



LESSON PLAN: Introduction to Healthy Food Systems
Virtual Field Trip to Del Rey Avocado

Grade Level: 6 to 12

Introduction: This virtual field trip to Del Rey Avocado allows viewers to see an example of a working local farm that acts to reduce its environmental footprint and give back to the community. This video can be used in the classroom as an introductory springboard for discussions about Food Systems, organic vs. conventional agriculture, land use, career explorations, plant science, and more. We have also developed two activities that introduce Food Systems that can be incorporated into Google Slides presentations.

NGSS Performance Expectation:

MS-ESS3-3 Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

HS-ESS3-4 Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

Materials:

Computer with internet access

Link to Video, Del Rey Avocado

<https://vimeo.com/468017375>

Link to Google Slides

[Del Rey Video Viewing Guide](#)

[From Farm to Table Part 1 - Bringing Food to Families](#)

[From Farm to Table Part 2 - Moving Food Mindfully](#)

Video Outline (Total Length 6:54 minutes)

| | |
|-----------|--|
| 0:00-0:55 | Introduction by SDAITC President Diana Bergman |
| 0:56-2:00 | History of Del Rey Avocado by Jessica Hunter, VP of Operations |
| 2:00-2:30 | How did Jessica get involved? |
| 2:30-2:56 | When and how did Del Rey Avocado create its organic line |
| 2:57-4:01 | Impact of Agriculture on the Community |
| 4:02-5:15 | Helping the Environment |
| 5:15-6:11 | How avocados form and are harvested |
| 6:12-6:54 | Thank you and Conclusion |

Suggested Instructions for use:

1. **ENGAGE:** Display the following photo (feel free to cut and paste onto a computer screen). Ask the students, “What is happening in this photo, and where do you think it was taken?”

Accept all answers. After students have had some time to examine and offer observations/answers (and if they did not notice earlier), note the slight pattern of the trees and the presence of the road in the foreground.

Basically these are not just “a bunch of trees”, but rather one of many farms and orchards along Highway 15, north of Escondido. If you see plants in rows, humans put them there. When you drive up toward Temecula, just look out the window to see several North County farms, mostly growing avocados and landscaping plants.



2. **EXPLORE:** Explain to students that they will be “visiting” a local avocado farm through a virtual field trip. This video will help them understand the role of farming in our community, and how farms interact with the rest of the community to bring us something we really love to eat - avocados!
3. Have students watch the video as a group or on their own time, complete the Del Rey Avocado Viewing Guide Questions, and the *From Farm to Table (Part 1) - Bringing Food to Families* worksheet.
4. **EXPLAIN:** As a class, discuss the answers to the Video Viewing Guide Questions.
5. **EXPAND:** After the discussion, have students divide into pairs or small groups to brainstorm ways that farmers can do their work in a more environmentally efficient manner. Have them complete the worksheet, *From Farm to Table (Part 2) - Moving Food Mindfully*. Answers can be brainstormed but also found in the video. Discuss answers as a class before moving on to the Evaluation.
6. **EVALUATE:** Assign the Evaluation Writing Prompt to evaluate student engagement and learning. Suggest students use some of their answers from *Moving Food Mindfully* as they write their paragraphs for Evaluation.

Video Viewing Guide Questions:

1. In what part of San Diego County are you likely to find avocado farms, like Jessica's?
2. In what ways does Jessica help the family farm, even though she isn't directly working the land?
3. What are 3 benefits to having farms in your local community?
4. What are 3 ways that farmers can operate in a more environmentally friendly manner?
5. During which months are California avocados usually harvested?


