

10th Grade Nursery Landscape CURRICULUM



Grade Level(s): 10

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Course Description: This is an introductory course for students interested in careers within the landscape industry. Topics include an introduction to the landscape industry and careers, plant identification, landscape equipment operation, and introductory landscape design/installation/maintenance.

Year At A Glance

Unit Title	Overarching Essential Question	Overarching Enduring Understanding	<u>Vision of A Learner “I Can” Statements</u>
<u>Intro to Nursery Landscape Industry & Careers</u>	What careers are available in the nursery landscape industry?	There are many aspects of the nursery landscape industry that can match a student’s interests and work preferences. Post secondary education is dependent on the type of position.	TI4(9-12); TCC4(9-12)
<u>Landscape Design</u>	How can the elements and principles of design be applied to enhance the outdoor space?	A well designed landscape can increase the value and usage of an outdoor space. Proper landscape drawing assists in the sales and installation process.	P3(9-12); TCC3(9-12); CCE2(9-12)
<u>Plant Identification</u>	What features can I use to identify plants?	Different plants have different features that identify them during the active growth season and winter.	TI4(9-12)
<u>Landscape Maintenance & Installation</u>	What actions are necessary to properly maintain a landscape?	Landscape maintenance activities include weed removal, watering, mulching, edging, mowing, fertilizing, pruning, and winterization.	TI1(9-12); DE4(9-12)
<u>Landscape Equipment Operation</u>	How do you properly operate mowers, blowers, and weed whackers?	Each piece of equipment has its own dangerous areas.	CCE2(9-12)

Unit 1 - Introduction to the Nursery Landscape Industry & Careers

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- **FPS.05.02.** Examine and choose career opportunities that are matched to personal skills, talents, and career goals in an AFNR pathway of interest.
- **CRP.10.03.** Develop relationships with and assimilate input and/or advice from experts to plan career and personal goals in a chosen career area.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

- TI4(9-12): I can apply my strengths and anticipate challenges to reach my current and future goals.
- TCC4(9-12): I can integrate my learning to adapt to experiences in the classroom, career and life.

Understandings: Students will understand that...

- The nursery landscape industry makes up over half of CT agriculture, with the largest amount of employment opportunities
- Wholesale nurseries produce trees, shrubs, and perennials. Retail nurseries (garden centers) will have annuals and other gardening supplies as well.
- Landscape includes design, installation, maintenance of garden beds, pruning of trees and shrubs, spring & fall clean-up, and lawn care/maintenance
- There are different job opportunities at every level which require various educational requirements

Essential Questions:

- What local nurseries exist in our area?
- What large nursery landscape companies exist in Connecticut?
- Where can I learn about job openings in the landscape industry?
- What educational path do I need to pursue my career interests?

Students will know...

- The differences and similarities between the nursery landscape industry and greenhouse/floriculture industry
- Post-secondary education depends on the role. Positions of leadership/management typically require experience and a 2-4 year degree. Horticultural internships and certificate programs, accompanied by a 2-4 year degree in business, is

Students will be able to...

- Identify nursery landscape businesses in Connecticut and discuss the products/services they sell
- Identify where employment positions can be found
- List internship opportunities in nursery landscape
- Align personal interests and strengths to specific positions in the industry

<p>recommended for those who wish to own or manage a business.</p> <ul style="list-style-type: none"> • Specific job titles, duties, experience/educational requirements, and salaries within the landscape industry • Where and when to find horticultural job opportunities and internships • There are horticulture industry job boards, as well as general boards like Indeed. An active LinkedIn account will allow recruiters to reach out to discuss job openings. Attending industry events/meetings will develop relationships with industry professionals who may have/know of job opportunities. • Setting up job alerts and reading through the job openings will offer information on salaries and duties within different positions. 	
Key Vocabulary: job board, green industry, benefits, salary range, recruiter, CNLA	
Assessment Evidence	
Performance Tasks: <ul style="list-style-type: none"> • Complete self-assessment of attributes, personality type, preferred work environment, salary range based on lifestyle • Job alert/job posting reflection assignment 	Other Evidence: <ul style="list-style-type: none"> • Reflection assignments • Quizzes • Article reviews
Learning Plan	
TI4(9-12); TCC4(9-12) <ul style="list-style-type: none"> • Discuss importance of matching personal characteristics, interests, and work environment preferences to the right job <ul style="list-style-type: none"> ◦ Complete self-assessment assignment • Overview of types of positions in the landscape industry • Review job board postings <ul style="list-style-type: none"> ◦ Create a list of nursery landscape positions of interest • Guest speakers/business tours of local nursery landscape companies 	
Teacher Resources: www.hortjobs.com , www.hirehorticulture.com , www.cnla.biz , indeed.com, longwoodgardens.org, careers.siteone.com, https://www.easternland.com/careers/ , pridescorner.com, https://www.monrovia.com/internship , https://www.yardscapeslandscape.com/summer-internships/	

