

LESSON TITLE- Food Miles and ecological footprints

TIME 70 minutes

OVERVIEW The students will use the Google Earth Voyager Stories and see [Chasing a Global Coral Bleaching](#) Event and other sources to understand the effect of carbon footprints and its increasing threat to environment.

SUBJECT/TOPIC: Geography/ Science /Sustainability

AGE LEVEL : 10 to 13 years



Learning Objectives :

1. Students will locate where their food comes from.
2. Students will understand what the term 'food miles' and 'carbon footprints' means.
3. Students will find out why some foods are sourced from abroad.
4. Propose solutions to the environmental and social impacts of global food production.
5. Assess possible solutions, and determine the role of consumers, farmers, retailers and scientists.



Materials Needed

1. LCD
2. Laptop/desktop/mobile
3. Internet Connection
4. Black-board
5. Chalk
6. Student as Volunteer
7. Access to Google Earth.



Lesson Summary

- Engage: Examine how food is transported from one place to another. Define the term 'Food Miles' and 'Carbon Footprint'.
- Explore: Students would visit malls and super markets to gather information about consumer taste and preferences for vegetables and other food items. Examine how locally produced food would help the environment and reduce global warming.
- Explain: Food miles are one factor used when testing the environmental impact of food, such as the carbon footprint of the food. Find out how increase in globalization of food transportation in past few years has impacted the environment.
- Revise: Discuss findings in small groups
- Apply: Identify best strategy for reducing global warming caused due to greenhouse gases released while long distance transporting food items.



Sustainable Development Goals



Culminating Task/Assessment

Use a discussion strategy such as ‘Turn and Talk’ to foster student discussion of the topic ‘The role of consumers, farmers, retailers and scientist’ in finding solution to carbon footprints. Make an analysis of information and represent in a chart or graph



Textbook Chapter [Class 6 NCERT, Science Chapter 1 Food: Where Does it Come From?

Engage (10 minutes)

- Have a short quiz to activate prior knowledge and prepare students for learning new material.

Explore (10 minutes)

- Use Google Earth project “ Food Miles and ecological footprints” to help the students understand the concept better.

Explain (20 minutes)

- Use a discussion strategy and break up groups to find sustainable agriculture methods that can be adopted by the local farmers to make ends meet.

Apply (30 minutes)

1. Ask the students to measure the food items by miles
2. Checking the food odometer : compering the food miles for local versus conventional produce
3. Sustain – Food Miles Project
4. Students should make the connection, when possible, back to the crops. For example, have them consider the peanut butter and jelly sandwich. Have them consider and discuss the possible process that peanuts undergo to become peanut butter (or that berries take to become jelly). This kind of fun and practical pondering will help to reinforce what they have already learned, and allow them to make the crop connection with everyday foods that are real to them.
5. Students can further their understanding of our food system and how plants grow by visiting Kids Farm, a colorful, online resource that introduces children to many different types of farm animals, wild animals, farm equipment, and how certain fruits and vegetables grow. The site features music, activities, and much more.

Evaluate: Exemplar Response and/or Rubric

- Distribute copies of the Steps in the Food System, found on page 92 of the Feeding Minds, Fighting Hunger resource. Have students focus on the illustration. Ask orientation questions like these:
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- What do you see in the picture?
- What is going on? Who are these people?
- What are the different men doing?
- What kinds of things do you think are being grown?
- What is the man doing on the field at the bottom of the picture?
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- (Encourage students to elaborate on their responses.)

Credits

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