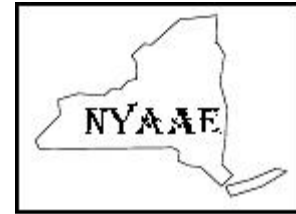




**Cornell University**  
Department of  
Education



# ***Agricultural Education Technical Assessment System***

***New York State Department of Education  
Career and Technical Education Program Approval***

**Developed by a Consortium of**

***Cornell University and the  
New York Association of Agricultural Educators***

**In Collaboration with the  
Virginia Association of Agricultural Educators**

**And Operated by the  
Cornell University Agricultural Outreach and Education Program**



**New York Agricultural Education Outreach  
New York Agriculture In The Classroom**

## **Agricultural Education Technical Assessment System**

In May 2000 the Board of Regents in New York State (NYS) implemented a System of Accountability for Student Success (SASS). This system puts mandates on the requirements for a high school diploma, with a concentrated focus on the five core academics of English (four years), mathematics (three years), global history and geography (two years), U.S. history and government (one year), and science (three years). Based on high academic learning standards, Regents testing continues to drive accountability in the NYS educational system. Related to the SASS, a New York State Education Department (NYSED) policy statement on Career and Technical Education (CTE) was approved by the Board of Regents in 2001 and the subsequent CTE program approval process made formal assessment for students in agricultural education a priority in the state.

### **Background**

#### **New York State Education Department Requirements**

The NYSED *Implementation Guide for Career and Technical Education Program Approval* specifies:

*Technical assessments based on recognized industry and national standards are essential tools in career and technical education programs (CTE). The results of these assessments, document student performance based on the most current industry standards, and provide feedback to the school district/BOCES. Successful completion of a technical assessment is required for a student to earn a technical endorsement on the high school diploma, but is not a requirement for high school graduation.*

*The technical assessment required of approved (CTE) programs is defined in Commissioner's Regulations [100.5(d)(6)(ii)(b)] as:*

*"...an industry-developed assessment consisting of written examination(s), student project(s) and student demonstration(s) of technical skills to measure proficiency in a specific technical field through the application of national standards in such technical field."*

*The New York State Education Department does not approve or certify any technical assessment.*

*The criteria for approval requires that technical assessments be available to students enrolled in a CTE program. These assessments are selected by the local school district or BOCES and approved by the superintendent or district superintendent.*

*Process:*

*Students in the approved career and technical education program must pass an industry-approved technical assessment, and the five Regents examinations to earn a technical endorsement on their diploma.*

*Technical assessments are industry developed and must have three parts:*

- *written*
- *student demonstration*
- *student project*

*A consortium of local, regional, State business/industry may be formed in the absence of an existing appropriate technical assessment to produce such instruments [C.R.R. 100.5(d)(6)(ii)(b)].*

## **CNY Consortium**

To conform to the new assessment requirements of the CTE program approval process, in 2003 the Central New York (CNY) Agricultural Education Consortium and Cornell University Agricultural Education Outreach (AEO) program developed a technical assessment for the Agricultural Education program in accordance with the NYSED requirements for accreditation. The original technical assessment system developed by the CNY Consortium was designed to serve a limited range of programs and placed a heavy emphasis on the needs of the CNY member schools. The CNY technical assessment was never intended to serve as a technical assessment of student achievement in the majority of agricultural education programs of New York State.

## **CU/NYAAE Consortium**

Nationally-recognized technical assessments for agricultural education students are very limited. The National Occupational Competency Testing Institute (NOCTI) provides a number of technical assessments in relatively specific occupational areas, but the consensus among New York agriculture teachers interviewed for this project was that the NOCTI assessments do not meet the needs of general agriculture programs. Given the absence of a broad-based, general agriculture technical assessment and the limitations of the CNY consortium assessment, a need was apparent for the development of a technical assessment system that would be applicable for a wide range of agricultural education programs in New York State. Under the authority of the final paragraph in the NYSED Implementation Guide, faculty members from the Cornell University Department of Education and the New York Association of Agricultural Educators (CU-NYAAE) organized as a Consortium. The purpose of the Consortium was to develop a technical assessment system consisting of standards and competency measures that would meet the Career and Technical Education Program Approval Guidelines and that would be intended and designed to serve more broadly as a state-wide technical assessment system for agricultural education.

## **Agricultural Education Curriculum Model**

The agricultural education program in the United States is unique in that a three-dimensional curriculum model has been used as the basis for the program for many years. Similarly to most traditional disciplines in the schools, classroom and laboratory instruction stand at the center of the curriculum. But in agricultural education, the curriculum also integrates personal and leadership development, largely through the FFA. Beyond that, the program emphasizes experiential learning through a systematic program of Supervised Agricultural Experiences (SAE). See Figure 1. This comprehensive model has been shown to promote education of

“the whole student” by providing application of skills and knowledge learned in the classroom and laboratory in a real-world setting through a supervised experiential program and in a setting of mutual support and personal/leadership development.

