

Chapter 3: How Does Addressing Climate Change Make Us Healthier?

Inquiry 1: Impacts on Health - Campaign for Vitamin N

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“*Vitamin N* (for “nature”) is a concept coined by Richard Louv, author of the book of the same name. This book and concept is a complete prescription for connecting with the power and joy of the natural world right now, with activities, informational websites, an abundance of down-to-earth advice, and dozens of thought-provoking essays” ([Vitamin N, Richard Louv, 2016](#)).



A. Provocations

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

Image Impressions

Pollution exists in many forms. There is air pollution, water pollution, terrestrial (land - litter, plastic) pollution, noise pollution, and light pollution to name a few. Search for images that depict the harmful treatment of nature. Below are some [creative commons] examples (Click the photo to access the source url).



(© id-10m, 2011 retrieved from: <https://www.flickr.com/photos/id-10m/5842280154/>)



Print off the images (or find your own to print), stick each one on a piece of chart paper, and mount them around the classroom so that students have space to walk around, think about what they see, and respond. This activity is best done in silence with students looking at the pictures as they would in a [Gallery Walk](#), viewing the images, and writing their reaction to the image or interpretation of what they think the image is saying directly onto the chart paper surrounding the image. They can use words or drawing to demonstrate their feelings towards the images. Allow enough time for students to look and respond thoughtfully.



B. Question Generation

At this point in the inquiry, we want to harness students' curiosity and build off of the provocations that have captured their interest by generating meaningful questions to continue to drive the learning process. This section will outline pathways for question generation depending on the provocation(s) that your class engaged with.

Once the gallery walk is complete allow students time to read or discuss the reactions written on the papers.

During the [See, Think, Wonder](#) routines students share their thinking.

Example Activities

Option 1:

Working in pairs, each group of students receives a [See, Think, Wonder worksheet](#). Ask each pair to choose a particular image to respond to. Once students have a chance to discuss with a partner what they 'think' and what they 'see' when looking at the image, students work together to come up with a list of questions that they 'wonder' about when looking at the image. These wonderings can then be collated and the class can choose questions to drive the inquiry on understanding Vitamin N.

Option 2:

Have each student make a "picture frame" by cutting out a frame shape from a heavy stock boxboard (old cereal box) or use popsicle sticks glued into a picture frame shape. Take students on a simple walk in the schoolyard to capture nature's beauty. When students find something in nature that they think is beautiful, have students lay their frames over the object or scene. They can share their captures using another [Gallery Walk](#) or they can use a device to photograph their capture to bring back into the classroom.

Generate questions on the captures that students find. Here is a resource to help:

[Activities for Teaching Children to Ask and Answer Questions](#)



C. Knowledge Building

At this stage, students may be ready to engage in a group knowledge-building activity. It will encourage students to open their minds to many alternative ways of thinking about the provocations and ideas that have been generated thus far in the inquiry process. Engaging in a class [Knowledge Building Circle](#) (ideally outside if possible) is a good opportunity to delve deeper into the topic of human health and encourage participation from many students in the classroom. Find your way into a circle where everyone can see one another and if this is your first knowledge-building circle, make sure that everyone understands their role in the circle. You could pose some guiding questions to the group and mediate the conversation as required. It is a good idea to take notes throughout the discussion or otherwise record the experience to refer to when gauging students' growth in understanding.

Example Activity:

What is vitamin N? According to Richard Louv, author of many books including [Last Child in the Woods](#) and [Vitamin N](#) there are [10 reasons why children and adults need Vitamin N](#).

- 1. The more high-tech our lives become, the more nature we need.**
2. Humans are hard-wired to love and need exposure to the natural world.
3. We suffer when we withdraw from nature.
- 4. Nature brings our senses alive.**
5. Individuals and businesses can become nature smart.
- 6. Nature heals.**
7. Nature can reduce depression and can improve psychological well-being.
- 8. Nature builds community bonds.**
- 9. Nature bonds family and friends.**
10. The future is at stake.

Looking at this list of 10 reasons why adults and children need a healthy dose of Vitamin N, choose up to 5 reasons (bolded ones are our suggestions to focus on with students in grades 3-6) to be at the centre of your knowledge building.

Using a [Knowledge Building Circle](#), explore these statements to allow students to express their understanding and build their knowledge around the importance of nature for health and well-being. Students may find that they want to share stories about their experiences in nature and how those experiences impacted them.

Possible knowledge-building circle questions:

- How do you feel when you are outside?
- What is your favourite place to be? Why?
- When is your favourite time to be outside?
- Do you feel different when you are inside?



D. Determining Understanding

Use responses to inform and guide the learning process. They can provide insight into which concepts need clarity, what many students are already well informed about, and a general direction that many students want to pursue.

Students choose one of the statements from Richard Louv's list of 10 reasons why adults and children need Vitamin N and create a poster to support that reason. The poster should be focused on a good slogan and clearly show, through text and drawings, the message you want to convey. Examples of slogans:

- [Put Down the Screen and Go Outside](#)
- [Screen Time vs Green Time](#)
- Go Wild - Spend Time in Nature
- [Love Your Mother \(Nature\)](#)
- Nature Each Day Keeps the Doctor Away

- Just Do It! Get Outside!
- [Give a Hoot, Don't Pollute](#)
- [Do Your Share for Cleaner Air](#)

Here are two examples of posters to promote an “anti-idling” campaign. Ask students to consider how the message is being conveyed. There is little text, but drawings and symbols also send the message. Have students make rough drawings of their posters and incorporate these techniques to make their message understood.



This site shares the [Advantages of Posters in Education](#) and suggests 6 attributes that a quality poster should contain. This could help in developing the success criteria with the students.

Possible Discussion Questions:

- What does idling mean? Why is this a problem?
- What do you think each symbol on the posters means?
- Why is there a dollar sign on the poster?
- How does the use of capital letters and/or colour help make the point?



E. Pursuing Learning: Impacts on Health

At this stage, students may begin research to pursue some of their questions, or some of the following activities could be integrated into the process to ensure that students have an understanding of foundational climate science. The activities listed below will enrich the understanding of climate change.

Students will continue their exploration of health and climate change. If there is interest, the activities listed below offer deliberate, focused opportunities for students to pursue learning about physical and mental health-related impacts and responses to climate change.

Example Activity: Create a [Survey](#) so that students can investigate what knowledge the public (their community) has about the impacts on health due to climate change. Students can survey through:

- Observations (e.g., during school drop off and pick up times, have students tally the number of cars and buses that idle while waiting for students, observe how peers

deal with their garbage, recyclable and compostable items during lunch and snack times)

- Interviews (e.g., students create questionnaires and interview members of the school community, their parents and friends).
 - They can ask questions about simple environmental actions that promote good health, how people use nature or feel about being in nature
 - Or they can ask people about their knowledge of environmental problems (such as air pollution, light pollution, use of plastics, etc.) that contribute to climate change.

The results of these surveys can then be used to help direct students' campaigns promoting the importance of Vitamin N and good behaviours that promote positive environmental actions.

Mental Health Break:

To get their own healthy dose of Vitamin N (particularly if students are feeling overwhelmed), spend time outside in a natural space. Learn how to do [Sit Spots](#) outside as a coping, relaxation strategy as well as a learning activity. Start with one minute and increase the time every day or week. At school, travel outside as a class with their Sit Upon, a mat or bag to sit on that will keep them dry. Try to find a place that your class can revisit on a regular basis, perhaps every week or every month. Encourage students to sit a minimum of two metres apart and invite them to quietly observe what is around them, do some breathing exercises or just to relax and enjoy their surroundings.



F. Consolidation

This step is designed to encourage students to integrate and synthesize key ideas. When students make connections and see relationships within and across lessons, this helps them to solidify knowledge and deepen understanding.

Using all of the information from the inquiry up to this point, students create a campaign to promote the importance of Vitamin N. A campaign is an “organized course of action to achieve a goal” (Oxford Language Dictionary, 2022). The goal is to spend more time in nature to increase our exposure to Vitamin N.

A campaign has more than just a poster to promote your ideas, it also needs a plan. Students will choose an action that gets people outside more often.

[Click here](#) to see some examples of a successful campaign from the company Stihl's “Get Real” Campaign.

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.

The [Choice Board Strategy](#) incorporates the principles of [Universal Design Learning \(UDL\)](#) by encouraging multiple means of expression. Students choose a mode from the choice board (see sample below) to present their understanding of their learning.

Choice Board Strategy Example guiding questions:

- How does addressing climate change also help improve our health?
- What climate solutions are also healthy lifestyle choices?
- Why is being in nature important for the health of living things?
- What can we do to help our environment?
- What is a healthy lifestyle?
- Does everyone have the accessibility and opportunity to have a healthy lifestyle?
- What factors may influence a healthy lifestyle?

Sample Choice Board

Create a Bumper Sticker	Tell an Oral Story	Make an Announcement
Draw a Picture	FREE CHOICE	Think like a plant
Make Music (any materials)	Sing a Song	Use Recycled Materials to Make a Model



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.

Ask the students what they want to do to positively impact climate change. List their ideas and come up with a plan to put their action in place. Use the choice board activities the students chose to share information with other classes or the community.

While the future is uncertain, there are many examples of positive actions happening all around the world, and too often these stories do not get media coverage (check out [The Happy Broadcast](#) to get some good news for a change!).

Finding actions that students can get involved in is paramount and in the subsequent thematic inquiries, there are many examples of school projects and activities. As we collectively oscillate between optimism and outrage, stories of the past can also be important for active hope pathways.

