

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

Inquiry 2: Impacts on Health - Sustainable Well-Being and Food Security

- < **Provocations** – Videos, game
- < **Question Generation** – See *Think Wonder*
- < **Knowledge Building** – Book, “*Getting Critical*”: Digging Deeper
- < **Determining Understanding** – *Stop and Think*
- < **Pursuing Learning** – Research
- < **Consolidation** – Guided Reading, Drama
- < **Assessment** – *I Used to Think... Now I Think*
- < **Take Action**

“**Well-being** is a feeling of satisfaction with life, a state characterized by health, happiness, and prosperity. **Good health** concerns the care of the human body and everything that can be done to protect it from sickness and intoxication and enable access to care” ([UNESCO, 2021](#)).

- [SDG Resources for Educators: Good Health and Well-Being](#)
- [SDG3: Health & Well-being](#) [Barcelona Institute for Global Health, ISGlobal]

“**Hunger** is an alarm signal sent by the body when the stomach is empty and the blood sugar level decreases. Malnutrition occurs when the body adapts to the prolonged absence of food, losing weight and functioning more slowly.” ([UNESCO, 2021](#)).

- Primary: [SDG 2: Zero Hunger](#) [MAPFRE]
- Junior: [SDG 2: Zero Hunger](#) [MAPFRE]



A. Provocation

To hook student interest, these videos introduce the UN’s Sustainable Development Goals (SDGs) and help students focus on goal #2 Zero Hunger and goal #3 Good Health and Well-being. Watch all of these videos before playing the game called [The Food Security Budget Game](#).

Videos

[Malala Introducing the World Largest Lesson](#) (6:19 minutes)

The World’s Largest Lesson Introduced by Malala Yousafzai. This introductory video explains the global goals in terms that young children can understand.

[SDG3: Health & Well-being](#) (2:23 minutes, suitable for grades 5 and up)

The Sustainable Development Agenda including SDG 3 is about ensuring healthy living, fostering well-being for all people at all ages and promoting indicators to monitor progress. This can only be achieved through local action.

[Good Health and Well-Being Goals](#) (3:01 minutes, suitable for grades 4 and up)

This simple show explains the good health and well-being goals in a nutshell.

[Understand Goal 3: Good Health and Well-Being](#) (1:56 minutes, suitable for grades 4 and under)

An introduction to goal 3 for primary students.

[Every Plate Tells a Story](#) (2:05 minutes)

From healthy eating to reducing wastage, eliminating plastic packaging, sourcing closer to home and checking on the practices of food producers, children will roll up their sleeves and dig into Goals 2, 3, 13, 14, and 15 ([The Worlds Largest Lesson, Every Plate Tells a Story, 2020](#)).

Game: [Food Security Budget Game](#)

Review the definitions provided within the link with students. There are several “think and answer” questions on page 4 that you might choose to share with your class and can be modified based on the province or territory where the students live. Decide whether you would like students to work individually or in a group and hand them a “Food Security Budget Activity” worksheet from page 7. The directions are provided on page 5 so that the class can play one or more games.



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.

The [See Think Wonder](#) routine encourages students to make careful observations and make thoughtful interpretations. It helps to stimulate curiosity and set the stage for inquiry.

Example Activity 1:

After watching the video [Every Plate Tells a Story](#) have students dive into their lunchboxes to analyze their food choices. Use the See, Think, Wonder strategy to explore where (in the world) their food has come from and how it got to their lunchbox! How many questions can they generate about each item?

and/or

Example Activity 2:

After watching the video [Every Plate Tells a Story](#), have students participate in a group ‘lunchbox’ analysis. Using a simple cardboard box, create a “lunchbox” using pictures from grocery store flyers for each group of 4-5 students. Instruct students to cut out up to 10 pictures of their favourite foods, filling their “lunchbox” with images. Once filled, students work together to sort the food into groups (criteria to be determined by the teacher and grade level of the students). Suggestions for sorting criteria: using [Canada’s Food Guide](#) (available in 31 languages including 10 of Canada’s Indigenous languages), where the food originates, seasonal availability, or processed or not processed to name a few. From these images, have students generate questions they could ask their local grocery stores about sourcing

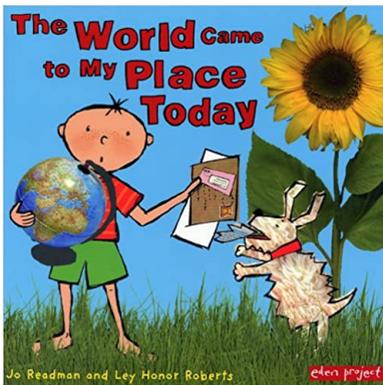
local foods. For example: when purchasing fruit that is in season in Canada, such as apples in the fall, why do grocery stores still carry apples from Mexico?



