Plant and Soil Evaluation Tool

2020 Curricular Materials Review

Idaho CTE Agriculture, Food, and Natural Resources (AFNR) Plant and Soil Program Standards[[1]](#footnote-1)

**Publisher information**

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* Title:
* Grade Level:
* ISBN #:
* Author:
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# Instructions:

Complete the Publisher Standards Alignment Report below. Please provide written justification as to how the material meets the standard along with location references. If a justification requires additional space, please submit response on an additional document.

# Publisher STANDARDS ALIGNMENT Report:

## Standard APAS.1.0: Plant Anatomy and Identification

### Performance Standard APAS.1.1 Safe Work Practices

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.1.1.1 Identify and properly use personal protection equipment. |  |
| CTE APAS.1.1.2 Read, understand and follow label directions and SDS (safety data sheet). |  |
| CTE APAS.1.1.3 Properly identify common hand tools and power equipment. |  |
| CTE APAS.1.1.4 Safely use common hand tools and power equipment. |  |
| CTE APAS.1.1.5 Complete (EPA) worker protection handler verification card training. |  |

### Performance Standard AENR.1.2 Explain Interrelationships between Natural Resources and Humans in Managing Natural Environments

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE AENR.1.2.1 Identify the demands of population growth on natural resources and the environment. |  |
| CTE AENR.1.2.2 Examine the use and management of renewable and nonrenewable resources. |  |
| CTE AENR.1.2.3 Describe the role of individuals in stewardship of the environment. |  |

Standard APAS.2.0: Plant Anatomy

### Performance Standard APAS.2.1 Plant Cells

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.2.1.1 Label the parts of a plant cell. |  |
| CTE APAS.2.1.2 Differentiate between a plant and animal cell. |  |
| CTE APAS.2.1.3 Explain the function of plant cell organelles. |  |

### Performance Standard APAS.2.2 Root Anatomy

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.2.2.1 Investigate the functions of roots in plants. |  |
| CTE APAS.2.2.2 Identify the parts of a root. |  |
| CTE APAS.2.2.3 Differentiate the two major types of root systems. |  |
| CTE APAS.2.2.4 Investigate specialized structures in roots. |  |
| CTE APAS.2.2.5 Investigate the functions of roots in plants. |  |

### Performance Standard APAS.2.3 Stem Anatomy

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.2.3.1 List the functions of a stem. |  |
| CTE APAS.1.3.2 Recognize the external structures of a stem. |  |
| CTE APAS.2.3.3 Analyze the internal structures of a stem cell. |  |
| CTE APAS.2.3.4 Investigate specialized structures in stems. |  |

### Performance Standard APAS.2.4 Leaf Anatomy

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.2.4.1 Name the main parts of a leaf. |  |
| CTE APAS.2.4.2 Compare common vein patterns found in leaves. |  |
| CTE APAS.2.4.3 List three functions of a leaf, including photosynthetic energy conversion. |  |
| CTE APAS.2.4.4 Differentiate major leaf arrangements. |  |
| CTE APAS.2.4.5 Investigate specialized cell structures in a leaf. |  |

### Performance Standard APAS.2.5 Flower Anatomy

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.2.5.1 Label and describe the parts of a flower. |  |
| CTE APAS.2.5.2 Summarize the purpose of a flower. |  |
| CTE APAS.2.5.3 Distinguish between different types of flowers. |  |
| CTE APAS.2.5.4 Describe the difference between monocot and dicot flowers. |  |
| CTE APAS.2.5.5 Diagram the process of plant pollination and fertilization. |  |

### Performance Standard APAS.2.6 Fruit Anatomy

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.2.6.1 Label and describe the parts of a fruit. |  |
| CTE APAS.2.6.2 Identify and distinguish between basic types of fruits. |  |

### Performance Standard APAS.2.7 Seed anatomy

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.2.7.1 Identify and list the major parts of a seed. |  |
| CTE APAS.2.7.2 List the function of each major part of a seed. |  |

