Floricuture II/ Floral Design

Content Area: **Science**
Course(s): **Horticulture II**
Time Period: **January**
Length: **60**
Status: **Published**

Unit Overview

"Floriculture" Industry is defined as: Cut Flowers, Flowering House Plants, Greens/Foliage, Bedding Plants, Artificial/Dried

Enduring Understandings

- . Foliage plants are used to improve the appearance of interior spaces, which is a practice known as interior plantscaping

- . Interior plantscaping is the selection, installation, and maintenance of plants to improve and enhance the indoor environment.

- Cold water on the leaves causes enzymes to coagulate, creating unsightly white spots on the leaves.

- Foliage plants can be grown successfully indoors by following a few simple guidelines.

- Kalanchoes are short-day plants.

- Rooted florist azalea cuttings are pinched four to five times over a two-year period to encourage branching

- Thanksgiving and Christmas cacti initiate flower bud development at 55°F nights while Easter cactus initiate flower bud development when given 47 to 53°F nights.

- The majority of commercial hydroponic operations produce vegetables and herbs. Top crops are lettuce, spinach, tomatoes, cucumbers, green peppers, melons, snap beans, squash, and eggplant. Basil is the most widely grown herb.

- To flower, a flower bud dormancy mechanism must be satisfied. A treatment of 10 to 12 weeks at 40°F is recommended.

- Tropical or subtropical plants selected for the ability to be grown indoors are referred to as foliage plants.

Essential Questions

- : What are holiday cacti and their cultural requirements for production?

- How do plant selection and design principles apply to interior plantscaping?

- What are African violets and their cultural requirements for production?

- What are Cyclamen and their cultural requirements for production?

- What are Kalanchoes and their cultural requirements for production?

- What are some common tasks associated with plant maintenance?

- What are some installation considerations and irrigation methods used with interior plantscapes?

- What are some problems associated with plants installed in the interiors of buildings?

- What are some safety concerns associated with interior plantscaping?

- What cultural practices are used in commercial foliage plant production?

- What is involved in the production of hydroponically grown foods?

- What is the importance and scope of the foliage plant industry?

- What practices should be followed in the care of foliage plants?

- Why is acclimatization important to plants used in interior plantscapes?

Standards/ Indicators/Student Learning Objectives (SLOs)

Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:

1 Explain the basic requirements of cut flowers.

2 Understand the causes of deterioration and death of flowers.

3 Describe the steps of effective conditioning of flowers and foliage.

4 Explain the importance of using floral preservatives.

5 Examine commercial packing and shipping.

6. Identify cutting tools used in floral design.

7. Recognize floral design supplies for centerpieces, sprays, and vase arrangements.

8. Describe floral design supplies for corsages, bouquets, and boutonnieres.

9.3.12.AG	Agriculture, Food & Natural Resources
9.3.12.AG.1	Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster.
9.3.12.AG.2	Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy.
9.3.12.AG.3	Examine and summarize the importance of health, safety and environmental management systems in AFNR businesses.
VPA.1.1.12	All students will demonstrate an understanding of the elements and principles that govern the creation of works of art in dance, music, theatre, and visual art.
VPA.1.1.12.D	Visual Art
VPA.1.1.12.D.1	Distinguish innovative applications of the elements of art and principles of design in visual artworks from diverse cultural perspectives and identify specific cross-cultural themes.
VPA.1.1.12.D.CS1	Common themes exist in artwork from a variety of cultures across time and are communicated through metaphor, symbolism, and allegory.
VPA.1.2.12.A	History of the Arts and Culture
9-12.HS-LS2-1.3	Scale, Proportion, and Quantity
9-12.HS-LS1-4.LS1.B	Growth and Development of Organisms
CAEP.9.2.12.C	Career Preparation

CAEP.9.2.12.C.1	Review career goals and determine steps necessary for attainment.
CAEP.9.2.12.C.3	Identify transferable career skills and design alternate career plans.
CAEP.9.2.12.C.4	Analyze how economic conditions and societal changes influence employment trends and future education.
CAEP.9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures.
CAEP.9.2.12.C.6	Investigate entrepreneurship opportunities as options for career planning and identify the knowledge, skills, abilities, and resources required for owning and managing a business.
CAEP.9.2.12.C.9	Analyze the correlation between personal and financial behavior and employability.

Lesson Titles

- Caring for Fresh Flowers and Foliage
- Identifying Floral Design Tools and Supplies
- Understanding the Principles of Floral Design
- Designing Basic Floral Work

Career Readiness, Life Literacies, & Key Skills

TECH.9.4.12.CI	Creativity and Innovation
TECH.9.4.12.CI.1	Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a).
TECH.9.4.12.CI.2	Identify career pathways that highlight personal talents, skills, and abilities (e.g., 1.4.12prof.CR2b, 2.2.12.LF.8).
TECH.9.4.12.CI.3	Investigate new challenges and opportunities for personal growth, advancement, and transition (e.g., 2.1.12.PGD.1).
TECH.9.4.12.CT	Critical Thinking and Problem-solving
TECH.9.4.12.CT.1	Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).
	Innovative ideas or innovation can lead to career opportunities.
	Collaboration with individuals with diverse experiences can aid in the problem-solving process, particularly for global issues where diverse solutions are needed.
	With a growth mindset, failure is an important part of success.

Inter-Disciplinary Connections

- 10. English Language Arts

- 10.8.12. Science and Technical Subjects: 9-12

- 10.8.12.SC12. Science and Technical Subjects: 11-12

- 10.8.12.SC12.1. Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.

- English   11-12.RST.1.3

- National AFNR Standards PS.03.02.03a, PS.03.02.03b, PS.03.02.04a, PS.03.02.04b, PS.03.02.04c

- RST.11-12.1. Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.

- RST.11-12.2. Determine the central ideas, themes, or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.

- RST.11-12.3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

Equity Considerations

Asian American Pacific Islander Mandate

Topic: Farming demographics in the US

Materials Used: https://www.fs.usda.gov/inside-fs/mail-call/usda-connecting-and-healing-asian-american-native-hawaiian-and-pacific-islander

Addresses the Following Component of the Mandate:

- Economic
- Political
- Social

Climate Change

Topic: How Climate Change is impacting agriculture

Materials Used: https://www.epa.gov/agriculture/agriculture-and-climate

Addresses the Following Component of the Mandate:

- Economic
- Political
- Social

Holocaust Mandate

Topic: Empowering female farmers

Materials Used: https://www.nationalgeographic.com/culture/article/partner-content-empowering-female-farmers

Addresses the Following Component of the Mandate:

- Bias
- Bigotry
- Bullying
- Holocaust Studies
- Prejudice

LGBTQ and Disabilities Mandate

Topic: How agriculture celebrates all people

Materials Used: https://www.cultivatingchangefoundation.org/

Addresses the Following Component of the Mandate:

- Economic
- Political
- Social

Instructional Strategies, Learning Activities, and Levels of Blooms/DOK

Activities

- Philadelphia Flower Show

- NJ State Horticultural Expo
- Student Compete in (CDE)
- Greenhouse Aquaponic
- Greenhouse Hydroponics
- FFA Convention
- SAE Presentations

- acronyms
- conferencing
- effective questioning
- Partner Project/Activity
- Teacher Lecture/Notes
- Caring for fresh cut flowers
- Cooperative Learning
- Delsea one tutoring
- Drill and Practice
- Floral Designing
- Guided Practice
- Individual project
- inquiry based learning
- Online tutoring
- Projects
- Small group activity
- Taking floral orders
- Teacher Modeled Instructions
- Teacher provided activity

Modifications

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ELL Modifications

- Choice of test format (multiple-choice, essay, true-false)
- Continue practicing vocabulary
- Provide study guides prior to tests
- Read directions to the student

- Read test passages aloud (for comprehension assessment)
- Vary test formats

504 and IEP Accommodations & Modifications

- Allow for redos/retakes
- Assign fewer problems at one time (e.g., assign only odds or evens)
- Differentiated center-based small group instruction
- Extra time on assessments
- Highlight key directions
- If a manipulative is used during instruction, allow its use on a test
- Opportunities for cooperative partner work
- Provide reteach pages if necessary
- Provide several ways to solve a problem if possible
- Provide visual aids and anchor charts
- Test in alternative site
- Tiered lessons and assignments
- Use of a graphic organizer
- Use of concrete materials and objects (manipulatives)
- Use of word processor

Gifted and Talented

- Alternate assignments/enrichment assignments   .
- Enrichment projects   .
- Extension activities   .
- Higher-level cooperative learning activities   .
- Pairing direct instruction with coaching to promote self-directed learning   .
- Provide higher-order questioning and discussion opportunities   .
- Provide texts at a higher reading level   .
- Tiered assignments   .
- Tiered centers   .

- Choice of test format (multiple-choice, essay, true-false)
- Continue practicing vocabulary
- Provide study guides prior to tests
- Read directions to the student
- Read test passages aloud (for comprehension assessment)
- Vary test formats
- Additional time for assignments
- Adjusted assignment timelines
- Agenda book and checklists
- Answers to be dictated
- Assistance in maintaining uncluttered space
- Books on tape
- Concrete examples
- Extra visual and verbal cues and prompts
- Follow a routine/schedule
- Graphic organizers
- Have students restate information
- No penalty for spelling errors or sloppy handwriting
- Peer or scribe note-taking
- Personalized examples
- Preferential seating
- Provision of notes or outlines
- Reduction of distractions
- Review of directions
- Review sessions
- Space for movement or breaks
- Support auditory presentations with visuals
- Teach time management skills
- Use of a study carrel
- Use of mnemonics
- Varied reinforcement procedures
- Work in progress check

Formative Assessment

- Group Work
- Class Discussion
- Closure
- Guided Practice
- Oral Respones/Question
- Performance Assessments
- Teacher Observation
- Warm up

Benchmark

Benchmark Assessments:
Skills-based assessment
Reading response
Writing prompt
Lab practical

Alternative Assessments

Alternative assessments:
Performance tasks
Project-based assignments
Problem-based assignments

Presentations
Reflective pieces
Concept maps
Case-based scenarios
Portfolios

Summative Assessment

- Bench Mark

- MPA

- Performance

- Test/Quiz

- Unit Assessments

Resources & Materials

- Aged.org

- FFA.Org

- Internet

- MyCaert.com

- Powerpoint Presentations

- Smartboard

- Video Streaming

Technology

TECH.8.1.12	Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
TECH.8.1.12.A	Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.
TECH.8.1.12.A.3	Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue.
TECH.8.1.12.A.CS2	Select and use applications effectively and productively.
TECH.8.1.12.B.CS1	Apply existing knowledge to generate new ideas, products, or processes.
TECH.8.1.12.B.CS2	Create original works as a means of personal or group expression.
TECH.8.1.12.C.CS3	Develop cultural understanding and global awareness by engaging with learners of other cultures.