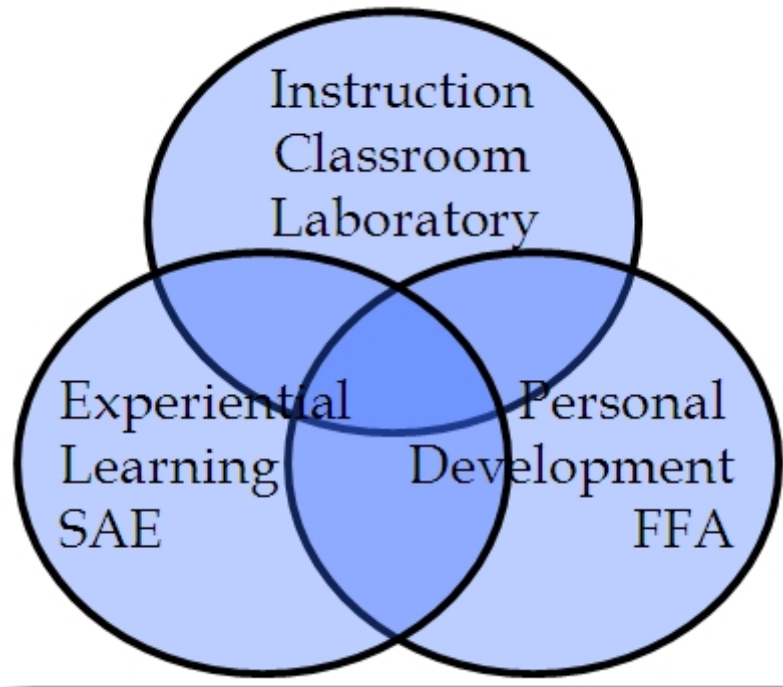


Figure 1. Agricultural Education’s Comprehensive Programmatic and Curricular Model

### Career Pathways

The traditional role of vocational education, as established under federal legislation beginning with the Smith Hughes Act of 1917, was the preparation of entry-level workers for narrowly defined specific occupations. Given the changing landscape of American education in the last half of the 20<sup>th</sup> century, and in particular the fundamental shifts in career and technical education in the past 25 years, that model of career preparation is no longer appropriate or acceptable. To replace the outmoded entry-level job model of vocational education, the National Association of State Directors of Career Technical Education Consortium (NASDCTEc) has created a Career Clusters model that effectively raises the standards of CTE and broadens the applicability of CTE programs to better accommodate the needs of contemporary students and a globally competitive economy.

The Career Clusters Model is comprised of sixteen occupational clusters preparing pathways for secondary students to transition into 2-year or 4-year post secondary programs or the workplace. The Agriculture, Food, and Natural Resource (ANR) cluster was used as the foundation to develop the NYS core curriculum framework because it encompasses much of the diversity of NYS agricultural education. The ANR cluster consists of seven pathways: (1) agribusiness systems, (2) animal systems, (3) environmental service systems, (4) food products and processing systems, (5) natural resource systems, (6) plant systems, and (7) power, structure, and technical systems (see Figure 2). There are essentially no agricultural education programs in NYS specializing in food products and processing systems, therefore

that pathway was not included in the this technical assessment. In addition, a number of programs in agricultural education specialize in disciplines that fall within but represent subsets of those pathways. Those specialty programs included environmental science, veterinary science, equine systems, and small animal care. One more specialty area currently under development and field testing to be added soon is horticulture. When those are completed and field tested, the technical assessment will accommodate a total of eleven content areas, starting with six of the seven of the pathways shown in Figure 2.

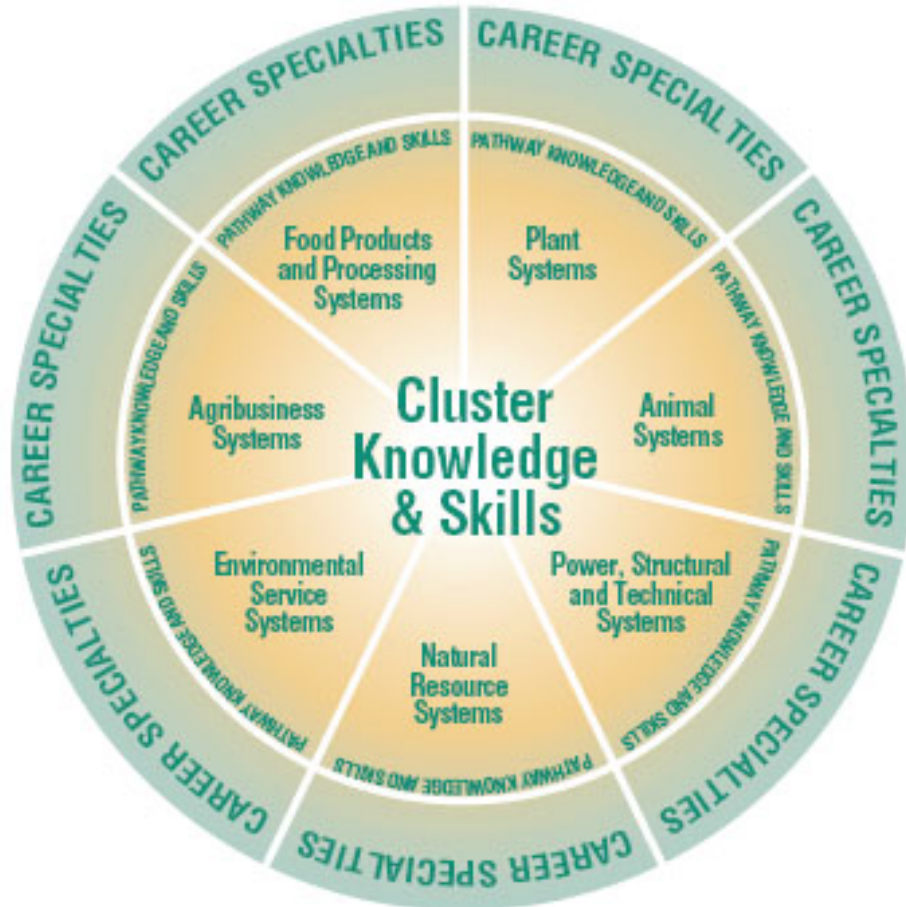


Figure 2. Career Pathways Model for Agriculture, Food, and Natural Resources (ANR) career cluster

Graphic taken From *Career clusters- Focusing education on the future: Preparing for career success in agriculture, food, and natural resources*. National Association of State Directors of Career and Technical Education Consortium, 2003, p. 4. Copyright, 2006 by Career Clusters.

## The CU/NYAAE Technical Assessment

### The Technical Assessment System

The CU-NYAAE Consortium Agricultural Education Technical Assessment system is designed to measure student achievement in comprehensive programs of agricultural education as illustrated in Figure 1. The Technical Assessment consists of three parts: a **Written Examination**, **Student Demonstration** of general performance skills, and **Student Projects** to demonstrate mastery of technical skills. The **Written Examination** section of the system is designed to assess achievement in the arena of classroom and laboratory instruction in eleven content areas as discussed previously and used the Career Pathways model (see Figure 2) as the starting point for specifying much of the content. The **General Performance Skills** section is designed to measure achievement in the Personal Development/FFA arena. The **Technical Competence** section is designed to assess achievement in the Experiential Learning/FFA arena.

Maximum points and cutoff scores for each of the three parts are shown in Table 1. Detailed descriptions of the entire Technical Assessment system are provided on the following pages.

**Table 1. The Cornell-NYAAE Consortium Technical Assessment System for Agricultural Education Program Approval for Career and Technical Education**

<b>Section</b>	<b>Points Allowed</b>	<b>Cutoff Score*</b>
Written Examination	400	240
Student Demonstration of General Performance Skills	300	180
Student Projects to Demonstrate Technical Competencies	300	180
<b>Total Score</b>	<b>1,000</b>	<b>700**</b>

\* To pass, the student must complete all three sections of the assessment, score at least 60% on each of the sections, and score at least 70% on the total assessment.

\*\* The total cutoff score does not equal the sum of the Section cutoff scores (see note above)

### **Written Examination** **400 points maximum; 40% of total score**

#### Background

In order to develop a valid written examination, some basis for specifying the content for which the examination is being developed is required. The lack of an existing NYS agricultural education curriculum framework based on and consistent with the national Career Clusters ANR Career Pathway model necessitated the development and validation of a core curriculum content for the state. Accordingly, the first phase of the project required that a panel of agriculture teachers and other stakeholders be convened to identify and validate that content.

## Content Areas

Based on the work of a series of Delphi and Nominal Group panels followed by an extensive validation and field testing process, a core content curriculum based on student outcomes was developed by the project team members. The core curriculum was distributed to teachers, posted on the project website, and made available via hardcopy by request. That content was used as the basis for item construction for the next portion of the project in which a written examination was developed. The Core Content that emerged from the series of Delphi and Nominal Group studies is provided as Appendix A to this report. In addition to the core areas described above, in collaboration with the Virginia Department of Education and the Virginia Association of Agricultural Educators, Veterinary Science and Small Animal Care content areas were added later using similar procedures and based on approved Virginia curricula for those content areas. The equine systems content was provided by a consortium of the Madison-Oneida BOCES and Hamilton-Fulton-Montgomery BOCES in collaboration with Cornell researchers. The horticulture content is currently under development by the New York State Landscape and Nursery Association in collaboration with Cornell researchers.

## The Examination

The written examination will be prepared based on the teacher's request and will consist of roughly equal numbers of test items selected from Agricultural Foundations and at least two of the content areas shown in Table 2. The Instructions and Request Form used to request the written examination is provided on the following pages in this document.

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**Table 2. Content Areas for the written examination. The Foundations area is required and the teacher must select a minimum of two additional content areas from the remaining content areas.**

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- |  |                                |
|--|--------------------------------|
| • Agricultural Foundations<br>(Required)   | • Natural Resources Management |
| • Agricultural Business                    | • Environmental Science        |
| • Agricultural Mechanics and<br>Technology | • Small Animal Care*           |
| • Animal Science                           | • Veterinary Science*          |
| • Plant Science                            | • Equine Systems**             |
|  | • Horticulture***              |
- 

\* Test items developed in Virginia and based on Virginia state-approved curricula with the item development and field testing under the direction of NYS AOE staff members to insure consistency with NYS Learning Standards.

\*\* Test items developed by the staff from Madison-Oneida BOCES and Hamilton-Fulton-Montgomery BOCES in collaboration with Cornell researchers.

\*\*\* Test items under development by the New York State Landscape and Nursery Association in collaboration with Cornell researchers.

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The multiple choice examination consists of 100 questions generated from the test item pool based on the Natural Agricultural Science Core Content. The Core Content can be requested from the New York Agricultural Outreach and Education (AO&E) Office (call Eric Larsen at 607-254-6385), and it is available on the Technical Assessment page on the AO&E web site at <http://www.nyaged.org/>. The form for requesting the written examination is provided as on the following pages.

## **Instructions and Request Form**

### **Agricultural Science Education Technical Assessment**

#### **Written Examination:**

The multiple choice examination consists of 100 questions generated from the test item pool generated based on the Natural Agricultural Science Core Content. The abridged version of that content is included in this Manual as Appendix A and the full outline is available from the New York Agricultural Outreach and Education Office 607-234-6385. The teacher needs to request a test consisting of questions from at least 3 out of the 11 areas shown below. Please note that ALL requests must include the Foundations area. Based on your request, a 100-item examination will be generated specifically for your school including equal or approximately equal number of items for each of the areas requested.

If you have multiple tracks in your program, you may request more than one combination of areas (test versions) to meet the unique needs of your sub-sets of students. Each student must be included in only one sub-set of students and you must specify in advance the number of students who will be completing each version of the test.

“Practice” tests are NOT allowed. You may request examinations for ONLY those students who are completing the program and who are at the stage in their educational process at which the Technical Assessment is required. With the approval of the Principal, any student may repeat the written examination, as provided by State Education Department policy, but taking the test as an underclass member with the intention of preparing for the test later as a senior is not permitted. Teachers who abuse this provision in one year will not be eligible to participate in this technical assessment system for the following school year.

