

Lesson Name: HORT Vocab Race	Grade Level: 6 th -9 th
Paired Video: Coffee Crop Chat: Ryan Contreras 11 Minutes	Approximate Length: 30-45 minutes
Stage 1 – Desired Results	
Description: In the video featuring Ryan Contreras, an Ornamental Plant Breeding Professor at Oregon State University, students will learn about the plant nursery, greenhouse, and specialty crops sectors of Oregon’s agriculture along with potential job opportunities within them.	
Established Goals: 1. Students will define 10 horticultural related vocabulary words. 2. Students will determine the correct vocabulary word when offered the description. 3. Students will summarize the Coffee Crop Chat Video through guided notes.	
Stage 2 – Assessment Evidence	
Performance Tasks: Students will first follow along through the video by using the provided guided notes. Once finished, students will then work in teams to research and write down the definitions of 10 vocabulary words from the video. Finally, students will practice their vocabulary knowledge through a race where they will be given a definition by the teacher, and they must correctly select the vocab word it belongs to.	Assessment: As students participate in the race, the teacher can analyze how quickly students are choosing the correct answer, if they are choosing the correct answer, and how much they are having to rely on their notes and teammates for assistance. At the end of class, reflect in a group discussion by asking students one new fact they learned from the video or race.
Stage 3 – Learning Plan	
Learning Activities/ Directions: Ryan Contreras Coffee Crop Chats: (15 Minutes) <i>turn in for complete/incomplete grade</i> - Hand out guided notes and definitions page to each student • Explain to students they will be filling in the blanks/answering questions as the watch the video • Note: Pause as needed to help students catch up if needed Definition Research: (10 Minutes) - Once the video has ended, give students about 10 minutes to research definitions of the vocabulary words in teams of two. - As students are researching, write each of the 10 vocabulary words spaced out on a white board at the front of the class. HORT Vocab Relay: (10-15 Minutes) - Split the class into two sides and explain the following rules and instructions.	

- You will be reading off the definitions of the vocabulary words the students researched in class. It is their job to determine a runner for each round. The runner will be tasked with running up to the board and selecting the correct vocabulary word based on the definition you read that round. If incorrect, the other team earns a point. If correct, their team earns a point. Most points at the end, wins. However, each student from each team must compete before a runner can go twice. Teammates are allowed to assist their classmates by telling them the correct vocabulary word and students are allowed to use their own notes.
- Optional: Give the runners flyswatters to use in selecting the correct vocabulary word on the board. This helps lengthen their reach and keep from collusions at the board.

Reflection: (5 Minutes)

- Ask students to reflect at the end of class about one new fact they learned through either the video or race game in class. Ask for a couple class share-outs.

Materials Needed

- Projector to show video in class
- Guided notes and definition page
- Pencil/writing utensils
- White board to write definitions on
- Expo markers
- Flyswatters (optional)
- Chromebooks/iPad/dictionaries/student device to research definitions on

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Guided Notes for Coffee Crop Chats
Video: Ryan Contreras & Greenhouse/Nursery Knowledge

1. Mr. Contreras is a professor of _____.
 2. Circle the correct answer: Mr. Contreras grew up:
 - a. Working at a restaurant
 - b. Working on a farm
 - c. Working at a fruit stand
 3. After his first independent study project, Mr. Contreras stayed on to study _____ genetics.
 4. Circle the correct answer: If you visited Oregon, Georgia, North Carolina, and Massachusetts, would you see the same types of plants at a plant nursery in each location?
 - a. Yes
 - b. No
 5. Why is Western Oregon unique in what it can grow?
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6. Circle the correct answer: Oregon is what number in the nation for nursery crops?
 - a. 1st
 - b. 2nd
 - c. 3rd
 - d. 4th
 - e. 5th
 7. _____ percent of nursery crops grown in Oregon are shipped out of state.
 8. Mr. Contreras believes any student who is interested in nursery or greenhouse careers should:
 - a. Go to work at a nursery
 - b. Take every biology class available at their school
 - c. Join their school's track team
 9. It used to take around 15 years to climb from an entry level position in a plant nursery to middle management, but students are now seeing this advancement in around _____ years.
 10. Nursery and greenhouse are the _____ AG sector and make over _____ billion dollars.
 11. Name two types of jobs within nursery and specialty crops:
_____ and _____.
 12. Would you be interested in a plant nursery, greenhouse, or specialty crop related field?
 - a. Yes
 - b. No

Definitions to Research

1. Ornamental Plants: _____

2. Plant Nursery: _____

3. Plant Breeder: _____

4. Monocrop: _____

5. Temperate Zone: _____

6. Hardiness Zone: _____

7. Plant Propagation: _____

8. Specialty Crops: _____

9. Farm Gate Value: _____

10. Horticulture: _____

Definitions TEACHER ANSWER SHEET

1. Ornamental Plants: These are grown for the beauty and use in landscapes.
2. Plant Nursery: A place where plants are propagated and grown to a desired size.
3. Plant Breeder: A scientist who assists in the development of new plant varieties.
4. Monocrop: A crop that is planted in the same field each year with no crop rotation.
5. Temperate Zone: The middle latitudes which span between the tropics and the polar regions of Earth.
6. Hardiness Zone: A geographic area defined as having a certain average annual minimum temperature, a factor relevant to the survival of many plants.
7. Plant Propagation: The breeding of a plant by natural processes from the parent stock.
8. Specialty Crops: These are defined as fruits and vegetables, tree nuts, dried fruits, and horticulture and nursery crops, including floriculture.
9. Farm Gate Value: The market value of a product minus the selling costs (transport costs, marketing costs).
10. Horticulture: The science and art of the development, sustainable production, marketing and use of high-value, intensively cultivated food and ornamental plants.