### **Standard APAS.3.0: Plant Physiology**

### Performance Standard APAS.3.1 Energy Conversion in Plants

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.3.1.1 Interpret the process of photosynthesis. |  |
| CTE APAS.3.1.2 Interpret the process of respiration. |  |
| CTE APAS.3.1.3 Compare the process of respiration to photosynthesis. |  |

### Performance Standard APAS.3.2 Transport Within a Plant System

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.3.2.1 Compare the active and passive transport of minerals into and through the root systems to plant nutrition. |  |
| CTE APAS.3.2.2 Compare the structure and function of xylem and phloem cells and tissues. |  |
| CTE APAS.3.2.3 Describe the process of translocation. |  |

### Performance Standard APAS.3.3 Environmental Requirements for Plant Growth

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.3.3.1 Examine the effects of light quality on plant growth (i.e., spectrum, light measurement). |  |
| CTE APAS.3.3.2 Examine the effects of water quality on plant growth (i.e., pH, hardness). |  |
| CTE APAS.3.3.3 Examine the effects of temperature on plant growth. |  |

### Performance Standard APAS.3.4 Plant Growth Regulators

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.3.4.1 Compare the functions of plant hormones. |  |
| CTE APAS.3.4.2 Examine commercial uses for plant growth regulators. |  |

### **Standard APAS.4.0: Plant Identification Skills**

### Performance Standard APAS.4.1 Categorize Plants

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.4.1.1 Discuss the classification and naming of plants. |  |
| CTE APAS.4.1.2 Distinguish the major groups of plants. |  |
| CTE APAS.4.1.3 Correctly categorize common plants by life cycle (i.e., annuals, perennials, etc.). |  |
| CTE APAS.4.1.4 Correctly categorize plants by growth habits (i.e., mounding, trailing, etc.). |  |
| CTE APAS.4.1.5 Utilize resources to establish plant suitability for a selected site (i.e., Hardiness Zone Maps, Heat Zone Maps). |  |
| CTE APAS.4.1.6 Identify common plants by botanical and common names. |  |

### **Standard APAS.5.0: Growing Media**

### Performance Standard APAS.5.1 Soil Texture and Structure

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.5.1.1 List the components of soil. |  |
| CTE APAS.5.1.2 Describe the concept of soil texture and its importance. |  |
| CTE APAS.5.1.3 Classify the texture of a soil sample. |  |
| CTE APAS.5.1.4 Identify various soil structures, their formation, and importance in agriculture production. |  |

### Performance Standard APAS.5.2 Soilless Growing Media

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.5.2.1 Identify the components and source of soilless growing media. |  |
| CTE APAS.5.2.2 Describe the functions of growing media. |  |
| CTE APAS.5.2.3 Determine desirable properties of growing media (i.e., drainage, organic matter, micro‐ organisms). |  |
| CTE APAS.5.2.4 Evaluate the advantages and disadvantages of soilless media. |  |

### Performance Standard APAS.5.3 Chemical Characteristics of Growing Media

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.5.3.1 Test and determine pH level of various growing media. |  |
| CTE APAS.5.3.2 Interpret pH test results of a growing media sample. |  |
| CTE APAS.5.3.3 Test and determine the electrical conductivity (EC) of various growing media. |  |
| CTE APAS.5.3.4 Interpret EC test results of a growing media sample. |  |
| CTE APAS.5.3.5 Interpret soil test results and make recommendation accordingly. |  |
| CTE APAS.5.3.6 Analyze the relationship between soil media and nutrient availability. |  |

### Performance Standard APAS.5.4 Water-Holding Capacity (WHC)

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.5.4.1 Describe water‐holding capacity of soils and its relationship to the water cycle. |  |
| CTE APAS.5.4.2 Explain what determines a soil’s water‐holding capacity. |  |