Your school’s Regents Testing Coordinator or an individual designated by your school Principal must be named to receive and attest to the security of the test and to proctor the administration of the test. The teacher MAY NOT be the accountable person for the security of the test or the administration of the test.

Submit the completed request form to:

Agricultural Outreach and Education - Testing  
106 Kennedy Hall  
Cornell University  
Ithaca, NY 14853  
email: [eal86@cornell.edu](mailto:eal86@cornell.edu)  
fax: 607-255-7905

Submission of the form as an email attachment, by fax, or surface mail will be accepted.

Please allow 3 weeks for the request to be processed.

**Request Form for Multiple Choice Examinations**

**(If you are requesting multiple test versions, you must complete this form for EACH version.)**

Name of teacher requesting test:	
School:	
Name of person designated to receive, secure, and administer the test:	
School Address:	
Phone Number:	
Teacher e-mail:	
Date test is needed:	
Number of students to take this test:	

Please check the areas needed for test construction:

<input checked="" type="checkbox"/>	Agricultural Foundations (Required)
-------------------------------------	-------------------------------------

**Select at least two of the following:**

<input type="checkbox"/>	Agricultural Business
<input type="checkbox"/>	Agricultural Mechanics and Technology
<input type="checkbox"/>	Animal Science
<input type="checkbox"/>	Plant Science
<input type="checkbox"/>	Natural Resources Management
<input type="checkbox"/>	Environmental Science
<input type="checkbox"/>	Small Animals
<input type="checkbox"/>	Veterinary Science
<input type="checkbox"/>	Equine Systems
<input type="checkbox"/>	Pending Horticulture

Submit the request to:                      Agricultural Outreach and Education - Testing  
 106 Kennedy Hall  
 Ithaca, NY 14853  
 Cornell University  
 email: [eal86@cornell.edu](mailto:eal86@cornell.edu)  
 fax: 607-255-7905

Submission of request by email, fax, or surface mail is acceptable. Please allow 3 weeks for the request to be processed.

**Student Demonstration:  
General Performance Skills Portfolio  
300 points maximum; 30% of total score**

The student is expected to provide evidence of accomplishments in a wide range of General Performance Skills. The student will prepare a performance assessment portfolio using Activities selected from the Tabs shown below. The portfolio will be evaluated using rubrics provided along with this document. Details on the requirements and scoring of the activities listed below are provided in Appendix B.

<b>Tab A, Employability (All Required)</b>	<b><u>Points, 130</u></b>
1. Career Interest Survey/Analysis -----	10
2. Career plan and goals -----	10
3. Cover letter -----	20
4. Resume -----	30
5. Completed job application -----	10
6. Job Interview -----	30
7. Follow up letter -----	10
8. Reflective analysis -----	10
<b>Tab B, Personal Development (Select from Activities shown)</b>	<b><u>Points (20-100)</u></b>
1. Organization active participation -----	10
OR Organization leadership -----	20
2. Parliamentary procedure -----	10
OR Parliamentary procedure competition -----	20
3. Public speaking -----	10
OR Public speaking competition -----	20
4. Community service -----	20
5. Reflective analysis -----	10
6. Approved optional item <sup>1</sup> -----	20
<b>Tab C, Work Experience (Select from Activities shown)</b>	<b><u>Points (20-100)</u></b>
1. Job shadowing -----	20
2. Unpaid/volunteer work experience <sup>2,3</sup> -----	50
3. Paid work experience <sup>2</sup> -----	50
4. Entrepreneurship experience <sup>2</sup> -----	50
5. Empire Degree -----	50
6. Reflective analysis -----	10
7. Approved optional item <sup>1</sup> -----	20
<b>Tab D, Academic Integration (Select from Activities shown)</b>	<b><u>Points (20-100)</u></b>
1. In-depth research paper for agriculture credit -----	20
2. AgriScience Project -----	30
3. Applied project in agriculture that demonstrates competency in ELA -----	10
4. Applied project in agriculture that demonstrates competency in Math -----	10
5. Applied project in agriculture that demonstrates competency in Science -----	10
6. Applied project in agriculture that demonstrates competency in Social Studies --	10
7. Reflective analysis -----	10
8. Approved optional item <sup>1</sup> -----	20

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<sup>1</sup> For any optional item, the teacher must prepare a scoring rubric and submit it to the Principal for approval.  
<sup>2</sup> The student may select Activity C2 or C3 or C4 or C5 but may NOT receive credit for more than one of these.  
<sup>3</sup> Students who use the State Degree completion to meet the requirements for Section three, Technical Competency, MAY NOT use these activities the

Tabs B, C, and D each allows for one additional optional Activity. The Activity must be developed by agreement between the student and teacher in specific detail and submitted to either the Agricultural Education Advisory Committee or the LEA or BOCES Career and Technical Education administrator for approval.

The General Employability Tab is required in its entirety for all students but the student may *select Activities from the remaining Tabs for a total maximum of 300 points*. Except for Tab A, the student may personalize the portfolio by selecting items from the remaining tabs to fit his or her individual needs. At least 20 points and no more than 100 points must be selected from each of Tabs B, C, and D.

By agreement between the student and teacher, any activity in Tabs B, C, and D may be selected for less than the maximum number of points. For instance, if the entrepreneurship activity for a given student is relatively minor, the student and teacher may agree to allow a maximum of fewer than the 50 points allowed. In no case will more than the specified number of points be allowed for an activity. In no cases may the portfolio include activities totaling more than the maximum points available for a given tab. In no case may the portfolio include General Performance Skills totaling more than 300 allowable points. Note that the actual points earned will not be determined until AFTER the portfolio is submitted and that the total of 300 points is the maximum of possible points that may be submitted. A sample scoring worksheet is provided as Appendix C to this document.

