# **Unit 2: Landscape Design**

Content Area: CTE

Course(s): Horticulture III

Time Period: October Length: 60

Status: **Published** 

#### **Unit Overview**

Distinguish the major areas of a residential landscape

Landscape designers, also known as landscape architects, manipulate natural, living elements in commercial and public areas including gardens and parks

## **Enduring Understandings**

• The usefulness of a residential landscape is often a result of dividing a lot into separate areas. Each area has its own function and is designed differently to meet the needs of the client. Three major areas of a residential landscape are the public area, the outdoor living area, and the service area.

## **Essential Questions**

- How are plants drawn on a landscape plan
- How are the principles of design applied to the landscape
- · How can activities be organized into goose egg plans
- How does a designer determine what a client needs and desires for his or her yard?
- How is a cost estimate prepared for a landscape plan?
- How is a landscape plan labeled
- How should trees be located in a landscape plan
- · What are the elements of design
- What are the major areas of a residential landscape
- What are the requirements of starting a landscape business?
- What are the segments of the landscape industry?
- What is the difference between an estimate and a bid?
- What skills are needed to manage a landscape business?

# Standards/Indicators/Student Learning Objectives (SLOs)

- Determine the client's needs and desires
- Demonstrate the proper use of drafting equipment.
- Create a base plan
- Prepare a site analysis plan

- Examine the elements of design
- Apply the principles of design to the landscape
- Organize landscape activities using goose egg plans
- Develop bed patterns for a landscape
- Locate trees in a landscape plan
- Define the categories of landscape plants
- Explain why plant names are important
- Evaluate the selection of plant materials for the landscape
- Distinguish the major areas of a residential landscape
- Assess design guidelines for the public area
- Explain aspects of outdoor living area design
- Describe the functions of a service area

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.
9.3.12.AG.4	Demonstrate stewardship of natural resources in AFNR activities.
9.3.12.AG.5	Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways.
9.3.12.AG.6	Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.
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.

## **Lesson Titles**

- Analyzing the Residential Landscape
- · Applying the Principles of Art to the Landscape
- Beginning the Design Process
- · Choosing Plants for the Landscape
- Designing the Landscape Area
- Managing the Landscape Business
- Pricing the Plan
- Putting the Plans on Paper
- Using Annual and Perennials in the Landscape

### Career Readiness, Life Literacies, & Key Skills

- CRP10. Plan education and career paths aligned to personal goals
- · CRP11. Use technology to enhance productivity
- CRP12. Work productively in teams while using cultural global competence
- · CRP2. Apply appropriate academic and technical skills
- CRP3. Attend to personal health and financial well-being
- · CRP4. Communicate clearly and effectively and with reason
- CRP5. Consider the environmental, social and economic impacts of decisions
- CRP7. Employ valid and reliable research strategies
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them
- CRP9. Model integrity, ethical leadership and effective management

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.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).

## **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.SC12.7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
- 10.8.12. Science and Technical Subjects: 9-12
- 10.8.12.SC12. Science and Technical Subjects: 11-12
- 10.8.12.SC12.7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
- 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.

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

- Philadelphia Flower Show
- NJ State Horticultural Expo
- Student Compete in (CDE)

- Greenhouse Aquaponic
- Greenhouse Hydroponics
- acronyms
- conferencing
- · Asssess design guidelines for the public area
- cooperative learning
- Create a Bubble graph
- Designing Residential and commercial Landscapes
- Designing with Prolandscape software
- Field Trips
- Landscape Design Presentation
- Landscaping Maintenance of Greenhouse grounds and courtyard
- modeling
- Participate in CDE'S Career Development Events
- · Participating in CSA
- Partner Project/Activity
- Propagating plants
- Watering plants

#### **Diversity**

#### **Climate Mandate**

Topic: Farming opportunities in sustainable agriculture

Materials Used: https://sustainableagriculture.net/our-work/issues/farming-opportunities/

#### **Holocaust Mandate**

Topic: Gender equality and sustainable agriculture

Materials Used: https://www.ifpri.org/blog/achieving-agricultural-sustainability-depends-gender-equality

Asian American Islander Mandate
Topic: Programs and opportunities for AAPI individuals in agriculture
Materials Used:
https://www.nrcs.usda.gov/wps/portal/nrcs/detail/me/about/outreach/sep/?cid=nrcs141p2_003242
Avenue de di Marco de Ar
Amastad Mandate
Closure
Google Survey
Kahoot
Lesson Summary
• Quizlet
Modifications
-
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

Vary test formats

Read test passages aloud (for comprehension assessment)

#### **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

#### **At Risk**

- 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**

- Class Discussion
- Group Work
- Guided Practice
- Oral Response
- Performance Assessment
- Teacher Observation
- Warm up

#### **Benchmark Assessments**

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

# **Alternative Assessment**

Alternative assessments:

Performance tasks

Project-based assignments

Problem-based assignments

**Presentations** 

Reflective pieces

Concept maps

Case-based scenarios

**Portfolios** 

#### **Summative Assessment**

- MPA
- Performance
- Unit Assessment

#### **Resources and Materials**

- Internet
- Selected News-Source Sites (Current Events)
- Smart Board
- Teacher's Supplemental Website
- Unit Specific Power Point Presentation
- United Streaming (Related Videos)
- 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.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.

TECH.8.1.12.A.5	Create a report from a relational database consisting of at least two tables and describe the process, and explain the report results.
TECH.8.1.12.A.CS1	Understand and use technology systems.
TECH.8.1.12.C.CS3	Develop cultural understanding and global awareness by engaging with learners of other cultures.
TECH.8.1.12.C.CS4	Contribute to project teams to produce original works or solve problems.
TECH.8.1.12.E.CS3	Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.
TECH.8.1.12.E.CS4	Process data and report results.
TECH.8.2.12.A.1	Propose an innovation to meet future demands supported by an analysis of the potential full costs, benefits, trade-offs and risks, related to the use of the innovation.