



AGRICULTURE

IN THE CLASSROOM-EN CLASSE

NEW-NOUVEAU BRUNSWICK

Food Systems

Student Worksheet

Abstract

Provides students with an overview of **food systems** and how they affect them and their community. Students will also learn about **food deserts** and the **logistics** of food distribution by **mapping their local food network**.

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Part 1: What are food systems?

A **food system** refers to all the interconnected processes involved in feeding a population. It includes **growing, harvesting, processing, packaging, transporting, marketing, distributing, and consuming** food. Food systems dictate our **nutrition, health, community development, and agriculture processes**, and are essential to addressing challenges such as **hunger and sustainability**.

In your own words, describe what a **food system** is:

Check all the activities that are part of the food system:

- 
- Growing Food
 - Marketing Groceries
 - Building Schools
 - Harvesting Crops
 - Transporting Produce
 - Developing Video Games

Part 2: Food in your community

Where or how do people in your community get food? (Check all that apply.)

- Grocery Store
- Convenience Store
- Farmer's Market
- Restaurant
- Food Bank
- School
- Garden
- Hunting
- Fishing
- Foraging
- Other: _____

Name: _____

Food Systems

Date: _____

If you **couldn't drive, couldn't access public transit, or had mobility issues**, how would that impact your ability to access food?

Part 4: Mapping food access

Start by exploring GIS mapping careers using "**Link 1**" to visit the *thinkAG* Geospatial Analyst career page.

How is GIS mapping used in agriculture?



What is one thing that you like or dislike about this career?

Name: _____

Food Systems

Date: _____

Access the Eastern Charlotte Waterways (ECW) mapping tool using “**Link 2**” and refer to it when answering the following questions:

1. Find **3 places** within 25km of your house where you can buy food.

2. Were you able to find 3 places in your area where you could access food?

Yes

No

3. Do the places you found offer **affordable and healthy options**?

Yes

No



If not, what might be some obstacles to food accessibility in your area?



Name: _____

Food Systems

Date: _____

4. Identify **one food system location** not currently visible on the ECW map that you can add. It can belong to any of the following categories:

- Food Production
- Food Retail Service
- Food Access
- Distribution and Storage
- Other Resources

Get the name of the business, determine its category, find the address, website or social media posting, and **obtain approval from your teacher** before adding it to the map.

ECW Map New Food System Location

Name of Business: _____

Category: _____

Address: _____

Website: _____

Tags: _____



Part 4: Food deserts

Food deserts are areas where people have limited access to **affordable, healthy food**, often due to **low incomes** or **distance from food sources** such as grocery stores.

Using “**Link 3**” from the section at the back of this document, access the Government of Canada’s *Open Government Portal* and visit the page titled “Indices of food desert and accessibility to food shops”. Here, you can select the “Access to the nearest food store (m) 2021” map to get an overview of how far people living in certain areas of Quebec need to travel to access stores selling items with high nutritional value. To view the map’s legend, select the menu in the top left corner and open the map section to see the distance each colour represents in meters.

Name: _____

Food Systems

Date: _____


In the same menu, you can also select the eye icon next to the text “*Indice de désert alimentaire, 2021*” and switch the map to displaying food deserts with the corresponding legend, where dark red indicates rural food deserts and orange indicates urban food deserts.

Using this map, what would you say are the average distances for a food desert in rural and urban locations in the province of Quebec?

Rural: _____

Urban: _____

Can food deserts exist in places where food is grown, such as farming communities? Why or why not?



Are there any areas in New Brunswick that could be considered a food desert? Consult the ECW map and search for communities with few or no locations linked to food systems.

Name: _____

Food Systems

Date: _____

Watch the video using “**Link 4**” on food prices in Iqaluit. What challenges do northern Canadian communities face when accessing food? Do we have any challenges accessing food in New Brunswick?

Part 6: What are logistics?

Food logistics refers to all the processes that make sure food **travels safely and efficiently** from farms to consumers. This includes **transportation, storage, refrigeration, and delivery.**

Why are food logistics important in the food system? What could happen if they are poorly implemented, or not implemented at all?

Use “**Link 5**” to read the *thinkAG* career profile for Truck Driver. Then, use “**Link 6**” to view the occupational profile for a transport truck driver in New Brunswick. Provide a summary of the professional opportunities in New Brunswick for this career.

Links

Link 1: thinkAG – Geospatial Analyst (<https://thinkag.ca/en-ca/explore-careers/career/geospatial-analyst#location-nb>)



Link 2: ECW – Local Food Connections Map (<https://gis.dillon.ca/maps/apps/experiencebuilder/experience/?id=13c6067cad574b6084bd89c870e95008>)



Link 3: Open Government Portal – Indices of food desert and accessibility to food shops (<https://open.canada.ca/data/en/dataset/c69d8357-061a-4122-b8b9-51bcbc786aa7/resource/5887b444-0d1b-4f35-b051-55d43a9a2978>)



Link 4: YouTube – Iqaluit food prices June 2025 (<https://www.youtube.com/watch?v=cXZmCDVx7UA>)



Link 5: thinkAG – Truck Driver (<https://thinkag.ca/en-ca/explore-careers/career/truck-driver#location-nb>)



Link 6: NBjobs – Transport Truck Driver (<https://www.nbjobs.ca/occupations/occupational-profiles/73300/Transporttruckdrivers>)