Unit 2 - Landscape Design

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- **PS.04.01.01.b.** Demonstrate proper use of plants in their environment (e.g. heat tolerant and shade plants in a landscape design, etc.).
- **PS.04.01.01.c.** Create a design plan by selecting plants based on design elements and environmental conditions.
- **PS.04.02.01.c.** Propose suggestions for improvement of a design.
- **CRP.04.02.02.b.** Compose clear and coherent written documents and visuals (e.g., agendas, audio-visuals, drafts, forms, etc.) that are adapted to the audience's needs in both formal and informal settings.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

- P3(9-12): I can accept constructive feedback and use setbacks to adjust my learning journey in order to reach my goals.
- TCC3(9-12): I can integrate relevant information to produce multiple valid solutions.
- CCE2(9-12): I can give and receive actionable and relevant feedback with openness to be able to determine meaningful revisions for success.

Understandings: Students will understand that...

- Soil, sunlight, water availability, and climate must be evaluated to ensure appropriate plant choices and sustainable design outcomes.
- Addressing factors like poor drainage, erosion, or limited access during planning helps ensure functionality, longevity, and customer satisfaction.
- Integrating healthy or valuable existing elements into a new plan supports sustainability, preserves site character, and reduces costs.
- Designing with the end user in mind ensures that the landscape is not only beautiful but also functional, accessible, and aligned with client goals.

Essential Questions:

- How do growing conditions at a site influence plant selection and placement in a landscape design?
- What site-specific challenges must be considered during the design process?
- How can existing plants or features be incorporated into a new design?
- Why is it important to understand how the client plans to use the space?

Students will know...

Students will be able to...

<ul style="list-style-type: none"> Many landscape areas lack a well defined focal area and/or have incorrect focal area set-up. All lines need to lead to/from the focal area. All plant materials should be grouped. Color should be limited to 1-2 colors. The space needs to be designed to meet the use and design preferences of the client. Growing conditions and area challenges will dictate design options. Types of questions to ask a client to determine preferences 	<ul style="list-style-type: none"> Create a landscape design applying the elements and principles of design Create a hand-drawn, plan view landscape design Create a focal area Utilize grouping, repetition, and space to create line that leads to the focal area Select landscape drawing tools to create a plan view drawing Set up a foundation planting design Evaluate a landscape site for growing conditions
Key Vocabulary: Focal area, positive space, negative space, dynamic line, static line, symmetrical, asymmetrical, unity, monochromatic, analogous, complementary, grouping, repetition, scale, proportion, elevation view, plan view, perspective view	
Assessment Evidence	
Performance Tasks: <ul style="list-style-type: none"> Assess images of landscape designs & provide design feedback Site assessment lab Client question assignment Foundation planting design set-up Landscape plan view drawing 	Other Evidence: <ul style="list-style-type: none"> Quizzes
Learning Plan	
P3(9-12); TCC3(9-12); CCE2(9-12) <ul style="list-style-type: none"> Discuss Elements & Principles of Landscape Design <ul style="list-style-type: none"> Image assessment assignments Review growing challenges and other challenges of landscape design areas <ul style="list-style-type: none"> Site Assessment lab Discuss types of landscape clients and common client questions/concerns <ul style="list-style-type: none"> Client question assignment Demonstrate use of landscape drawing tools and methods <ul style="list-style-type: none"> Create landscape plan view drawing 	
Teacher Resources: The AIFD Guide to Floral Design (reference for Elements/Principles of Design)	

Unit 3 - Plant Identification

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- **PS.01.01.01.a** Identify the major structures and functions of plant cells, tissues, and organs.
- **PS.01.01.02.a** Identify the components and their functions of plant systems (e.g., root, shoot, reproductive).
- **PS.01.01.02.b.** Determine the optimal environmental conditions for plant growth.
- **PS.01.03.01.a** Describe how plants are classified (taxonomy) based on shared characteristics.
- **PS.01.03.02.a** Explain the importance of using a scientific classification system.
- **PS.03.01.01.a** Identify and classify plants using common and scientific names.
- **PS.03.01.02.a** Describe distinguishing characteristics of plant varieties and cultivars.
- **ESS.03.01.01.a** Distinguish between native, non-native, and invasive species.
- **ESS.03.01.02.a** Explain the value of native plant species in landscape and environmental systems.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)
 TI4(9-12): I can apply my strengths and anticipate challenges to reach my current and future goals.

Understandings: Students will understand that...

- Leaves, stems, flowers, growth habits, and bark are key traits used to accurately identify plants and understand their characteristics and uses.
- Scientific names provide universal, precise identification, while common names vary by region and can lead to confusion. Both are important for communication in the plant industry.
- Understanding a plant’s origin involves researching its historical growth range, ecological relationships, and human influence on its distribution.
- Plant hardiness depends on cold tolerance, dormancy patterns, and regional climate zones. Selecting appropriate species ensures successful growth and sustainability.