### **Standard APAS.6.0: Plant Nutrition**

### Performance Standard APAS.6.1 Fertilizer Formulation

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.6.1.1 Differentiate between macronutrients and micronutrients. |  |
| CTE APAS.6.1.2 Measure pH and describe how it is modified. |  |
| CTE APAS.6.1.3 Identify the components of a fertilizer and their role in the biochemical cycle. |  |
| CTE APAS.6.1.4 Interpret a fertilizer label. |  |
| CTE APAS.6.1.5 Categorize methods of application (i.e., granular, time released, injector, foliar). |  |
| CTE APAS.6.1.6 Evaluate application methods to ornamental crops. |  |
| CTE APAS.6.1.7 Develop a fertilizer management plan for an ornamental crop. |  |

### Performance Standard APAS.6.2 Plant Nutrients

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.6.2.1 Correlate plant symptoms to the appropriate nutritional deficiency. |  |
| CTE APAS.6.2.2 Correlate plant symptoms to the appropriate plant toxicity. |  |

### **Standard APAS.7.0: Integrated Pest Management (IOM)**

### Performance Standard APAS.7.1 Integrated Pest Management

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.7.1.1 Define Integrated Pest Management (IPM). |  |
| CTE APAS.7.1.2 Summarize the benefits of IPM. |  |

### Performance Standard APAS.7.2 Common Pests and Diseases

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.7.2.1 Identify types of plant pests and diseases. |  |
| CTE APAS.7.2.2 Identify weed, insect, rodent, and fungi pests. |  |
| CTE APAS.7.2.3 Differentiate between infectious and noninfectious diseases. |  |
| CTE APAS.7.2.4 Identify abiotic plant injuries. |  |

### Performance Standard APAS.7.3 Safe Handling, Use, and Storage of Pesticides

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.7.3.1 Identify and utilize appropriate safety measures when applying pesticides. |  |
| CTE APAS.7.3.2 Interpret pesticide labels. |  |
| CTE APAS.7.3.3 Explain procedures for storing and disposing of pesticides. |  |
| CTE APAS.7.3.4 Evaluate environmental and consumer concerns regarding pest management and biodiversity. |  |
| CTE APAS.7.3.5 Demonstrate how to mix pesticides according to label directions. |  |
| CTE APAS.7.3.6 Calibrate common application equipment and calculate application rate. |  |
| CTE APAS.7.3.7 Explore requirements for obtaining pesticide applicator licenses. |  |

### **Standard APAS.8.0: Plant Propagation**

### Performance Standard APAS.8.1 Sexual Propagation of Ornamental Plants

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.8.1.1 Compare the difference between sexual and asexual propagation. |  |
| CTE APAS.8.1.2 Diagram the process of seed germination. |  |
| CTE APAS.8.1.3 Identify the conditions needed for seed germination. |  |
| CTE APAS.8.1.4 Compare the methods of seed preparation. |  |
| CTE APAS.8.1.5 Demonstrate techniques for sowing seeds. |  |
| CTE APAS.8.1.6 Determine germination percent. |  |

### Performance Standard APAS.8.2 Asexual Propagation of Ornamental Plants

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.8.2.1 Summarize optimum conditions for asexual propagation. |  |
| CTE APAS.8.2.2 Demonstrate techniques used to propagate plants by cutting. |  |
| CTE APAS.8.2.3 Demonstrate techniques used to propagate plants by division. |  |
| CTE APAS.8.2.4 Demonstrate techniques used to propagate plants by separation. |  |
| CTE APAS.8.2.5 Demonstrate techniques used to propagate plants by layering. |  |

### **Standard APAS.9.0: Ornamental Horticulture Crops**

### Performance Standard APAS.9.1 Crop Production

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.9.1.1 Plan a growing schedule to maximize the production of a growing facility. |  |
| CTE APAS.9.1.2 Utilize best management practices when spacing crops. |  |
| CTE APAS.9.1.3 Select appropriate containers and medium for a crop. |  |

