



**Understanding carbon 'food' prints:
Create a food system map and collage**

Objective:

Youth will learn that food plays a role in climate change. They will learn the benefits of a "low carbon" diet (i.e. a local food diet). They will create a food system map and collage to find out how far their food has traveled from field to table.

Overview:

We have a tremendous impact on the environment through the food we eat. The average American meal has traveled more than 2000 miles before it arrives on your plate. We can make a big impact to help stop climate change by committing to eating as locally as possible. A good way to eat local is to start growing as much food as possible in your garden. This activity will highlight how growing vegetables in the garden is cutting down on global carbon emissions.

Activity #1 - Map a chocolate cake!

Time: 2 hours

Materials:

- Chocolate cake ingredients
- Kitchen to bake cake
- Paper-sized maps printed from the computer
- Small stickers
- Rulers
- Pencils

Preparation:

Find a recipe for a chocolate cake.

Go to a local supermarket and find the cake ingredients. If there are different brands available for an ingredient, choose the one that is the most local.

Instructions:

- In the classroom, put all the ingredients out on the table.
- Follow the recipe and make the cake.
- Be sure to save the packaging that everything came in.
- While the cake is baking, take the time to map the chocolate cake to see how far it traveled to your classroom!
- Distribute paper-sized maps of the world and small stickers.

- Locate NY on the map and put a sticker there.
- Talk about each cake ingredient, inspecting the package to find out where it came from.
- Put a sticker on that location.
- Using the ruler, draw a straight line from NY to the place where the ingredient came from.
- Do the same for all the ingredients. By the end, there should be a web of lines connecting to NY from around the world.
- Ask the students how far they think the ingredients traveled. Ask them to make guesses... 100 miles, 1000 miles, 1 million miles?
- Measure the lines and add them up: i.e. 8 inches + 4 inches + 3 inches = Total distance of 15 inches.
- Based on the legend of the map, i.e. 1 inch = 100 miles, calculate that 15 inches = 1500 miles traveled. Discuss how the total carbon “food” print of the cake is 1500 miles of travel. That’s a long way to go!
- Additional questions to ask for each ingredient are:
- What steps did this go through between being picked in the field and sold in the store? List as many as you can think of.
- How do you think this item was transported (Truck, plane, train, etc?)
- How much time do you think it took to get from field to table?
- What resources might have been used in getting it here (topsoil, gasoline, fuel, oil, water, coal, etc..?)
- Is the container recyclable?
- What happens to the waste products from making this?

- It’s now time to eat the chocolate cake and be mindful of how far it traveled your plate!

Activity #2 – Create a local food system collage

Time: 30 mins

Materials:

- Magazines and newspapers with pictures of food, trucks, farms, people, stores, etc..
- Glue, scissors, markers, paper, etc.
- Food items: popcorn, cereal, bread

Instructions:

- Begin by talking about the long adventure that food takes from seed to table (i.e. planting, harvesting, processing, packaging, transporting, etc).
- Ask students to identify what's locally grown in NYS.
- Give each student a food item as a starting point to create their own food system collage.
- Invite them to use the magazines, newspapers, and art materials to illustrate a collage of their local food system.
- After they are finished making the collage, they can share what the different photos mean to them.
- To wrap up the activity, talk about how growing food in your garden or buying from local farms means it doesn't have to be transported as far (by truck, plane, or boat) and how this is good for the climate!

Take it one step further...

If these activities have inspired you to reflect on the food system, try one or all of the following:

- Commit for one week to eat as locally as possible.
- Try mapping the food you eat at home for a week.
- Commit to featuring local foods at the summer end picnic.