Ideas for Taking Action:

- [A ready-made vehicle idling campaign](#) (NRCAN, 2015)
- Create their own anti-idling or idle-free posters for their community. [Catalogue of Potential Idling Reduction Campaigns](#) (NRCAN, 2015)
- Educate the school through different announcements sharing “waste and water facts”. Post the garbage collection graph on the wall outside the classroom. Do a second schoolyard garbage audit a month later. Put the second graph on the wall. Celebrate successes.
- [How to Help the Earth By The Lorax](#) by [Tish Rabe](#), illustrated by [Christopher Moroney](#) and [Jan Gerardi](#)
 - **Please note:** LSF supports the removal of other Dr. Seuss materials that have been discontinued because of anti-Black and anti-Asian racism.

Create some announcements to share with the school.

- **Play the Freerice game from UN World Food Programme**
 - Global hunger is one of the most pressing social issues, but it’s also the most solvable. **Freerice** is a free online educational trivia game where people of all ages can do their part—simply by playing. Every right answer on Freerice triggers a real financial donation to the [UN World Food Programme \(WFP\)](#) from sponsors worth about 10 grains of rice.
 - The game has five difficulty levels and over 20 categories of questions to choose from, such as English vocabulary, Languages, Science, Humanities, World Landmarks, and a new category called “Coronavirus: Know the Facts.”
 - Use your time and knowledge to help provide food for people in need. The game is available online at [freerice.com](#) or as a free app in the android or iOS app stores.
- [UN Climate Action Superhero: Become a “Veggie Vindicator”](#)
 - “Educate everyone on why to eat - and appreciate - eating more veggies”.

- Collect non-perishable food for your local Foodbank at different times of year.
- Host a local food festival showcasing local and nutritious foods that come within a certain distance from your community
- Start a Meatless Monday campaign at your school challenging students to eat more plants
- [Become a Water Wizard!](#) A water wizard “keeps dangerous plastics from getting into the ocean and makes sure you don’t let water go to waste”.
 - [Create a Campaign for World Water Day](#) (March 22) or World Water Week (the week of March 22).
- [14 Ways You Can Help the Earth...Starting Now](#) (CBC).
- Plan and Promote Participation in [The Great Gulp](#) (raising awareness about drinking water and single-use plastic bottles).
- Join the [Changemaker Classroom](#) and commit to a Changemaker Project where 1 global goal is selected and a local action project is implemented.
- Select one of the UN Goals and one or more of the suggestions on the “[World’s to do](#)” list to act on.
- Create, advertise and promote your own “day” related to one of the SDG goals such as [World Toilet Day](#) that brought attention to sustainable water sanitation and climate change.
 - Students can choose to download the “SDG in Action” app onto their phones at <https://sdgsinaction.com/> to learn more about any of the 17 goals, find out what can be done and then create or join an action team.
- Create a plant-based cookbook, collecting recipes from families in your school. Sell the cookbook as a fundraiser and donate the money to a local Foodbank.

Action Project Examples

How could you use these great examples to come up with action projects with your students?

- Feeding Our Community - Ruth Betts Community School - Flin Flon, MB (2019)
 - Students at RBCS built a community garden to increase the availability of affordable fresh produce. Students acquired the knowledge to build, grow, and harvest their own fresh fruit and vegetables and how to utilize them in daily meals and snacks. The garden contains a plant medicine wheel, ceremonial plants, and a three sisters garden, incorporating traditional knowledge. [See their project here.](#)
- VegFest - E.L. Crossley Secondary School, Pelham, ON (2016)

- E.A.R.T.H. club members at E.L. Crossley hoped to inform their fellow students about the positive impacts a plant-based diet can have on the future of our planet. Students organized a week of veggie-friendly events with the support of various local community partners. The week's events included a vegan cooking class with a local natural chef, a screening of the documentary Cowspiracy, a smoothie day, vegan salad bar extravaganza, cafeteria games, and a vendor day. VegFest received an overwhelmingly positive response and high levels of student participation each day. [See their project here.](#)
- [Connect with Nearby Nature - Ecoschools Canada](#)
 - "Nature" is often understood as a place far away from human involvement. However, humans exist within natural systems all the time, even in urban environments! The **Connect with Nearby Nature** action incorporates outdoor, environmental learning to foster relationship-building between people and place, including all the more-than-human others who also call that place home. Students will get to know their ecological neighbours by practicing inquiry, observation, identification, research, and communication skills to build their own nature-connections and knowledge, and share learnings with their communities. Specifically, this action involves the creation of **field guides**, **maps**, or **outdoor signage**. See resources and details [here](#).
- Daily Actions to Make a Difference
 - This resource offers a page of ideas for each of the 17 UN Sustainable Goals. Students can get inspired by the suggestions offered and select some they can follow to make a difference in the world. [170 Daily Actions to Transform the World](#)