

Lesson Title: What is Sustainable Horticulture?

Grade Level: 9-12

Subject Area: Horticulture

Duration: *90 minutes, over two class periods or one block*

Standards Addressed: CTE Agriculture and Natural Resource Standards C2.1, G9.2

Activity/Lesson Objectives:

- Students will distinguish between sustainable and non-sustainable horticulture practices.
- Students will investigate and identify sustainable practices used in horticulture businesses.
- Students will explain the benefits of implementing sustainable horticulture practices.

Engagement Activity: Sustainable vs. Non-Sustainable Practices (10 minutes)

Materials:

- [What is Sustainable Horticulture? Google Slides Presentation](#) (slides 2-12)

Procedure:

1. Begin by introducing the topic: *"Every day, we make choices that impact ourselves, others, and the environment we live in. Some of these choices are sustainable, meaning they support long-term balance and health, while others are not."*
2. Explain the concepts of sustainable and non-sustainable practices, using a few relatable examples to set the context (for example, cramming for a test versus studying a little each day, or using reusable containers instead of single-use packaging). Then, show the video "What is Sustainability" from the slide deck (slide 2) to reinforce these ideas and set the context for the lesson.
3. After the video, continue with the remaining slides (slides 3-12). Display each image one at a time. Ask students to observe the image and consider whether the practice shown is sustainable or not.
4. Encourage students to share their answers aloud or use a show of hands to indicate their opinion. Alternatively, use digital polling tools for more interaction.
5. After each image, briefly explain the correct classification (sustainable or non-sustainable) and the reasoning behind it.
6. Conclude the activity with a discussion about how understanding these practices can guide better decision-making in horticulture.

Explore: Sustainable Horticulture Businesses Case Studies (30 minutes)

Materials:

- Laptop or tablet

- [Sustainable Horticulture Case Study Worksheet](#)
- [Horticulture Businesses For Case Study Research](#) (instructor)

Guiding Questions:

- What does sustainability mean in the context of horticulture?
- How do horticulturists produce plants and products in a way that is sustainable for the environment?

Procedure:

1. Begin by introducing the activity: *“Today we’re going to take a closer look at real horticulture businesses and how they use sustainable practices in their daily operations. Each student (or group) will be assigned a specific business to research. Your job is to explore their website and any other online sources to find out what steps they’re taking to care for the environment while running a successful business.”*
2. Assign each student or group a specific [horticulture business](#) to research.
3. Instruct students to use the internet to explore the business’s website and other available online resources to gather information about the sustainable practices they use.
4. Have students answer the questions and complete the activities listed on the [Sustainable Horticulture Case Study Worksheet](#) based on their findings.
5. After the activity, facilitate a brief class discussion where students share their findings, including the sustainable practices they discovered.

Explain: What is Sustainable Horticulture? Presentation (35 minutes)

Materials:

- [What is Sustainable Horticulture? Google Slides Presentation](#)
- [What is Sustainable Horticulture? Guided Notes](#)

Procedure:

1. Begin by reviewing the slideshow and ensuring familiarity with the content. Hand out the guided notes to each student.
2. As you present each slide, pause periodically to allow students to fill in their guided notes. Highlight key points, provide additional context, and encourage student interaction by asking questions or prompting discussion.
3. At the end of the slideshow, review the key concepts covered in the presentation. Go over the notes with the class, ensuring that students have accurately filled in their guided notes.

5. Evaluate: Spot Sustainable Change (15 minutes)

Procedure:

1. Introduce the task: *“Let’s take a few minutes to think like sustainable horticulturists. Look around campus—where do you see an opportunity to care for the environment better*

through plants, soil, or water use? Is there an area that could be more water-efficient, healthier for plants, or more supportive of wildlife?"

2. Ask students to choose one location and consider:
 - What's happening in that space now?
 - What sustainable practice could help?
 - Why would that change be good for the environment or the school?
3. Give students time to go outside and observe. Encourage them to take notes or photos if helpful.
4. After returning to the classroom, students can share their ideas through a group discussion or by writing a brief reflection summarizing their observations and explaining why the sustainable change they propose would be helpful.

Criteria for Success:

- Students identify a specific area on campus.
- Students propose a sustainable change (e.g., mulch, native plants, less water use).
- Students explain why their suggestion would make a positive impact.