Administration and evaluation of the General Performance Skills Portfolio is a local responsibility. The teacher may elect to have the Agricultural Outreach and Education staff score the portfolio for a nominal fee.

For each Tab and Activity, a description of the required materials and documentation is provided along with a detailed rubric for evaluating the activity. Portfolios are to be evaluated by disinterested parties using the assignment descriptions and rubrics. If the portfolio will be evaluated locally, portfolio evaluators will be nominated by the teacher and approved by the Agricultural Education Advisory Committee or the LEA or BOCES Career and Technical Education administrator. The results of the portfolio evaluations may be appealed to the Agricultural Education Advisory Committee or the LEA or BOCES Career and Technical Education administrator. The decision of the Agricultural Education Advisory Committee or the LEA or BOCES Career and Technical Education administrator will be considered final.

For any Activity in this portfolio, student participation in an analogous FFA Career Development Event (CDE) or appropriate Proficiency Award may be used in lieu of the rubric provided. In all cases, the CDE competition must be in the form of a formal, scheduled, and judged event at the chapter level or higher. In the event chapter-level competition is used for this purpose, the school or BOCES Principal must authorize the substitution of those event scores for the rubrics provided in this document and approve the judges used in the event. For instance, a student who participates in the FFA Job Interview CDE may use his or her Job Interview CDE scores in either of two situations as follows:

1. The competition is a formal Chapter level contest intended to select students to represent the chapter at a higher level of competition, if the Principal authorizes the use of the event results for that purpose and approves the judges.
- OR

2. The competition is conducted at a higher level than Chapter and is operated by or sanctioned by Agricultural Outreach and Education state staff members.

**Student Projects**  
**Technical Competency**  
**300 points maximum**

The student will demonstrate industry-specific skills as related to the chosen career pathway and consistent with the agricultural education curriculum offered locally. The points awarded for a specific competency should roughly reflect the amount of instructional time required to learn, practice, and demonstrate the respective skill, including related safety instruction if relevant. Use the rule, 1 hour (60 minutes) = 2 points. The amount of time includes in-class instruction, assigned homework, and supervised practice outside the classroom and laboratory. The teacher and student will agree on a list of technical competencies, both content (cognitive) and performance (psychomotor) and appropriate points allocated to each competency. The list of competencies will be submitted to either the Agricultural Education Advisory Committee or the LEA or BOCES Career and Technical Education administrator for approval. The accomplishment of each competency will be based on GO-NO GO assessment by the teacher. *Examples of competencies are provided below to provide guidance.* It is anticipated that in most cases, the list of competencies will be the same for all students in a particular program; although, specific exceptions could be negotiated for individual students. A sample competency checklist is provided as Appendix D to this document. Students may (are encouraged to) use the same competencies here as activities in the General Skills Portfolio.

<b>Example Projects/Competencies</b>	<b>Sample Points</b>
A. Fell and buck a tree -----	5
B. Groom a dog -----	5
C. Disassemble and reassemble a small engine -----	10
D. Troubleshoot a small engine with planted faults -----	10
E. Produce genetically identical plants using tissue culture-----	10
F. Plan and conduct a wildlife population survey -----	10
G. Plan and build a welded fence gate -----	10
H. Calibrate fertilizer spreader and apply fertilizer to a field-----	10
I. Pass Pesticide Applicator Certification examination -----	10
J. Prepare a plan for protecting a stream bank from erosion-----	10
K. Operate a tractor -----	20
L. Plant and grow out 100 bedding plants-----	20
M. Plan and install a stream bank erosion protection system -----	25
N. Plan and build a pole barn -----	25
O. Plan and install electrical wiring for a farm structure -----	25
P. Plan, plant, produce, and harvest a home garden -----	25
Q. Plan, plant, market, and manage a corn maze for recreation-----	25
R. Plan and install landscaping for a home or business -----	50
S. Organize and manage a 3-month FFA “adopt-a-park” cleanup program -----	80

**Appendix A**  
**Core Content Outline (Abridged)**  
**Full content lists available online at AO&E Website**

## **I. Agribusiness Systems**

- A Employ leadership skills to accomplish goals and objectives in a business environment.
  - 1 Develop a mission statement to guide business activities effectively
  - 2 Practice good record keeping accomplishing business objectives.
  - 3 Apply generally accepted accounting principles and skills to manage budget, credit, and optimal application of business assets.
  - 4 Use sales and marketing principles to accomplish business objectives.
- B Distinguish between various agribusiness structures.
  - 1 Describe a sole proprietorship and how it operates.
  - 2 Describe a partnership and how it operates.
  - 3 Describe a corporation and how it operates.
  - 4 Describe a cooperative and how it operates.
  - 5 Describe alternative enterprises.
- C Analyze the elements of America's market economy in a global setting.
  - 1 Understand the relationship of the concept of incentives to the law of supply and the relationship of the concept of incentives and substitutes to the law of demand.
  - 2 Explain the roles of property rights, competition, and profit in a market economy.
  - 3 Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.
  - 4 Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.
  - 5 Identify careers in the agribusiness system.

## **II. Animal Systems**

- A Apply knowledge of anatomy and physiology to produce and/or manage animals in a domesticated or natural environment.
  - 1 Use classification systems to explain basic functions of anatomy and physiology.
  - 2 Analyze a subject animal to determine the nature of its health status
- B Recognize animal behaviors to facilitate working with animals safely
  - 1 Develop a safety plan for working with a specific animal
- C Provide proper nutrition to maintain animal performance.
  - 1 Examine animal developmental stages to comprehend why nutrient requirements are different throughout an animal's life cycle.
- D Know the factors that influence an animal's reproductive cycle to explain species response.
  - 1 Analyze elements in the reproductive cycle to explain differences between male and female reproductive systems.
  - 2 Discuss reproductive cycles to show how they differ from species to species.
  - 3 Evaluate an animal to determine its breeding soundness.
- E Identify environmental factors that affect an animal's performance.
  - 1 Recognize optimum performance for a given animal.
  - 2 Assess an animal to determine if it has reached its optimum performance level.
- F Animal Issues
  - 1 Identify and discuss major issues impacting the animal production industry today.
  - 2 Compare and contrast animal rights v. animal welfare.
- G Identify careers in animal systems
  - 1 Identify careers associated with animals and animal systems.

