sources to search for photos or images relevant to the theme, citing the owner to the best of their ability and crediting them
- Mix all of the above

Regardless of the plan you approach, this project will ask your students to use their climate change and photo literacy knowledge to discuss, choose, edit, and write captions for the featured photos or artifacts that make up the exhibition. Just like a curator helps to gather stories and express research and knowledge on a subject to the exhibition design team, your students will have to use a number of complementary skills to effectively display an exhibition for their school, and if possible, their community.

Photos and participation

Students today are not only bombarded with images, but have constant opportunities to take their own photos, and edit and curate their lives. Social media platforms such as Facebook, Instagram, and Snapchat remind us of how powerful photos and images can evoke emotions in people, especially youth.

As museums continue to move towards engagement that connects people to their physical and digital lives, make your exhibition fun and participatory. Ask your students how they will welcome people to interact with and share their experiences—beyond looking at the images and walking away.

Do you want to create a hashtag or meme for your exhibition—or make a digital copy of the exhibition—that you can send to other actors in the community, such as your local politicians, climate change-connected companies and non-profits, the school board, or the Prime Minister of Canada?

Will you take in feedback from the public by signing a climate change action pledge, or by asking visitors to fill a postcard with drawings or sentences to answer a question about climate change? What will you do with the feedback you collect? Can you find a way to communicate it back to visitors and other interested stakeholders?

Engaging outsiders with your exhibition will help your students to feel empowered. Knowing that they are producing something not just as a school project, encourage them to celebrate their collaboration and think of different ways people can share their own stories by looking at the stories from the exhibit materials (photos, artwork, etc.) they have curated.

The process and procedure you undertake to produce your exhibition will vary, depending on what you or your class choose to produce. When preparing an exhibition at a museum, staff use an interpretive plan to help guide the key messages and ideas they want to convey. An example interpretive plan is included in the Appendix (Interpretive plan template) for you to go over with your class.

Review the Interpretive plan with the students, either displayed on a screen or print out copies.

Have a class discussion to determine context, key audiences, and principal messages you want to convey. Ask each student (or if you choose, student groups) creating a piece for the exhibition to work on their line submission for the Interpretive plan. This includes filling out the following information in advance so that students have a rough idea of what the key messages and goal of their contribution will be.

Their list of considerations includes the following:

- Key ideas
- Visitor outcome (i.e. what do you expect visitors to get out of your piece, either when in front of it, or afterwards?)
- Photo/graphics/illustration description (what are they creating?)
- Text strategy (What will their caption say and in what format: a summary of the work, themes, and/or ideas? What questions do they want to pose for visitors to think about?)

An example outline of this is provided on the Sample interpretive plan template.

A few other considerations for you and your students to determine include:

- Installation: Where do you hope to put up your exhibition first, and for how long? Where else would you like it to go? What is required to display your pieces? How can you make it look official?
- Title of the exhibition: What do you want to call the exhibition?
- More information: Do you want visitors to have a pamphlet or a short summary of the exhibition?
- Timeline: When should the final exhibition project be completed by?
- Vernissage/opening: Do you want to have an official opening of your exhibit? Who at the school and in your community would you like to invite?

Tip: You may want to leave some of the coordination of this to small groups of students who may finish the project earlier than others. With your guidance, you might want to invite them to work on certain areas (e.g. determine who to invite and create an invitation, or make an exhibition title poster or heading).

At this point, let the development begin! You may want to expand this project across a few subject areas, as applicable, to also allow your students ample class time to complete some of the major pieces of this final project in an efficient manner.

PRESENTATION

Determine who to invite for the opening, and decide if you'd like students to be evaluated with an oral presentation format during or before the opening. Then, enjoy the communal work of your students and celebrate.

Share your exhibition and your experiences in this project with us! Email us at: energy-energie@ingeniumcanada.org with photos and your feedback, or tweet us at @enertweets.