Essential Questions:

- What physical features help identify different types of plants?
- Why do plants have both Latin (scientific) and common names?
- How can you tell if a plant is native to a region or introduced through cultivation?
- What factors determine whether a plant can survive and grow again after winter?

Students will know...

- How native plants differ from cultivars and natives

Students will be able to...

- Identify 30-40 landscape plants by common name and genus

<ul style="list-style-type: none"> • The 3 hardiness zones in Connecticut • Different plants have different features that identify them • Latin names are universal; common names change based on region • True native plants do not have any human breeding interference • The categorization of annual vs perennial changes based on hardiness zones 	<ul style="list-style-type: none"> • Determine if a plant is hardy for a zone • Discuss the importance of using native plants in landscape designs • identify a plant in the active growing and dormant seasons for site analysis prior to a landscape design plan and/or maintenance contract • Use leaf/bud arrangement, bark, lenticels, leaf margins, and other features to identify common landscape plants
Key Vocabulary: opposite, alternate, smooth margin, serrated margin, lenticels, pubescence, leaf scar, woody, herbaceous, deciduous, evergreen, broadleaf evergreen, tree, shrub, perennial, annual, hardiness zone, variety, cultivar, native, nativar	
Assessment Evidence	
Performance Tasks: <ul style="list-style-type: none"> • Organize plant samples into categories • ID practice quizzes 	Other Evidence: <ul style="list-style-type: none"> • ID Quizzes • Article Reviews
Learning Plan	
TI4(9-12) Discussion of Plant ID Terminology & Hardiness Zones Hardiness Zone assignment Native Plant Discussion Articles Plant ID Labs Categorize Plant ID samples ID Quizzes	
Teacher Resources: Manual of Woody Plants by Michael Dirr	

Unit 4 - Landscape Maintenance & Installation

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- PST.01.01.01.a** Identify tools, equipment, and procedures used in construction and maintenance projects.
- PS.01.01.02.a.** Identify the effects of environmental conditions (e.g., air movement, temperature, humidity, etc.) on plant growth.
- PS.01.01.03.c.** Recommend modifications to water for desired plant growth.
- PS.01.04.** Develop and implement a nutrient management and/or fertilizer plan for specific plants or crops.
- PS.03.04.01.a** Identify and describe plant water requirements and apply irrigation practices appropriately.
- PS.03.04.03.a** Describe methods of plant maintenance and perform routine care practices.
- PS.04.02.02.b.** Demonstrate the use of tools used for creating designs.
- CS.01.01.01.a** Identify personal strengths and demonstrate behaviors that promote effective teamwork.
- CRP.09.02** Implement personal management skills to function effectively and efficiently in the workplace (time management, planning, prioritizing, etc)

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)

TI1(9-12): I can implement a realistic plan and adapt when necessary to achieve my goals.

DE4(9-12): I can work respectfully with all members of my community and support the needs of others.

Understandings: Students will understand that...

- Proper planning and material staging increase efficiency, reduce waste, and help ensure installations are completed accurately and on schedule.
- Newly installed landscapes require more frequent, controlled watering to support root establishment, while established landscapes rely on less frequent, deep irrigation to maintain plant health.
- Routine maintenance tasks—such as pruning, mulching, fertilizing, and pest control—are essential for sustaining plant health and visual appeal in residential and commercial landscapes.
- Collaboration, communication, and task coordination are key to

Essential Questions:

- How can materials be organized and laid out to ensure accurate and efficient landscape installation?
- How does irrigation scheduling differ between new and established landscapes?
- What actions are required to properly maintain a healthy and attractive landscape?
- How can effective teamwork contribute to successful landscape installation and maintenance?

<p>completing complex landscape projects efficiently and professionally.</p>	
<p>Students will know...</p> <ul style="list-style-type: none"> • Layout and spacing of plant materials according to a landscape plan • The personal safety and plant health care consequences pertaining to performing landscape maintenance tasks incorrectly. • The tools and equipment needed to perform each landscape maintenance task. • Proper height to cut a lawn based on the season • Factors that determine the frequency in which mowing is needed. • Basic lawn care principles • The placement order and spacing accuracy in which plants are installed determines efficiency and minimizes damage to plant materials. • Frequency of irrigation depends on weather conditions and plant type. • Newly installed plants should not dry out in order to avoid stress. • After the first 2-4 weeks, plants should be watered deeply and less frequently to discourage shallow root systems • Working on a landscape team involves being clear on the role, staying on task, working efficiently and safely, helping other team members when needed, and being observant and detail-oriented. • Landscape maintenance activities include weed removal, watering, mulching, edging, mowing, fertilizing, pruning, and winterization. 	<p>Students will be able to...</p> <ul style="list-style-type: none"> • Work effectively as part of a landscape maintenance/installation crew • Install landscape plants and materials according to a plan • Care for plant materials • Monitor time and properly perform tasks on a landscape installation crew • Select and safely use landscape equipment and tools appropriate for the job • Perform common landscape maintenance activities (weeding, watering, mulching, pruning, edging, mowing, fertilizing, fall/spring clean up, winterization)
<p>Key Vocabulary: mycorrhizae, slow release fertilizer, organic fertilizer, synthetic fertilizer, lopper, hand pruner, spring rake, bow rake</p>	
<p>Assessment Evidence</p>	
<p>Performance Tasks:</p> <ul style="list-style-type: none"> • Landscape Installation Labs 	<p>Other Evidence:</p> <ul style="list-style-type: none"> • Quizzes