Key to expected answers:






1. Del Rey Avocado is near Fallbrook in northern San Diego County. Farms are generally found in the rural northern and eastern parts of the county, but can even be found in the urban centers.
2. Jessica is the Vice President of Production for Del Rey Avocado. Her duties include all the business aspects of running an organic avocado orchard, like working with buyers, educating people about their organic practices, and managing the field staff.
3. Benefits of having farms in your local community:
 - a. Oxygen production from trees!
 - b. Local jobs
 - c. Locally grown food
 - d. Others not mentioned in video - Country aesthetic (trees are pretty and allow people to feel more spread out from each other). Fire buffer between natural and rural populations. More info can be found at <https://www.sdfarmbureau.org/san-diego-agriculture/>.
4. Ways that farmers can operate in a more environmentally friendly manner
 - a. Use solar power and use all their utilities more efficiently.
 - b. Be water wise - Del Rey uses electronic monitoring and targeted drip irrigation
 - c. Use organic growing practices
5. Local Del Rey Avocados are harvested from February to August. The trees bloom in Spring but fruit is harvested from February to August of the next year. Avocados can spend 12-18 months on the tree!

Part 1 - Introducing the Steps of the Food System

The purpose of this exercise is to familiarize students with the names of general steps in a simple food system. It helps to build a common vocabulary for future discussions. Using the Google Slide, *From Farm to Table (Part 1) - Bringing Food to Families*, students click and drag the title of each step of the food system to the appropriate place in the graphic.

Answers:

| | | |
|--------|---|-------------------------------------|
| Farmer |  | The produce is grown and harvested. |
|--------|---|-------------------------------------|

| | | |
|-----------------------|---|---|
| Transport |  | Produce is taken from one step of the food system to another. |
| Processing Factory |  | Produce gets washed, sorted, labeled, and packed. Sometimes it gets cut up and used in a prepared food. |
| Marketing/Advertising |  | The food gets an attractive label, or a commercial is created to promote it. |
| Grocery Store |  | Several kinds of produce are collected in one place for ease of purchase. |
| Consumer |  | The produce gets prepared and eaten! |
| Landfill or Compost |  | Scraps, cores, peels, etc. are disposed of or made into compost. |

Part 2 - Building Efficiency into Food Systems

After students have viewed the Del Rey Avocado video, assign the Google Slide, *From Farm to Table (Part 2) - Moving Food Mindfully*. Have students draw from what they learned in the video or independently brainstorm ideas with which people can reduce waste at each step of the food system. As a class, discuss each step and any ways that students came up with to increase efficiency and reduce waste.

Potential answers below:

Farmer

- Grow Organic and near population centers
- Drip irrigation and moisture sensors to monitor water use in the field or orchard.

Transport

- Drive fuel efficient vehicles

Packing House/Processing Factory

- Use boxes made with recycled cardboard
- Solar power to run machines and energy efficient buildings

Marketing/ Advertising

- Promote fruit and vegetable consumption
- Educate the public about the importance of agriculture

Grocery Store

- Find ways to use “ugly” produce so less goes to waste
- Stock locally grown ag products, and spotlight them in the stores

Consumer

- Learn how to eat in season and prepare fresh fruit and vegetables
- Compost at home so less organic waste fills up landfills.

Landfill or Compost

Fuel efficient vehicles
Restaurant compost pick up program

Evaluation Writing Prompt

To summarize your learning...

“Select a fruit or vegetable* you enjoy eating. Write a paragraph where you envision an environmentally efficient food system through which you can access that food. You may need to do some internet research to create your vision.”

(*Note: It is easier to focus on one produce item rather than a prepared food with multiple ingredients. Foods with multiple ingredients can be suggested for older students.)

Useful Extension Materials

More information about Organic Growing Principles

<https://www.sare.org/publications/transitioning-to-organic-production/what-is-organic-farming/>

San Diego County Agricultural Statistics

<https://www.sandiegocounty.gov/content/sdc/awm.html>

More Information about Food Systems, and a really good in depth general Food Systems curriculum

<https://www.foodspan.org/>

A helpful video for creating Drag-and-drop google slides

<https://www.youtube.com/watch?v=-byn2YTVeWU>

Avocado Jokes, hahaha

What is an avocado's favourite type of music?

Guac and roll.

What do you say when the guacamole is ready?

Chip, chip, hooray!

What do you say when the guacamole tastes perfect?

Bravocado.

Do you have other ideas for how to incorporate this video into classroom learning? Please send an email to SanDiegoAITC@gmail.com!