## **III. Environmental Systems**

- A Identify public policies and regulations impacting environmental services to determine their effect on facility operation.
  - 1 Consult reliable resources or training to identify the major laws impacting environmental services.
- B Apply scientific principles to environmental services.
  - 1 Describe soil compositions and properties to demonstrate knowledge of soil science.
  - 2 Describe the basic principles of water.
- C Planning and Managing Land Use
- D Explain zoning classifications.
  - 1 Explain effects of zoning.
  - 2 Classify land zoning according to its capability to produce.
  - 3 Describe how agriculture and environment are integrated.
  - 4 Describe a conservation district.
- E Define sustainability in agriculture and food systems
  - 1 Define the term “sustainable”
  - 2 Distinguish between the goals and the practices used to achieve the goals of sustainable agriculture and food systems.
  - 3 Demonstrate awareness of economic, environmental, and community impacts of agriculture.
- F Evaluate pollution management and prevention plans.
  - 1 Identify types of pollution
  - 2 Identify presence of pollution
  - 3 Describe environmental impact from industrial and non-industrial processes.
  - 4 Describe remediation plans to control pollution and allowing a safer environment.
- G Make connections linking population and the environment.
  - 1 Examine the interrelationships among physical earth processes, ecosystems, and human activities.
  - 2 To explore the variation in quality of life in selected countries
  - 3 Understand ecological interactions and interdependence between humans and their resource demands on environmental systems.
- H Natural areas and biological connections
  - 1 Investigate and describe the identifying characteristics of renewable and non-renewable resources.
  - 2 Describes the natural processes that must be understood in order to manage and protect the Earth's biological diversity.
- I Identify careers in environmental systems.

#### **IV. Equine Systems**

- A History and Development of Animals
- B Equitation
- C Breeds, Types, and Classes of Horses
- D Biomechanics of Movement
- E Unsoundness
- F Status and Future of the Horse Industry
- G Determining Age, Height, and Weight of Horses
- H Selecting and Judging
- I Functional Anatomy
- J Career Opportunities
- K Health Management
- L Parasite Control
- M Horse/Animal Behavior and Training
- N Cells, Tissues, and Organs
- O Genetics
- P Reproduction and Breeding

- Q Digestion and Nutrition
- R Feeds and Feeding
- S Shoeing and Hoof Care
- T Common Management Practices
- U Buildings and Equipment
- V Business Aspects
- W Identify careers in the equine systems.

## **V. Foundations**

### **A. Basic Agriculture Knowledge**

1. Agriculture Sector
2. Exhibit a basic understanding of the history and development of agriculture in the United States.
3. Explain the role and importance that agriculture plays in our economy.
4. Identify the diversity of agriculture careers available in the agriculture Industry.
5. Explain the three major components (FFA, SAE, and Classroom Instruction) of the overall agriculture education program.
6. Describe the importance of soil to human existence.
7. Identify the physical characteristics of soil and how they affect land use classification.
8. Analyze land use classification and soil conditions and make recommendations for crop use and possible conservation improvement practices.
9. Explain photosynthesis and the environmental factors that influence plant growth.
10. Identify some common ornamental and agricultural plants grown in your community.
11. Describe sexual and asexual plant reproduction and the environmental factors that affect plant reproduction.
12. Identify common pests that affect plants and how to control those pests through Integrated Pest Management (IPM).
13. Explain the safety precautions to follow when using chemical pesticides and the governmental regulations that apply to their use.
14. Apply basic accounting practices to their SAE projects including recording and tracking hours worked, income, expenses, and inventory.
15. Calculate simple interest, identify different types of loans, and describe what a "Credit Report" contains.
16. Explain and use problem solving techniques as they apply to their SAE projects.
17. Describe the concepts of Supply and Demand and calculate break-even points.
18. Develop and interpret balance sheets.
19. Define the four functions of management.
20. Give examples of financial, production, labor, and maintenance records kept in agricultural businesses.
21. Identify human, capital, labor, and natural resources used in a business.
22. Explain the basic safety procedure to follow in an agriculture shop or lab.
23. Identify various hand and power tools used in agriculture and describe their safe use.
24. Construct a small project using the appropriate mechanical skills necessary to perform basic carpentry, electricity, and masonry.
25. Explain the safe operation of an arc welder and perform basic welding tasks.
26. Explain how electricity is generated and the path it follows from the power plant to a farm.
27. Calculate electrical energy usage and make suggestions on how to conserve electrical energy.
28. Wire simple electrical switches, lights, and receptacles.
29. Conduct a simple Experimental Research project to test a hypothesis.
30. Identify various agriculture "Products", their origin and uses.
31. Explain the relationship agriculture practices have with our environment and how agricultural practices have effected our environment in the past.

32. Give a basic description of the water, nitrogen, and carbon cycles and how they influence soil fertility.
33. Identify various types of point and non-point pollution and how it affects soil and ground water.
34. Describe "Green house Gases" and how fossil fuel emissions are affecting our environment.
35. Identify Alternative Energy Sources that can ease our dependence on fossil fuels.
36. Explain major career pathways in agricultural education.

