Virginia CTE

Greenhouse Plant Production and Management (2019)

Demonstrating Personal Qualities and Abilities	1	Demonstrate creativity and innovation. 1
	2	Demonstrate critical thinking and problem solving. 2
	3	Demonstrate initiative and self-direction. 3
	4	Demonstrate integrity. 4
	5	Demonstrate work ethic. 5
Demonstrating Interpersonal Skills	6	Demonstrate conflict-resolution skills. 6
	7	Demonstrate listening and speaking skills. 7
	8	Demonstrate respect for diversity. 8
	9	Demonstrate customer service skills. 9
	10	Collaborate with team members. 10
Demonstrating Professional Competencies	11	Demonstrate big-picture thinking. 11
	12	Demonstrate career- and life-management skills. 12
	13	Demonstrate continuous learning and adaptability. 13
	14	Manage time and resources. 14
	15	Demonstrate information-literacy skills. 15
	16	Demonstrate an understanding of information security. 16
	17	Maintain working knowledge of current information-technology (IT) systems. 17
	18	Demonstrate proficiency with technologies, tools, and machines common to a specific occupation. 18
		Apply mathematical skills to job-specific tasks. 19

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	20 **Demonstrate professionalism.** 20
	21 **Demonstrate reading and writing skills.** 21
	22 **Demonstrate workplace safety.** 22
Examining All Aspects of an Industry	23 **Examine aspects of planning within an industry/organization.** 23
	24 **Examine aspects of management within an industry/organization.** 24
	25 **Examine aspects of financial responsibility within an industry/organization.** 25
	26 **Examine technical and production skills required of workers within an industry/organization.** 26
	27 **Examine principles of technology that underlie an industry/organization.** 27
	28 **Examine labor issues related to an industry/organization.** 28
	29 **Examine community issues related to an industry/organization.** 29
	30 **Examine health, safety, and environmental issues related to an industry/organization.** 30
Addressing Elements of Student Life	31 **Identify the purposes and goals of the student organization.** 31
	32 **Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.** 32
	33 **Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.** 33
	34 **Identify Internet safety issues and procedures for complying with acceptable use standards.** 34
Exploring Work-Based Learning	35 **Identify the types of work-based learning (WBL) opportunities.** 35
	36 **Reflect on lessons learned during the WBL experience.** 36
	37 **Explore career opportunities related to the WBL experience.** 37
	38 **Participate in a WBL experience, when appropriate.** 38
Exploring Leadership Opportunities through FFA	39 **Identify the role of supervised agricultural experiences (SAEs) in agricultural education.** 39
	Participate in an SAE. 40

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	41 Identify the benefits and responsibilities of FFA membership. 41
	42 Describe leadership characteristics and opportunities as they relate to agriculture and FFA. 42
	43 Apply for an FFA degree and/or an agricultural proficiency award. 43
Gaining an Overview of the Greenhouse Plant Production and Management Industry	44 Follow safety procedures in the greenhouse plant production industry. 44
	45 Analyze career pathways in the greenhouse plant production industry. 45
Operating Plant Production Facilities	46 Differentiate among types of production facilities for ornamental and vegetable crops. 46
	47 Explain hydroponics, aquaponics, and aeroponics. 47
	48 Produce a hydroponic crop. 48
	49 Analyze the factors that influence greenhouse site selection. 49
	50 Analyze types and components of greenhouse structures. 50
	51 Compare heating and cooling options. 51
	52 Compare lighting system options. 52
	53 Compare irrigation system options. 53
Identifying Plants	54 Identify woody plants. 54
	55 Identify herbaceous plants. 55
Demonstrating Plant Production	56 Propagate plants sexually. 56
	57 Propagate plants asexually. 57
	58 Manipulate temperature to affect plant growth. 58
	59 Manipulate light to affect plant growth. 59
	60 Manage irrigation. 60
	61 Manage crop substrate. 61
	62 Manage nutrients for plants. 62
	Regulate plant growth. 63

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	64 Produce horticultural crops. 64
	65 Prepare greenhouse and nursery plants for market. 65
Managing Pests	**66** Explain how to manage pests. 66
	67 Identify common greenhouse pests. 67
	68 Explain the importance of pesticide labeling. 68
	69 Explain how to handle pesticides safely. 69
	70 Design an IPM plan. 70
	71 Explain various Virginia pesticide licenses. 71
Understanding Marketing and Business Management	**72** Analyze business markets. 72
	73 Evaluate a business plan. 73
	74 Maintain production and business records. 74