

Horticulture Sciences (8034)

Horticulture Sciences (8034) HS

A Demonstrating Personal Qualities and Abilities HS.1

- 1 Demonstrate creativity and innovation. HS.1.1
 - 2 Demonstrate critical thinking and problem solving. HS.1.2
 - 3 Demonstrate initiative and self-direction. HS.1.3
 - 4 Demonstrate integrity. HS.1.4
 - 5 Demonstrate work ethic. HS.1.5
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B Demonstrating Interpersonal Skills HS.2

- 6 Demonstrate conflict-resolution skills. HS.2.6
 - 7 Demonstrate listening and speaking skills. HS.2.7
 - 8 Demonstrate respect for diversity. HS.2.8
 - 9 Demonstrate customer service skills. HS.2.9
 - 10 Collaborate with team members. HS.2.10
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C Demonstrating Professional Competencies HS.3

- 11 Demonstrate big-picture thinking. HS.3.11
 - 12 Demonstrate career- and life-management skills. HS.3.12
 - 13 Demonstrate continuous learning and adaptability. HS.3.13
 - 14 Manage time and resources. HS.3.14
 - 15 Demonstrate information-literacy skills. HS.3.15
 - 16 Demonstrate an understanding of information security. HS.3.16
 - 17 Maintain working knowledge of current information-technology (IT) systems. HS.3.17
 - 18 Demonstrate proficiency with technologies, tools, and machines common to a specific occupation. HS.3.18
 - 19 Apply mathematical skills to job-specific tasks. HS.3.19
 - 20 Demonstrate professionalism. HS.3.20
 - 21 Demonstrate reading and writing skills. HS.3.21
 - 22 Demonstrate workplace safety. HS.3.22
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D Examining All Aspects of an Industry HS.4

- 23 Examine aspects of planning within an industry/organization. [HS.4.23](#)
 - 24 Examine aspects of management within an industry/organization. [HS.4.24](#)
 - 25 Examine aspects of financial responsibility within an industry/organization. [HS.4.25](#)
 - 26 Examine technical and production skills required of workers within an industry/organization. [HS.4.26](#)
 - 27 Examine principles of technology that underlie an industry/organization. [HS.4.27](#)
 - 28 Examine labor issues related to an industry/organization. [HS.4.28](#)
 - 29 Examine community issues related to an industry/organization. [HS.4.29](#)
 - 30 Examine health, safety, and environmental issues related to an industry/organization. [HS.4.30](#)
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E Addressing Elements of Student Life [HS.5](#)

- 31 Identify the purposes and goals of the student organization. [HS.5.31](#)
 - 32 Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult. [HS.5.32](#)
 - 33 Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects. [HS.5.33](#)
 - 34 Identify Internet safety issues and procedures for complying with acceptable use standards. [HS.5.34](#)
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F Exploring Work-Based Learning [HS.6](#)

- 35 Identify the types of work-based learning (WBL) opportunities. [HS.6.35](#)
 - 36 Reflect on lessons learned during the WBL experience. [HS.6.36](#)
 - 37 Explore career opportunities related to the WBL experience. [HS.6.37](#)
 - 38 Participate in a WBL experience, when appropriate. [HS.6.38](#)
 - 39 Identify the role of supervised agricultural experiences (SAEs) in agricultural education. [HS.6.39](#)
 - 40 Participate in an SAE. [HS.6.40](#)
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G Exploring Leadership Opportunities through FFA [HS.7](#)

- 41 Identify the benefits and responsibilities of FFA membership. [HS.7.41](#)
- 42 Describe leadership characteristics and opportunities as they relate to agriculture and FFA. [HS.7.42](#)
- 43 Apply for an FFA degree and/or an agricultural proficiency award. [HS.7.43](#)

H Gaining an Overview of the Horticulture Industry HS.8

- 44 Follow safety procedures in the horticulture industry. HS.8.44
 - 45 Outline the scope of the horticulture industry. HS.8.45
 - 46 Research career opportunities in the horticulture industry. HS.8.46
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I Selecting, Operating, and Maintaining Greenhouses HS.9

- 47 Describe factors to consider when planning a greenhouse. HS.9.47
 - 48 Identify a variety of greenhouses, their components, and other protected structures. HS.9.48
 - 49 Identify a variety of greenhouse environmental controls. HS.9.49
 - 50 Describe procedures for greenhouse structural and equipment maintenance. HS.9.50
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J Applying Science to Horticulture HS.10

- 51 Describe plant taxonomy. HS.10.51
 - 52 Analyze plant anatomy and physiology. HS.10.52
 - 53 Define the characteristics of soil and soilless substrates. HS.10.53
 - 54 Describe nutrition management practices. HS.10.54
 - 55 Compare irrigation system options. HS.10.55
 - 56 Describe how environmental factors affect plant growth. HS.10.56
 - 57 Describe plant propagation methods. HS.10.57
 - 58 Demonstrate plant propagation. HS.10.58
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K Investigating the Floral Industry HS.11

- 59 Identify floriculture crops. HS.11.59
 - 60 Produce a floriculture crop. HS.11.60
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61 Design interior plantings. HS.11.61

- 62 Design floral arrangements. HS.11.62
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L Investigating the Landscaping Industry HS.12

- 63 Identify landscape plants. HS.12.63
 - 64 Design landscapes. HS.12.64
 - 65 Construct landscapes. HS.12.65
 - 66 Identify landscape maintenance tasks. HS.12.66
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M Investigating the Turf Grass Industry HS.13

- 67 Identify turfgrass species. HS.13.67
- 68 Outline aspects of the turfgrass industry. HS.13.68

69 Describe the procedures for establishing turf. [HS.13.69](#)

70 Maintain turf. [HS.13.70](#)

N Investigating Pest Management [HS.14](#)

71 Identify plant pests. [HS.14.71](#)

72 Interpret pesticide labels. [HS.14.72](#)

73 Interpret safety data sheets (SDS). [HS.14.73](#)

74 Identify safety issues in pest management. [HS.14.74](#)

75 Identify pest management programs for horticulture crops. [HS.14.75](#)

76 Explain the principles of Integrated Pest Management (IPM). [HS.14.76](#)

77 Explain the differences between biotic and abiotic issues in pest management. [HS.14.77](#)

O Investigating Fruit and Vegetable Production [HS.15](#)

78 Identify vegetable crops. [HS.15.78](#)

79 Plan a vegetable garden site. [HS.15.79](#)

80 Produce vegetables. [HS.15.80](#)

81 Identify fruit and nut crops. [HS.15.81](#)

82 Plan a fruit garden, orchard, nut tree nursery, or vineyard. [HS.15.82](#)

83 Produce fruit crops. [HS.15.83](#)

84 Describe additional horticultural methods used for flower, vegetable, and fruit production. [HS.15.84](#)