<ul style="list-style-type: none"> • Landscape Maintenance Labs 	<ul style="list-style-type: none"> • Article Reviews
<p style="text-align: center;">Learning Plan</p>	
<p>TI1(9-12); DE4(9-12)</p> <ul style="list-style-type: none"> • Discuss & demonstrate edging, fertilizing, and mulching <ul style="list-style-type: none"> ◦ Edging & mulching lab • Discuss and demonstrate pruning <ul style="list-style-type: none"> ◦ Pruning lab • Discuss how to layout and space plant materials in a landscape installation.. <ul style="list-style-type: none"> ◦ Installation Lab. Rubric assessment. • Discuss how to determine water needs <ul style="list-style-type: none"> ◦ Create a watering schedule 	
<p>Teacher Resources: www.gogreenius.com</p> <ul style="list-style-type: none"> • Local landscape company field trips/guest speakers 	

Unit 5 - Landscape Equipment Operation

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

PS.03.04.03.a Describe methods of plant maintenance and perform routine care practices.

FPS.03.04. Use appropriate protective equipment and demonstrate safe and proper use of AFNR tools and equipment.

FPS.03.04.03.b. Demonstrate appropriate operation, storage, and maintenance techniques for AFNR tools and equipment.

PST.02.02. Operate machinery and equipment while observing all safety precautions in AFNR settings.

PST.02.01.01.a Identify safety hazards and demonstrate safe operation of tools and equipment.

PST.02.03.02.a Identify signs of mechanical failure and perform basic troubleshooting.

PST.02.01.02.a Demonstrate the proper use and maintenance of basic landscaping equipment and tools.

Vision of A Learner Attributes: Students will be able to independently use their learning to... ("I can" statements to be demonstrated)
CCE2(9-12): I can give and receive actionable and relevant feedback with openness to be able to determine meaningful revisions for success.

Understandings: Students will understand that...

- Following proper safety protocols prevents injury, reduces equipment damage, and ensures a professional work environment.
- Recognizing early warning signs—such as strange noises, vibrations, or performance issues—helps prevent accidents, minimize downtime, and reduce repair costs.
- Mastering proper operating techniques for power tools ensures efficiency, protects the operator and surroundings, and contributes to high-quality landscaping outcomes.
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Essential Questions:

- What safety procedures must be followed when using different types of landscape equipment?
- What are common signs that landscape equipment may be malfunctioning?
- How do you safely and effectively operate common landscape tools like mowers, blowers, and string trimmers?

Students will know...

- What to check if a piece of equipment is not starting properly
- Each piece of equipment has its own dangerous areas.
- Inspecting equipment prior to use can prevent accidents.

Students will be able to...

- Properly use all of the school lawn mowers, weed whackers, and leaf blowers
- Restraining a weed whacker

<ul style="list-style-type: none"> • Ceasing to use equipment if a piece is damaged or missing is important for safety. Unusual noises should be investigated immediately. 	<ul style="list-style-type: none"> • Refuel the mowers, weed whackers, and blowers • Check the oil level on mowers • Discuss routine maintenance required for the equipment • Start, operate, and shut off equipment
Key Vocabulary: 2 cycle, sulky, choke, throttle, pull cord, EPO (emergency power off) switch	
Assessment Evidence	
Performance Tasks: <ul style="list-style-type: none"> • Mowing Labs 	Other Evidence: <ul style="list-style-type: none"> • Quizzes • Article Reviews
Learning Plan	
CCE2(9-12) Demonstration operation of weed whacker & blower Demonstration how to refuel weed whacker & blower Demonstrate how to restring weed whacker <ul style="list-style-type: none"> • Weed whacking maintenance lab Demonstrate how to use mowers Demonstration how to refill mowers & check oil level <ul style="list-style-type: none"> • Mowing labs Mowing & weed whacking labs	
Teacher Resources: <ul style="list-style-type: none"> • Equipment Owner's Manuals • www.gogreenius.com 	