

## LESSON ONE: TRACE YOUR PERFECT PLATE

**Objective:** The goal of this activity is to calculate and record the estimated miles that various food ingredients must travel before being placed on your table. This is an extension of your “Food for Thought” question in class today, “What is your favorite meal; List the ingredients.” Follow the directions on this worksheet and those of your teacher to complete this activity.

**Materials Needed:**

- Pencil
- Eraser
- Ruler
- Computer with access to an online map and search engine

**Part One: Tracing the Origin**

**Step One:** Look at the answers to your “Food for Thought” Questions from class today. List the ingredients from your favorite meal in the table below. List every single ingredient that you can recall. For example, if your favorite meal is chocolate cake, you should list flour, eggs, sugar, cocoa, butter or oil, baking powder, etc. Then, in the right column, list where you believe those ingredients originated (Besides the supermarket, where did it come from?).

<b>Favorite Meal Ingredients</b>	<b>Where you think that ingredient came from... (NOT the supermarket)</b>

**Step Two:** With a partner, answer and discuss the following questions:

1. Apples are not grown in only one location in the world. How many of your ingredients in the table above do you believe have multiple places of origin?
2. Spinach is a popular meal and salad ingredient throughout the year in our country. It is also a major import (product shipped from other countries to our country) in the United States. Spinach is a “cool season” plant that grows best in 50-60 °F and locations with mild climate can grow spinach year round. List and discuss with your partner all of the places where you believe spinach is farmed:

**Part Two: Calculating “Food Miles” for Spinach**

*\*Special Notes for this portion of the assignment. All food products may not come to you directly from a farmer. They often must travel to a processing facility and then a retailer, such as a restaurant or supermarket. For this portion of the assignment, we are considering only the distance from the farm to our school.*

**Step One:** Track the distance between our school and common locations in which Spinach is grown.

Our School Address: \_\_\_\_\_ (Use this to calculate distance using maps)

Using the computer and an online mapping system, such as Google Maps, list the distance in miles from our school to the following locations.

Yuma, Arizona: \_\_\_\_\_

Salinas Valley, California: \_\_\_\_\_

Ontario, Canada: \_\_\_\_\_

Beijing, China: \_\_\_\_\_

Yucatán Peninsula, Mexico: \_\_\_\_\_

A farm in our county (name given to you from your teacher): \_\_\_\_\_

**A FOOD MILE IS...** the distance that a product travels from the production area (farm) to the consumer.

**Step Two:** Calculating Steps. There are 5,280 feet in a mile, or 2,640 steps. Multiply the miles from each distance above with the number of steps in a mile to calculate the steps it would take to walk the distance to the above spinach farm locations.

Location	Miles from You	Steps in a Mile	Total Steps from You
<i>Example: Local Farm</i>	<i>3 miles</i>	<i>X 2,640 steps</i>	<i>= 7,920 steps</i>
Yuma, Arizona		X 2, 640 steps	
Salinas Valley, California		X 2, 640 steps	
Ontario, Canada		X 2, 640 steps	
Beijing, China		X 2, 640 steps	
Yucatán Peninsula, Mexico		X 2, 640 steps	
Local Spinach Farm		X 2, 640 steps	

**Step Three:** Bar Graph

Create a bar graph on the next sheet of paper that compares the distance in EITHER steps or miles for each Spinach farming location to our school. Label the x-axis with the locations and the y-axis with the number of miles or steps. For example:



**Part Two: Step Three Bar Graph****Part Three: Questions for Reflection**

*Answer the following questions silently and wait for your teacher to ask for open discussion.*

- 1.) Which farming location was the farthest from your school?
- 2.) How do you think a bag of spinach would make it to your school from the location answered in #1? By train, plane, ship, or truck?
- 3.) List two environmental impacts that could be caused from transporting spinach from China versus a farmer down the road.
- 4.) If spinach is shipped from a farmer in China, there would be many people/careers involved in getting the spinach to you. List all of the jobs that you think would be involved in this process:
- 5.) List all of the jobs or steps involved with purchasing spinach from a farmer three miles down the road from our school: