Mapping Food Deserts in the City of Chicago

**Lesson Overview:** This lesson is inspired by the research of Dr. Daniel Block of Chicago State University’s Department of Geography. Students will explore the meaning of the term “food desert” and its socioeconomic implications. Google Maps will be used to plot food sources in a variety of Chicago neighborhoods, leading to deep discussion on the equity of food access in one of America’s largest cities. Students will also have the opportunity to explore campaigns currently working to aid food desert communities in Chicago. The lesson was developed based on information presented at the University of Chicago Center for International Studies 2012 Summer Teacher Institute, “Feeding the World: Challenges to Achieving Food Security.”

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**Subject(s):** Social Studies; Technology

**Suggested Grade Level(s):** 6-8 (easily adapted for upper grades)

**Time Duration:** Two to three 45 minute class periods

**Common Core State Standards Addressed:**
Common Core Reading Standards for Literacy and Speaking and Listening in History/Social Studies

Reading Informational Texts Key Ideas and Details, Standard 2
- Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions (Grades 6–8)

Reading Informational Texts Integration of Knowledge and Ideas, Standard 7
- Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue (Grades 6–8)

Writing Standards Production and Distribution of Writing, Standard 6
- Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others (Grades 6-12)
Writing Standards Research to Build and Present Knowledge, Standard 7
• Conducting research to answer a question using multiple sources (Grades 6-12)

Speaking and Listening Comprehension and Collaboration, Standard 1
• Initiate and participate effectively in a range of collaborative discussions; build on others’ ideas and express ideas clearly and persuasively (Grades 6-12)

Speaking and Listening Presentation of Knowledge and Ideas, Standard 4
• Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation (Grades 6-12)

Objectives:

• Students will chart sources of food and think through the ways that access to food could be different depending on a variety of socioeconomic factors.
• Students will examine the definition of a food desert and the variety of characteristics that may qualify a community as such.
• Students will use technology through Google Maps to plot out the major food sources in a variety of Chicago neighborhoods.
• Students will use the data collected through Google Maps and other demographic data sources to engage in deep discussion surrounding food equity in the City of Chicago and some of its socioeconomic implications.

Materials:

• A pen/pencil and paper for each student
• Dry erase board/chalkboard
• Computers with Internet access or printed copies of “America’s Food Deserts” from The Week: http://theweek.com/article/index/218167/americas-food-deserts
• Computers with Internet access for Google Maps: https://maps.google.com/ and a demographic map of Chicago from Radical Cartography: http://www.radicalcartography.net/index.html?chicagodots
• Link to “Mapping Chicago Food Access Student Worksheet Template” through Google Docs, or paper copies for each group of students if Google Docs is not accessible at your school: https://docs.google.com/document/d/1Zh0cVvJKRwmZ9dYKkw_8VuXBSCU3VouGrUgzVDxrYs/edit
• OPTIONAL: Dr. Daniel Block, Geography Department at Chicago State University, video lecture given at the University of Chicago Center for International Studies 2012 Summer Teacher Institute, “Feeding the World: Challenges to Achieving Food Security.” http://cis.uchicago.edu/outreach/summerinstitute/2012/resources.shtml
Activities and Procedures:

Part One: Introduction to Food Access

1. When students enter the room, have the following “Do Now” prompt written on the board and ask them to write a response quietly either in a journal or on a loose leaf sheet of paper:
   a. Meet the Madisons—a family of five with three young children. Mrs. Madison wants to make dinner for her family and decides she wants to make a fresh and healthy meal of barbeque chicken, baked potatoes, green beans, and a side salad. She does not currently have any of these items in her home. Think through the following questions, then write your responses in your journal:
      i. What does Mrs. Madison need and what actions does she need to take in order to get together the menu that she wants for her family? (Hint: Think about WHERE she will need to go, HOW she will get there, WHAT she will need to get and with what, etc.)

2. Give students at least five minutes to really think through the process of providing food for one’s family. When the group seems to be finishing up, ask students to turn to the person next to them and compare their responses. They are free to add in any steps that they may have forgotten that a peer may point out.