### Performance Standard APAS.9.2 Growth Maintenance Procedures

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.9.2.1 Compare and contrast hard and soft pinches. |  |
| CTE APAS.9.2.2 Pinch plants using best management practices. |  |
| CTE APAS.9.2.3 Examine proper pruning techniques. |  |
| CTE APAS.9.2.4 Demonstrate proper watering techniques. |  |
| CTE APAS.9.2.5 Develop a plant lighting schedule for a crop. |  |
| CTE APAS.9.2.6 Develop a fertilizer schedule for a crop. |  |

### Performance Standard APAS.9.3 Transplanting

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.9.3.1 Identify the proper stage of plant growth for transplanting. |  |
| CTE APAS.9.3.2 Select appropriate plants for transplanting. |  |
| CTE APAS.9.3.3 Demonstrate transplanting procedures to industry standards. |  |

### Performance Standard APAS.9.4 Production Standards

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.9.4.1 Compare hardening processes. |  |
| CTE APAS.9.4.2 Prepare plants for sale using best management practices. |  |
| CTE APAS.9.4.3 Examine current industry crop standards (i.e. ANSI, ASNS, NALP). |  |

### **Standard APAS.10.0: Business Concepts**

### Performance Standard APAS.10.1 Basics of Marketing

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.10.1.1 Compare and contrast advertising methods. |  |
| CTE APAS.10.1.2 Define the purpose for developing a marketing plan. |  |
| CTE APAS.10.1.3 Create a business display to a target market. |  |

### Performance Standard ABM.10.2 School and community awareness

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.10.2.1 Compare and contrast the relationship between marketing and selling. |  |
| CTE APAS.10.2.2 Calculate markup. |  |
| CTE APAS.10.2.3 Complete a sales ticket. |  |
| CTE APAS.10.2.4 Complete a pre‐sale and post‐sale plant inventory. |  |
| CTE APAS.10.2.5 Determine cost of sales. |  |
| CTE APAS.10.2.6 Complete estimates and bids (cost analysis). |  |
| CTE APAS.10.2.7 Identify the characteristics of an effective salesperson, and define related terms. |  |
| CTE APAS.10.2.8 Analyze the customer buying process. |  |
| CTE APAS.10.2.9 Identify the steps involved in the selling process. |  |
| CTE APAS.10.2.10 Identify the benefits of different types of sales, including website and e‐commerce. |  |
| CTE APAS.10.2.11 Assess the basic components and content of a business website. |  |

### **Standard APAS.11.0: Plant Technologies**

### Performance Standard APAS.11.1 Selective Plant Breeding

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.11.1.1 Describe the selective plant breeding process. |  |
| CTE APAS.11.1.2 Explain how to estimate the heritability of certain traits. |  |
| CTE APAS.11.1.3 Predict the genotypes and phenotypes from monohybrid and dihybrid crosses using a Punnett Square. |  |
| CTE APAS.11.1.4 Describe sex determination, linkage, crossover, and mutation. |  |
| CTE APAS.11.1.5 Describe how biotechnology tools are used to monitor and direct plant breeding. |  |

### Performance Standard APAS.11.2 Genetic Engineering of Plants

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.11.2.1 Explain the advantages and disadvantages for genetic manipulation of plants. |  |
| CTE APAS.11.2.2 Identify transgenic plants on the market. |  |

### Performance Standard APAS.11.3 Micropropagation Techniques

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.11.3.1 Define micropropagation and its importance. |  |
| CTE APAS.11.3.2 Explain applications of micropropagation. |  |
| CTE APAS.11.3.3 Identify tools and materials for micropropagation procedures. |  |
| CTE APAS.11.3.4 Describe procedures used in micropropagation. |  |

### Performance Standard APAS.11.4 Hydroponic Techniques

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.11.4.1 Define hydroponics and its importance to society. |  |
| CTE APAS.11.4.2 Explain applications of hydroponics. |  |
| CTE APAS.11.4.3 Describe procedures used in hydroponic plant production. |  |