**B. FFA**

1. Explain how youth development through the National FFA Organization is an integral part of the overall agriculture education program.
2. Discuss the history of the FFA organization and identify key points in the organizations history.
3. Explain what the letters FFA stand for and recite the mission statement.
4. Explain the structure of the FFA Organization and how the local chapter fits into that structure.
5. Identify and explain the FFA emblem, motto, colors, salute, and creed.
6. Identify and explain the levels of membership and degrees in the FFA.
7. Describe the FFA "Official Dress" and its purpose.
8. Conduct an official FFA meeting using parliamentary procedure.
9. Obtain the chapter FFA degree.
10. Participate in Community Service projects.
11. Participate in the development of the FFA Chapter's Program of Activities.
12. Become an active member of the local FFA Chapter.

**C. Supervised Agriculture Experience (SAE):**

1. Explain how SAE projects are an integral part of the overall agriculture education program.
2. Develop a career plan that includes participation in SAE projects that will support that plan.
3. Use an SAE record keeping system to track and monitor their progress in their SAE project areas.
4. Use their SAE projects to explore career options.
5. Develop skills and competencies, through their SAE projects, that support their career choices.
6. Use their SAE projects to obtain degrees in the FFA Organization.
7. Apply for FFA proficiency Awards.
8. Participate in FFA Career Development Events that support their SAE projects and career interests.

**D. Identify careers in the agriculture and natural resources sector.**

**VI. Natural Resource Systems**

- A** Apply scientific principles to natural resource management activities.
- 1 Examine biological and physical characteristics to identify and classify natural resources
  - 2 Examine natural cycles and related phenomena to describe ecologic concepts and principles.
- B** Employ knowledge of natural resource industries to describe production practices and processing procedures.
- 1 Describe how natural resource products are produced, harvested, processed and used.
- C** Identify diseases commonly found in the field of natural resources.
- 1 Recognize symptoms of animal and plant diseases and use appropriate techniques to prevent their spread.
  - 2 Recognize insect types and available controls to prevent insect infestation.

- D Recognize importance of resource and human interrelations to conduct management activities in natural habitats.
  - 1 Identify resource management components to establish relationships in natural resource systems
  - 2 Employ environmental and wildlife knowledge to demonstrate natural resource enhancement techniques.
- E Understanding Urban Ecosystems
  - 1 Explain how urban forests fit into an urban ecosystem.
  - 2 List and identify benefits of urban forests.
  - 3 Identify plant species appropriate to urban development.
- F Identify non-renewable resources and suggest strategies for conservation and preservation
  - 1 Identify non-renewable natural resources
- G Identify careers in the natural resources systems.
  - 1 Investigate the diversity of careers in the natural resources area.
  - 2 Identify career opportunities and the educational requirements in the natural resource management field.

## **VII. Plant Systems**

- A Apply principles of anatomy and physiology to produce and manage plants in both a domesticated and a natural environment.
  - 1 Analyze and evaluate nutritional requirements and environmental conditions
  - 2 Examine data to evaluate and manage soil/media nutrients.
  - 3 Explain and use basic methods for reproducing and propagating plants.
  - 4 Develop a plan for integrated pest management.
- B Address taxonomic or other classifications to explain basic plant anatomy and physiology.
  - 1 Examine unique plant properties to identify/describe functional differences in plant structures including roots, stems, flowers, leaves and fruit.
  - 2 Classify plants based on physiology for taxonomic or other classifications.
- C Apply fundamentals of production and harvesting to produce plants.
  - 1 Apply fundamentals of plant management to develop a production plan.
  - 2 Apply fundamentals of plant management to harvest, handle and store crops.
- D Analyze the importance of plants with relation to governmental policy and the Global Food Systems.
  - 1 Define global food systems.
  - 2 Discuss policies, laws, and the administration of plant sciences.
  - 3 Discuss the advancements in biotechnology in relation to plant sciences.
- E Identify careers in plant systems.

## **VIII. Power, Structural, and Technical Systems**

- A Power
  - 1 Principles of operation maintenance
  - 2 Principles of service and repair
- B Structural
  - 1 Exercise basic skills in blueprint and design development to create sketches, drawing and plans
  - 2 Examine structural requirements to estimate project costs
  - 3 Develop skills required to use construction/fabrication equipment and tools.
  - 4 Plan, implement, manage, and/or provide support services to facility design and construction; equipment design, manufacture, repair, and service; and agricultural technology.
- C Technical
  - 1 Employ appropriate techniques to demonstrate application of GIS/GPS system principles
  - 2 Measure with selected instruments to demonstrate knowledge of basic electricity

- 3 Reference electrical drawings to design, install, and troubleshoot control systems
- D Science
  - 1 Relate power generation to energy sources
- E Identify careers in the power, structural, and technical systems.

## Horticulture

To Be Added

## IX. Small Animal Care and Veterinary Science Curriculum Outlines

Neither Small Animal Care nor Veterinary Science is a designated Career Pathway. However, both are increasingly popular offerings in agricultural education. That is particularly true in Virginia where the numbers of small animal care and veterinary science programs have been increasing steadily for at least 10 years. The Agricultural Education Specialist at the Virginia Department of Education requested the assistance of our team in developing test item data banks for both of those specialty content areas, in exchange for which we (NY State) would be allowed to use the questions for our own programs. The content for both of these areas was based on the respective approved competency lists that are available on the following Virginia Department of Education web sites:

[http://www.cteresource.org/verso2/public/tasklist/agricultural\\_education/small\\_animal\\_care\\_i/2008/8083-18](http://www.cteresource.org/verso2/public/tasklist/agricultural_education/small_animal_care_i/2008/8083-18)

[http://www.cteresource.org/verso2/public/tasklist/agricultural\\_education/veterinary\\_science/2008/8088](http://www.cteresource.org/verso2/public/tasklist/agricultural_education/veterinary_science/2008/8088)

If either of the hot links above does not work, try cutting and pasting the entire link in your browser. If that fails you can access these documents by contacting the Virginia CTE Resource Center, 2002 Bremono Road • Lower Level • Henrico, VA 23226 • Ph: 804-673-3778 • Fax: 804-673-3798, Email: info@cteresource.org.

