Virginia CTE

Agriscience and Technology 8004 (2021)

Demonstrating Personal Qualities and Abilities	1	Demonstrate creativity and innovation A&T 1.1
	2	Demonstrate critical thinking and problem solving. A&T 1.2
	3	Demonstrate initiative and self-direction. A&T 1.3
	4	Demonstrate integrity. A&T 1.4
	5	Demonstrate work ethic. A&T 1.5
Demonstrating Interpersonal Skills	6	Demonstrate conflict-resolution skills. A&T 2.6
	7	Demonstrate listening and speaking skills. A&T 2.7
	8	Demonstrate respect for diversity. A&T 2.8
	9	Demonstrate customer service skills. A&T 2.9
	10	Collaborate with team members. A&T 2.10
Demonstrating Professional Competencies	11	Demonstrate big-picture thinking. A&T 3.11
	12	Demonstrate career- and life-management skills. A&T 3.12
	13	Demonstrate continuous learning and adaptability. A&T 3.13
	14	Manage time and resources. A&T 3.14
	15	Demonstrate information-literacy skills. A&T 3.15
	16	Demonstrate an understanding of information security. A&T 3.16
	17	Maintain working knowledge of current information-technology (IT) systems. A&T 3.17
	18	Demonstrate proficiency with technologies, tools, and machines common to a specific occupation. A&T 3.18
		Apply mathematical skills to job-specific tasks. A&T 3.19

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	20	**Demonstrate professionalism.** A&T 3.20
	21	**Demonstrate reading and writing skills.** A&T 3.21
	22	**Demonstrate workplace safety.** A&T 3.22
Addressing Elements of Student Life	23	**Identify the purposes and goals of the student organization.** A&T 4.23
	24	**Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.** A&T 4.24
	25	**Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.** A&T 4.25
	26	**Identify Internet safety issues and procedures for complying with acceptable use standards.** A&T 4.26
Exploring Work-Based Learning	27	**Identify the types of work-based learning (WBL) opportunities.** A&T 5.27
	28	**(Optional) Reflect on lessons learned during the WBL experience.** A&T 5.28
	29	**Explore career opportunities related to the WBL experience.** A&T 5.29
	30	**(Optional) Participate in a WBL experience, when appropriate.** A&T 5.30
	31	**Identify the role of supervised agricultural experiences (SAEs) in agricultural education.** A&T 5.31
	32	**Participate in an SAE.** A&T 5.32
Exploring Leadership Opportunities through FFA	33	**Identify the benefits and responsibilities of FFA membership.** A&T 5.33
	34	**Describe leadership characteristics and opportunities as they relate to agriculture and FFA.** A&T 5.34
	35	**(Optional) Apply for an FFA degree and/or an agricultural proficiency award.** A&T 5.35
Becoming Oriented to Agriscience Technology	36	**Identify class rules, safety precautions, and procedures.** A&T 6.36
	37	**Explore new and emerging technologies in agriculture and agriscience.** A&T 6.37
	38	**Identify the components of an agricultural/agriscience research project.** A&T 6.38
		Identify safety procedures in performing experiments. A&T 6.39

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	40	**Perform an agriculture/agriscience experiment.** A&T 6.40
Understanding Global Agriculture	41	**Define terms related to trade.** A&T 7.41
	42	**Explore global agriculture.** A&T 7.42
	43	**Explain the relationship of global trade to Virginia agriculture.** A&T 7.43
Understading AFNR Businesses	44	**Identify the significance of agribusiness in agriscience.** A&T 8.44
	45	**Identify types of agribusiness.** A&T 8.45
	46	**Identify risks inherent in agribusiness.** A&T 8.46
	47	**Identify characteristics of an entrepreneur.** A&T 8.47
	48	**Explore career opportunities related to agriculture, food, and natural resources (AFNR).** A&T 8.48
Understanding Agricultural Mechanics	49	**Demonstrate safety practices.** A&T 9.49
	50	**Demonstrate measuring skills.** A&T 9.50
	51	**Interpret plans for constructing an agriculture project.** A&T 9.51
	52	**Identify new and emerging equipment and tools in agriscience.** A&T 9.52
	53	**Identify portable hand tools, portable power tools, equipment, and accessories.** A&T 9.53
	54	**Demonstrate the use of hand tools, portable power tools, equipment, and accessories.** A&T 9.54
	55	**Demonstrate woodworking skills.** A&T 9.55
	56	**Explain the principles of electricity.** A&T 9.56
	57	**Demonstrate basic electrical wiring skills.** A&T 9.57
	58	**(Optional) Shape metal.** A&T 9.58
	59	**(Optional) Explain the arc-welding process.** A&T 9.59
	60	**(Optional) Operate arc-welding equipment.** A&T 9.60
	61	**Explain the operating principles of small engines.** A&T 9.61
Ex Sci		Skip to main content **Categorize breeds of animals.** A&T 10.62

	63 **Identify equipment used in the care of companion and/or livestock animals.** A&T 10.63
	64 **Evaluate types of companion and/or livestock animal feed.** A&T 10.64
	65 **Explore healthcare and maintenance practices for companion and/or livestock animals.** A&T 10.65
Exploring Natural Resources	66 **Identify the importance of natural resource management.** A&T 11.66
	67 **(Optional) Determine the volume and value of timber.** A&T 11.67
	68 **Identify Virginia trees as sawtimber, pulpwood, and/or ornamentals.** A&T 11.68
	69 **(Optional) Explain soil fertility.** A&T 11.69
	70 **Discuss the importance of water to agriculture.** A&T 11.70
	71 **Analyze a water sample.** A&T 11.71
Exploring Horticultural Sciences	72 **Identify common garden, landscape, and interior plants.** A&T 12.72
	73 **Describe integrated pest management.** A&T 12.73
	74 **(Optional) Explore the principles of floral design.** A&T 12.74
	75 **(Optional) Explore the principles of landscape design.** A&T 12.75
	76 **(Optional) Identify common horticultural and landscape tools, equipment, technologies, and practices.** A&T 12.76
Exploring Food Science	77 **Explore the food industry as it relates to agriculture, agriscience, and agribusiness.** A&T 13.77
	78 **Research foodborne illnesses.** A&T 13.78
	79 **Describe methods of food processing and preservation.** A&T 13.79
	80 **Explain food labels.** A&T 13.80