### **Standard APAS.12.0: Ornamental Design Standards**

### Performance Standard APAS.12.1 Principles and Elements of Design

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.12.1.1 Compare and contrast balance using symmetry, asymmetry, and massing. |  |
| CTE APAS.12.1.2 Explain how the principles of dominance and focal point are used in design. |  |
| CTE APAS.12.1.3 Determine appropriate proportion and scale in a design. |  |
| CTE APAS.12.1.4 Illustrate how to establish rhythm in a design. |  |
| CTE APAS.12.1.5 Discuss relationship of color to emotions/symbolism. |  |
| CTE APAS.12.1.6 Use color, texture, and form to create a desired atmosphere. |  |

### Performance Standard APAS.12.2 Implementation of Principles and Elements of Design

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.12.2.1 Create a project using principles and elements of design. |  |
| CTE APAS.12.2.2 Justify design choices of finished project. |  |

### **Standard APAS.13.0: Career Opportunities in Ornamental Horticulture**

### Performance Standard APAS.13.1 Careers in Ornamental Horticulture

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.13.1.1 Research potential careers in ornamental horticulture and plant science. |  |
| CTE APAS.13.1.2 Demonstrate employability skills for a career in the ornamental horticulture industry. |  |
| CTE APAS.13.1.3 Research additional industry certifications available. |  |

### **Standard APAS.14.0: Leadership Training Through Agricultural Education**

### Performance Standard APAS.14.1 Effective Leadership and Leadership Training

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.14.1.1 Expand leadership experience by participating in a chapter activity. |  |
| CTE APAS.14.1.2 Participate in a career development event at the local level or above. |  |
| CTE APAS.14.1.3 Exhibit leadership skills by demonstrating proper parliamentary procedure. |  |
| CTE APAS.14.1.4 Participate in a speech or presentation activity. |  |

### Performance Standard APAS.14.2 School and Community Awareness

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.14.2.1 Participate in a school improvement or community development project. |  |

### **Standard APAS.15.0: Supervised Agricultural Experience (SAE) and Agricultural Career Preparation**

### Performance Standard APAS.15.1 Maintain a Supervised Agricultural Experience (SAE)

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| Student Competencies by Performance Standard | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| CTE APAS.15.1.1 Accurately maintain SAE record books. |  |
| CTE APAS.15.1.2 Investigate the proficiency award areas related to SAE program area. |  |
| CTE APAS.15.1.3 Actively pursue necessary steps to receive higher degrees in FFA. |  |

# Indicators of quality Rubric:

Standards aligned and Integrated Curriculum:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| --- | --- |
| 1. The curriculum is based on industry-validated technical standards and competencies.
 |  |
| 1. The curriculum is aligned with relevant content and standards for core subjects, such as reading, math and science, including federal, state and/or local standards, as appropriate.
 |  |
| 1. The curriculum incorporates employability skill standards that help students succeed in the workplace, such as problem solving, critical thinking, teamwork, communications and workplace etiquette.
 |  |
| 1. The curriculum allows for student application of integrated knowledge and skills in authentic scenarios.
 |  |
| 1. Materials used reflect current workplace, industry and/or occupational practices and requirements.
 |  |