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.

Book: [*The World Came to My Place Today*](#) by [Jo Redman](#), illustrated by [Ley Honor Roberts](#)



The world really does come to visit George when his grandpa arrives, with a globe, to look after him and his sister for the day. Grandpa explains how everything from the cereal they eat for breakfast and the chocolate bars they love, to the rubber in their bicycle tyres and wood in their toys, come from plants all over the world.

The slideshare version can be downloaded from [a Scribd company](#).

Example Activity:

This storybook explores where our food comes from and how it gets to our plates. After sharing the story, using the **Change for Children's** resource called [The Wonderful World of Food](#), dig into global food facts and then use the "Getting Critical" exercise to investigate food security, scarcity and fair trade issues.



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.

Ask students to cut out pictures of food that would make up one of their typical meals and

put them together on a plate. Using the poster that they will already be familiar with from the Question Generation section, [Every Plate Tells a Story](#) (appendix B in World's Largest Lesson's resource), have students "STOP AND THINK" and make connections to the other global goals by asking themselves the questions:

- Who grew or helped produce my foods?
- How far did my food travel to get to me?
- What was my food packaged in?
- Am I making healthy choices?
- How much food am I wasting?
- What can I do differently and who can I tell?
- What is the ecological footprint of the food I eat?

From these images and with the knowledge they've gained through this inquiry so far, have students try to create a balanced meal that has the smallest ecological footprint using the [GreenEatz Food Carbon Footprint Chart](#).



E. Pursuing Learning

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.

This is an opportunity to make some local connections to grocery stores that could lead to action. Investigate the ["Ugly Food" or "Misfits" movement](#). This is a movement towards embracing food that doesn't look perfect but is perfectly good to eat.

"In Canada we waste nearly as much food as we eat. Approximately 30 percent of that food is fresh fruits and vegetables—25 million pounds—rejected before it reaches the distributors, stores and our plates. The desire for "perfect", unblemished produce means perfectly edible food gets tossed simply because it's not pretty enough. Consumers rarely even see curvy carrots, bulbous potatoes, or twisted zucchini because of supermarket restrictions based on strict inspection regulations governed by the Canadian Food Inspection Agency (CIFA)" (Holly Brooke, "Fight Food Waste, Eat Ugly Vegetables," [Eat Magazine. 2015](#)).

Connect with your local grocery stores to see how they deal with "ugly food" and food waste. Here are some other resources to the movement:

- [Canada is Warming up to Ugly Vegetables](#) (Vice, 2016)
- [Ugly Food Works - and you can get it for 30% less](#) (Global Citizen, 2016)
- [Meet the Misfits - Ugly Food](#) (Radical Health, 2018)
- [The Imperfect Garden](#) by Melissa Assaly



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, it helps them to solidify knowledge and deepen their understanding.

Guided Reading of the graphic story [The Rise of the Plate PioneerZ](#) written by Joe Reiter with support of the World's Largest Lesson and UNICEF. As a class or in small groups, read the story and complete the activity sections at the back of the comic. Have students, working in small groups, take part in a drama activity where they act out the dialogue in the graphic story. Students can improvise additional dialogue to enhance the story.

After reading and/or the drama activity, facilitate a classroom discussion on a definition of a Plate Pioneer to check understanding. This activity comes from the [Plate PioneerZ](#) resource.



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 [I Used to Think... Now I Think...](#) routine helps students to reflect on their thinking.

Example Activity:

Using some of the following sentence starters, have students complete the **I Used to Think... Now I Think**

- Unemployed people are food insecure
- Food securities affect only senior citizens
- People who are food insecure are bad at cooking
- People who are food insecure budget poorly and make unhealthy food choices
- Healthy food is cheaper than junk food
- There is nothing I can do to help food security issues in my community



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 - Read Aloud](#)

Create some announcements to share with the school.

- **Play the Freerice game from UN World Food Programme (WFP)**
 - 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 plant
- [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” (UN, 2020).
- [Create a Campaign for World Water Day](#) (March 22) or World Water Week (the week of March 22) (Ecoschools, 2017).
- [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) (Ecoschools, 2021).
- [Join the Changemaker Classroom](#) and commit to a Changemaker Project where 1 global goal is selected and a local action project is implemented (The Changemaker Classroom).
- [The Worlds To Do List](#): Select one of the UN Goals and one or more of the suggestions on the “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 (UN, 2020).
- Students can choose to download the “[SDG in Action](#)” app onto their phones to learn more about any of the 17 goals, find out what can be done and then create or join an action team.-based foods
- 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](#)