



Horticulture Science (Proc 17)

PRE-TEST/POST-TEST TEKS BLUEPRINT

Pre-Test/Post-Test Development Overview

TEKS Addressed Selection Process

The Texas Essential Knowledge & Skills (TEKS) included in the course pre-test and post-test were selected for their direct relevance to the course content. This selection process was guided by the goal of assessing learners' understanding of specific topics and skills that are integral to the course. As a result, TEKS related to general employability skills or broader topics were often excluded. This focus ensures that the assessments accurately measure students' mastery of the subject matter, allowing educators to gain a clear insight into areas where students excel or may need additional support. By concentrating on content-specific TEKS, the tests provide a more precise evaluation of the students' knowledge and understanding of the core material.

Test Question Development Process

The questions created for the pre-test and post-test were designed using psychometric principles to ensure they are of high quality and fairness. This approach helps to accurately assess student understanding. These principles guide the development of questions to be reliable, valid, and free from bias, ensuring that they effectively measure the knowledge and skills the students are expected to acquire in the course.

Horticulture Science (Proc 17) TEKS Pre-Test/Post-Test Blueprint

Knowledge & Skills Statement	Student Expectation	iCEV Lesson Title
(2) The student develops a supervised agriculture experience program. The student is expected to:	(A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity	Blue & Gold Experience: SAE Programs
(2) The student develops a supervised agriculture experience program. The student is expected to:	(B) apply proper record-keeping skills as they relate to the supervised agriculture experience	Introduction to Record Keeping
(2) The student develops a supervised agriculture experience program. The student is expected to:	(C) participate in youth leadership opportunities to create a well-rounded experience program	Blue & Gold Experience: Leadership
(2) The student develops a supervised agriculture experience program. The student is expected to:	(D) produce and participate in a local program of activities using a strategic planning process	Blue & Gold Experience: Involvement
(3) The student develops technical skills associated with the management and production of horticultural plants. The student is expected to:	(A) classify horticultural plants based on physiology for taxonomic and other classifications	Scientific Classification & Nomenclature of Plants Horticulture Plant ID: Floral Horticulture Plant ID: Foliage
(3) The student develops technical skills associated with the management and production of horticultural plants. The student is expected to:	(B) manage the horticultural production environment	Potted Plant Production
(3) The student develops technical skills associated with the management and production of horticultural plants. The student is expected to:	(C) propagate and grow horticultural plants	Plant Propagation I Plant Propagation II
(3) The student develops technical skills associated with the management and production of horticultural plants. The student is expected to:	(D) create a design using plants that demonstrates an application of design elements and principles	Floral Design Basics: Principles & Elements
(3) The student develops technical skills associated with the management and production of horticultural plants. The student is expected to:	(E) design and establish landscapes	Landscape Design: Introduction
(3) The student develops technical skills associated with the management and production of horticultural plants. The student is expected to:	(F) describe the processes of fruit, nut, and vegetable production	Fruit & Nut Production Vegetable Production
(3) The student develops technical skills associated with the management and production of horticultural plants. The student is expected to:	(G) demonstrate proper pruning techniques	Advanced Pruning
(4) The student identifies structures and physiological processes used in plant production. The student is expected to:	(A) examine unique plant properties to identify and describe functional differences in plant structures, including roots, stems, flowers, leaves, and fruit	Plant Structures & Functions
(4) The student identifies structures and physiological processes used in plant production. The student is expected to:	(B) differentiate between monocots and dicots and male and female plants	Scientific Classification & Nomenclature of Plants
(4) The student identifies structures and physiological processes used in plant production. The student is expected to:	(C) germinate seeds and transplant seedlings	Fundamental Plant Processes

Horticulture Science (Proc 17) TEKS Pre-Test/Post-Test Blueprint

Knowledge & Skills Statement	Student Expectation	iCEV Lesson Title
(4) The student identifies structures and physiological processes used in plant production. The student is expected to:	(D) demonstrate asexual propagation techniques	Plant Genetics
(5) The student manages and controls common pests of horticultural plants. The student is expected to:	(A) identify common horticultural pests and pathogens	Plant Pests: Chewing Insects Plant Pests: Sucking Insects Plant Pests: Viruses Plant Pests: Bacterial Diseases Plant Pests: Fungal Diseases
(5) The student manages and controls common pests of horticultural plants. The student is expected to:	(B) demonstrate safe practices in selecting, applying, storing, and disposing of chemicals	Pesticides & Herbicides: An Introduction Pesticide Safety: Minimal Risk to the Applicator
(5) The student manages and controls common pests of horticultural plants. The student is expected to:	(C) explain parts of a pesticide label	Pesticide Safety: Minimal Risk to the Applicator
(6) The student demonstrates marketing and management skills used in the operation of horticultural businesses. The student is expected to:	(A) identify and maintain hand and power tools and equipment	Landscape Tools: Use & Safety Power Blower Power Shears
(6) The student demonstrates marketing and management skills used in the operation of horticultural businesses. The student is expected to:	(B) select appropriate tools and equipment	Pruning Roses Budding & Grafting
(6) The student demonstrates marketing and management skills used in the operation of horticultural businesses. The student is expected to:	(C) demonstrate safe use of tools and equipment	Rotary Edger/Trimmer Landscape Tools: Use & Safety
(6) The student demonstrates marketing and management skills used in the operation of horticultural businesses. The student is expected to:	(D) identify options and opportunities for business ownership	Business Ownership & Registration
(6) The student demonstrates marketing and management skills used in the operation of horticultural businesses. The student is expected to:	(E) analyze the role of small business in free enterprise	Competition & Free Enterprise