Access and Equity:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| --- | --- |
| 1. Materials are provided in a way that ensures all students have the opportunity to achieve success in the program of study, including by meeting Title IX, Americans with Disabilities Act and other accessibility requirements.
 |  |
| 1. Materials and assessments are free from bias, inclusive and non-discriminatory, and offered in a way that ensures all students have the opportunity to achieve success in the program of study.
 |  |
| 1. Contains guidance to support differentiated and culturally responsive (i.e., purposefully represents diverse cultures, linguistic backgrounds, learning styles and interests) instruction in the classroom so that every student’s need are addressed by including:
	1. Suggestions for how to promote equitable instruction by making connections to culture, home, neighborhood, and community as appropriate.
	2. Appropriate scaffolding, interventions, and supports, including integrated and appropriate reading, writing, listening, and speaking alternatives (e.g., translations, picture support, graphic organizers) that neither sacrifice content nor avoid language development for English language learners, special needs, or below grade level readers.
	3. Digital and print resources that provide various levels of readability.
	4. Modifications and extensions for all students, including those performing above their grade level, to deepen understanding of the content.
	5. Materials in multiple language formats.
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Student Focus:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| --- | --- |
| 1. The material supports the sequential and cumulative development of foundational skills and progresses in specificity to build students’ depth of knowledge and skills. Those skills are necessary for a student’s independent comprehension of grade-level complex texts and mastery of tasks called for by the standards.
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| 1. Content and standards within the program of study are non-duplicative and vertically aligned to prepare students to transition seamlessly to the next level of education.
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| 1. The material provides many and varied opportunities for students to work with each standard within the grade level.
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| 1. The material cross-refers and integrates other content areas.
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| 1. The material has a balance of text types and lengths that encourage close, in-depth reading and rereading, analysis, comparison, and synthesis of texts.
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| 1. The material includes sufficient supplementary activities or assignments that are appropriately integrated into the text.
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| 1. The material has activities and assignments that develop problem-solving skills and foster synthesis and inquiry at both an individual and group level.
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| 1. The material has activities and assignments that reflect varied learning styles of students.
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| 1. The material includes appropriate instructional strategies.
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| 1. Project-based learning and related instructional approaches, such as problem-based, inquiry-based and challenge-based learning, are fully integrated into the material.
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Pedagogical Approach:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
| --- | --- |
| 1. Provides guidance for teachers throughout for how learning experiences build on each other to support students in developing a deep understanding of the content.
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| 1. Provides scaffolded supports for teachers to facilitate learning of the content so that students are increasingly responsible for making sense of the content.
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| 1. The material provides opportunities for supporting English language learners to regularly and actively participate with grade-level text.
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| 1. The material gives clear and concise instruction to teachers and students. It is easy to navigate and understand.
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| 1. Includes appropriate academic and content-specific vocabulary in the context of the learning experience that is accessible, introduced, reinforced, reviewed, and augmented with visual representations when appropriate.
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| 1. Allows teachers to access, revise, and print form digital resources (e.g., readings, labs, assessments, rubrics).
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| 1. Uses varied modes (selected, constructed, project-based, extended response, and performance tasks) of instruction-embedded pre-, formative, summative, peer, and, self-assessment measures of learning.
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| 1. Includes editable and aligned rubrics, scoring guidelines, and exemplars that provide guidance for assessing student performance and to support teachers in planning instruction and providing ongoing feedback to students.
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| 1. Provides multiple opportunities for students to demonstrate and receive feedback on performance of practices connected with their understanding of concepts.
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Presentation and Design:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
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| 1. The material has an aesthetically appealing appearance.
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| 1. Digital and print materials are consistently formatted, visually focused, and uncluttered for efficient use.
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| 1. The material has a reasonable and appropriate balance between text and illustration. The material has grade-appropriate font size.
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| 1. The illustrations clearly cross-reference the text, are directly relevant to the content (not simply decorative), and promote thinking, discussion, and problem solving.
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| 1. Non-text content (performance clips, images, maps, globes, graphs, pictures, charts, databases, and models) are accurate and well integrated into the text.
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Technology:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. |
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| 1. Technology and digital media support, extend, and enhance learning experiences.
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| 1. The material has “platform neutral” technology (i.e., cloud based) and availability for networking.
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| 1. The material has a user-friendly and interactive interface allowing the user to control (shift among activities).
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For Questions Contact

Content & Curriculum

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1. [Idaho AFNR Plant and Soil Program Standards](https://cte.idaho.gov/wp-content/uploads/2017/02/Plant_Soil_Program_Standards.pdf) [↑](#footnote-ref-1)