

# 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

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## **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

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## **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

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## **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