

EAT

CAFETERIA CONNECTION

Ask the students to examine the food seasonality poster in the cafeteria in order to identify two root vegetables that grow under the ground. Have the students guess which one takes longer to grow and identify which season the foods are typically harvested. *Answers: Radishes (about 1 month; winter), Carrots (about 3 months; spring)*

LEARN

CLASSROOM ACTIVITY

Objective

Students will understand the different paths that fruits and vegetables can take to get from the farm to their plates.

10 Minute Lesson

Through teacher-guided discussion, students will understand the concept of a carbon footprint. They will learn the impact that trucks and planes have on our environment from transporting the various produce from the farm to the plate.

LIVE

HOME ACTIVITY

Plan a meal to prepare for yourself or your family that includes at least two servings of fruits and vegetables. Decide how you might include seasonal produce in the meal and discuss why you might want to include seasonal produce.

Teacher's Notes

Background

The Nature of Fruits & Vegetables

- Fruits and vegetables grow in many different places such as trees, underground, above ground and on vines.
- The growth of fruit and vegetables depend on the climate where they are grown.
- Just like other plants, all fruits and vegetables have a life cycle, some fruits and vegetables may go through their life cycle in a few months whereas others take a full year to go through their life cycle.
- Many of the fruits and vegetables consumed in schools are not grown locally and thus travel far to get to our plates.
- The further the fruit and/or vegetable needs to travel to get from the farm to our plates, the bigger impact it has on our environment.

10 Minute Lesson

Teacher led discussion about carbon foot printing.

Question #1: Does anyone know what a carbon foot print is?

Answer #1: According to Wikipedia, a carbon footprint is a "measure of the impact human activities have on the environment in terms of the amount of [green house gases](#) produced, measured in units of [carbon dioxide](#)". Carbon dioxide is a greenhouse gas, meaning that it contributes to trapping the sun's energy in the atmosphere. This makes living possible. The two other greenhouse gases, known as carbon dioxide equivalents, are methane and nitrous oxide. Methane is responsible for nearly as much global warming as all other non-CO2 greenhouse gases put together. If the amount of the greenhouse gases in the atmosphere rises it is believed that the Earth's temperature will begin to rise (also known as global warming) and the natural processes which contribute to the stability of the planet's climate will be disrupted, possibly irreversibly. (from www.foodcarbon.co.uk)

Question #2: What would have a smaller carbon foot print, an animal based diet or a plant based diet?

Answer #2: Plant based diet because it generally goes through less processing than an animal based diet. An animal based diet starts with the feeding of an animal, transferring the animal to the slaughterhouse, sending the meat to a factory for processing, then sending the finished product to a distribution center. After purchasing and transferring the food, the food eventually gets to your plate. It is also important to note that the number one source of methane (big contributor to global warming) worldwide is animal agriculture. All of these different steps contribute to the carbon foot print. A plant based diet usually goes through much less processing and therefore would have a smaller footprint.

Question #3: Bonus question: Does anyone know that approximate carbon footprint of a cheeseburger?

Answer #3: According to an editor at worldchanging.com, one burger contributes 6.3 to 6.8 pounds of carbon emissions. The factors that were included in this figure were growing the feed for the cattle for the beef and cheese, growing the produce, storing and transporting all the ingredients, and cooking the cheeseburger. If the average American eats 3 cheeseburgers per week, this is 941-1023 pounds of carbon emissions per person per year. This is roughly the same amount of output from 7,500-15,000 SUVs per year!

Introduce and explain the EAT Cafeteria Connection and LEARN Home Activity to the students.

Optional Enrichment Idea

Have the students calculate their own carbon footprint online. There are many different websites that do this for free. Examples are <http://www.eatlowcarbon.org/#>, www.carbonfootprint.com, www.carbonfund.org. Once the students calculate their carbon footprint, have them discuss and come up with different ways to reduce their footprint. Have the students try to implement at least 2 of the ideas in the classroom.