3. After a few minutes, ask students to share what they came up with and chart their responses on the board. Here are some possible ways to guide the discussion:
   a. Where does Mrs. Madison have to start? (She needs to GET the ingredients for her meal)
   b. Where does she need to go in order to get all of these items? (She will need to go to a grocery store or market that can provide all of these items. Point out that she also wants fresh and healthy ingredients, so she will need to go somewhere with fresh produce)
   c. What does she need to actually walk out of the store with these items? (MONEY!)
   d. How did she get there? (She could bike or walk if it is close enough, but ONLY IF she is physically able to carry everything, or owns a bike with a basket. She could drive, ONLY IF she owns a car. She could take the bus or train, ONLY IF public transportation travels between her home and the store. She could ride with a friend, ONLY IF she has a friend with a vehicle willing to take her, etc.)
   e. Assuming Mrs. Madison makes it home with her groceries, what does she then need to do and have in order to make the meal for her family? (She needs a kitchen to cook the food. She needs cookware to cook. She needs utensils and plates for her family to eat the food)
   f. Are there any other events that may make obtaining food difficult for Mrs. Madison? (Maybe she works late and has to make it to rush to the store before it closes. Maybe she has to take all the kids with her to the store
and they make it difficult for her to shop. She may not have an adequate kitchen to cook such a large meal. etc.)

4. Once you feel that students have thoroughly fleshed out the process of Mrs. Madison obtaining food, ask, “Was this process as easy as you originally thought? What were some of the challenges in this process of obtaining food that surprised you, or were there challenges you hadn’t previously thought of?” Give students time to share.

5. Explain to students that of course Mrs. Madison is not real; therefore, we do not know anything specific about where and under what conditions she lives, how much money she has, or anything else about her. What we have learned is that her ability to feed her family depends on variety of factors that could make an incredible difference in her efforts. Some people do not have to worry about much at all, and may find this process very easy, while others may face a number of seemingly insurmountable obstacles in simply providing a meal for their families. Explain that the rest of this lesson is going to focus on accessing food and the variety of circumstances that people face when feeding themselves and their families.

Part Two: Defining a Food Desert

1. Explain to students that you are going to look deeper into one major food access issue that affects people all over the world—the food desert. (For younger students, you may want to do a preview and ask, “What does the word desert make you think of? How might the idea of a desert relate to food?”)

2. At this point, either pass out copies of “America’s ‘Food Deserts’” (see: http://theweek.com/article/index/218167/americas-food-deserts) or have students log on to computers and access the article via the Internet.

3. Have a student read the first section, “What is a ‘food desert’?” out loud. Direct the group to follow along and either underline or take mental note of the qualifications that the article gives for what makes a food desert and what kinds of people are affected.

4. Have students recall what the article says are the qualities of a food desert and list them on the board (a community where residents travel at least a mile to buy fresh food; at least 20% of the people live below the poverty line and 33% live over a mile away from the nearest supermarket, or 10 miles in rural areas). Explain to students that food deserts occur in both rural and urban areas. Food deserts often lead the populations of those communities to resort to processed or fast food that can cause health problems due to a lack of fresh food and proper nutrition.
a. For younger groups, you may need to define what it means to “live below the poverty line,” or live in a “rural” versus “urban” area.
b. If appropriate, you may want to take this opportunity to discuss how these characteristics do or do not apply to the students’ own community.

5. Explain to students that they are going to learn more about food deserts—where and why they occur—by looking at the food accessibility of a variety of communities in Chicago, IL (Note: this lesson can be adapted for other cities).

Part Three: Mapping Food Access in the City of Chicago

1. At this point, students will need access to the Internet and enough computers for students to work individually or in small groups on each device.

2. Put students in small groups (3 is ideal) and assign each group one of the following Chicago neighborhoods (you can add more or less options as you see fit; the point is to have a variety of socioeconomic situations represented).

   a. Lincoln Park
   b. North Lawndale
   c. Austin
   d. Humboldt Park
   e. Englewood
   f. South Shore

3. Explain to students that they are going to be using Google Maps to find out what kinds of permanent food sources are available in their assigned Chicago neighborhood. They will also be looking at demographic information (statistics about a population) on their neighborhoods and will attempt to draw some conclusions about food deserts based on this information.

4. Give students the link to the Google document template for this assignment titled “Mapping Chicago Food Access Student Worksheet Template,” (https://docs.google.com/document/d/1Zh0cVvJKRwmZ9dYKkw_8VuXBSCU3YouGrrUqzVDxrYs/edit) or provide each group with a paper copy of the document if Google Docs is not accessible at your school.

   a. Google Docs is ideal because of its unique collaborative abilities, which allow multiple students to edit a document simultaneously. For more information of Google Docs and setting up Google Apps for Education at your school, see here: http://www.google.com/apps/intl/en/edu/docs.html

   b. **IMPORTANT NOTE:** Students will need a Google account to make a copy of the document template and share it with each other and the teacher.
Check with your school to see whether this is a possibility. If not, then either students can copy and paste the template into a Word Document and type their responses, or you can provide them with a paper copy.

**Note:** Students do NOT need an account to simply access Google Maps.

5. Have students follow the directions on the Google Doc worksheet and allow enough time for students to complete all the tasks. This may take more than one class period.

6. When students are finished answering their questions, you can either have them share with the group orally, or they can share their Google Docs with the rest of the class and read each others’ findings.

   a. The following are examples of information students may find. (For more data, see Dr. Daniel Block’s findings in his “Feeding the World: Challenges to Achieving Food Security” Institute PowerPoint Presentation: [http://cis.uchicago.edu/outreach/summerinstitute/2012/resources.shtml](http://cis.uchicago.edu/outreach/summerinstitute/2012/resources.shtml))

   i. North Side neighborhoods (Lincoln Park example) are predominantly white, high income, and tend to have superior access to quality food chains and specialty/health food markets. Lincoln Park is far from a food desert—possibly more of a food oasis.

   ii. Far West Side neighborhoods (Austin, North Lawndale) are predominantly African-American and low-income, and tend to have inferior access to quality food chains and fresh food and health food markets. There is a higher concentration of discount food marts, corner stores, and gas station food marts. Both of these neighborhoods are commonly referred to as food deserts.

   iii. West Side neighborhood, Humboldt Park, is predominantly Hispanic. It is lower-income with fewer major chain grocers, but there is a high concentration of ethnic food marts and fresh food marts. Parts may qualify as food deserts, but not all.

   iv. South Side neighborhood, South Shore, is predominantly African-American with a small minority White population. It is somewhat mixed-income, with a majority lower-income. Access to food markets is somewhat mixed. Parts may qualify as food deserts, but not all.

   v. South Side neighborhood, Englewood, is predominantly African-American and low-income. It shares similar characteristics with Austin and North Lawndale in terms of food access. It is commonly referred to as a food desert.

7. It is important at this point in the lesson, after all students have shared their information, to confront some difficult issues regarding the relationship between food security, race, and socioeconomic status. **What did the students notice**
about this relationship? Why do they think this relationship exists in Chicago?

This is a difficult topic to confront. As discussion starters, consider reading some of the quotes from individuals living in “food desert” communities interviewed by Dr. Daniel Block and his team of researchers:

a. • Female African-American Consumer: “In the predominately white neighborhood, I have went to the produce, seen unusual vegetables and fruits…near (them)… they would have little pamphlets, explaining, talking about the nutrition of fruit, where it comes from, what it’s supposed to taste like, and how it should be used. But I’ve never seen that in my neighborhood.” (Austin consumer, 2004)

b. • Female Voice: We just don’t get proper food. They give us the bottom of everything.

c. • Male Voice: It’s like that because, as I said before, the stores in the Black community get worse food than the White community…

d. • Male Voice: They care about what they give them at those stores in the suburbs, but here they don’t care. They think, "Oh, well. Give them whatever and they'll take it."

e. • Female Voice: Yeah, that's it. "Give them whatever." They get greedy (Englewood, Community Member Group Interview, 2006).

What does each of those quotes reveal about this complicated relationship?

8. At this point, it is crucial to show students that efforts are being made to alleviate these issues. Consider either showing students the following efforts together as a large group, or assigning a campaign to each group to research for homework:


9. Since this is a deep and complex topic, end by asking students simply to journal for a few minutes about their learning for the day. What did they learn about access to food? How did this information make them feel? What action(s) do they think the city should take in response to food deserts, if any?

Assessment:

For homework, consider asking students to research one of the organizations mentioned above and what kinds of actions they are taking to relieve food deserts in Chicago. Have them think about ways in which they can help increase access to fresh foods in their own community.
Additional Resources:

- TedxTalk, Maria Gallagher, “Food Deserts,”
  http://www.youtube.com/watch?v=iEWriN6kh3c&list=PLED72624222C8684E&index=1&feature=plpp_video
- “Google Maps” from TeachingHistory.org http://teachinghistory.org/digital-classroom/tech-for-teachers/24658

Adaptation:

If the technology is not available to access Google Maps on a class-wide scale, consider printing maps of the neighborhoods and have students conduct the lesson on paper.