**Appendix B**  
**General Performance Skills Portfolio**

**I. Portfolio Tabs and Activities**

**Tab A, Employability**

To complete the Employment portion of the General Performance Skills portfolio, the student must either identify an existing job OR the teacher must construct an appropriate scenario for such a job. The scenario, whether real or hypothetical, used as the basis for the employment portfolio must be appropriate to the career pathway for which the agricultural education is designed and should be consistent with the student’s education career goals. The scenario will include a job announcement or position description and a blank job application form.

Given the scenario described above, the student will prepare and submit a complete employment portfolio and participate in an actual or simulated job interview.

Activities to be evaluated include:	<u>Points (125)</u>
1. Career Interest Survey/Analysis -----	10
2. Career plan and goals -----	10
3. Cover letter -----	20
4. Resume -----	30
5. Completed job application -----	10
6. Job Interview -----	30
7. Follow up letter -----	10
8. Reflective analysis -----	10

**Tab B, Personal Development**

To complete the Personal Development portion of the General Performance Skills Portfolio, the student must select at least 20 points worth of activities and may select up to 100 points worth of activities. The only activity that is mandatory is the reflective analysis, Activity B-5. By agreement with the teacher, the student may undertake any activity in this tab for less than the maximum number of points allowed (see below). The student may not undertake an activity for more than the maximum number of points allowed (see below).

For each activity selected, the student will prepare a summary document that details his or her accomplishments under the respective activity, and that provides student reflections on what he or she learned from the activity. Documentation may be provided to substantiate the student’s claims of accomplishments. Examples of documentation could include minutes of meetings, lists of committee members, programs, photographs, and copies of written speeches.

Activities that may be selected to be evaluated include:	<u>Points (20-100)</u>
1. Organization active participation -----	10
OR Organization leadership -----	20
2. Parliamentary procedure -----	10
OR Parliamentary procedure competition -----	20
3. Public speaking -----	10
OR Public speaking competition -----	20
4. Community service -----	20
5. Reflective analysis -----	10

6. Approved optional item<sup>4</sup> -----20

**Tab C, Work Experience**

To complete the Work Experience portion of the General Performance Skills portfolio, the student must select at least 20 points worth of activities and may select up to 100 points worth of activities. The only activity that is mandatory is the reflective analysis, Activity C-5. By agreement with the teacher, the student may undertake any activity in this tab for less than the maximum number of points allowed (see below). The student may not undertake an activity for more than the maximum number of points allowed (see below).

For each activity selected, the student will prepare a summary document that details his or her accomplishments under the respective activity and provides student reflections on what he or she learned from the activity. Documentation must be provided to substantiate each of the student’s claims of accomplishments. Examples of documentation could include records of hours, training agreements, income statements, written supervisor performance reviews, written teacher performance reviews, photographs, and business records for entrepreneurship activities.

Activities that may be selected to be evaluated include:	<u>Points (20-100)</u>
1. Job shadowing -----	20
2. Unpaid/volunteer work experience <sup>5</sup> -----	50
3. Paid work experience <sup>9</sup> -----	50
4. Entrepreneurship experience <sup>9</sup> -----	50
5. Empire Degree <sup>9</sup> -----	50
6. Reflective analysis -----	10
7. Approved optional item <sup>6</sup> -----	20

**Tab D, Academic Integration**

To complete the Academic Integration portion of the General Performance Skills portfolio, the student must select at least 20 points worth of activities and may select up to 100 points worth of activities. The only activity that is mandatory is the reflective analysis, Activity D-7. By agreement with the teacher, the student may undertake any activity in this tab for less than the maximum number of points allowed (see below). The student may not undertake an activity for more than the maximum number of points allowed (see below).

For each activity selected, the student will prepare a summary document that details his or her accomplishments under the respective activity, and that provides student reflections on what he or she learned from the activity. Documentation must be provided to substantiate each of the student’s claims of accomplishments. Examples of documentation could include copies of papers, rating sheets on oral presentations, photos of an agriscience poster on display, judges rating sheets, copies of news articles in print, transcripts or recordings of radio or TV appearances, or copies of brochures.

Activities that may be selected to be evaluated include:	<u>Points (20-100)</u>
1. In-depth research paper for agriculture credit-----	20
2. AgriScience Project-----	30
3. Applied project in agriculture that demonstrates competency in ELA -----	10
4. Applied project in agriculture that demonstrates competency in Math -----	10
5. Applied project in agriculture that demonstrates competency in Science -----	10
6. Applied project in agriculture that demonstrates competency in Social Studies	10

<sup>4</sup> For any optional item, the teacher must prepare a scoring rubric and submit it to the Principal for approval.  
<sup>5</sup> The student may select Activity C2 or C3 or C4 or C5 but may NOT receive credit for more than one of these.  
<sup>6</sup> For any optional item, the teacher must prepare a scoring rubric and submit it to the Principal for approval.

- 7. Reflective analysis ----- 10
- 8. Approved optional item<sup>10</sup> ----- 20

**II. Evaluation of Activities**

**A. Evaluation using rubrics provided**

1. Evaluators will be nominated by the teacher and must be approved by the school principal.
2. Evaluators will use the rubrics provided.
3. Criterion ratings must be in whole integers, i.e., no decimals (such as 2.5) may be awarded.
4. Each criterion will be rated using the scale as follows:
  - o **Unsatisfactory** – The item is missing or is done so poorly that it would reflect badly on the student or the program
  - o **Basic** – The performance is minimally acceptable but is below the level one would reasonably expect of a high school senior
  - o **Proficient** – The performance is about what one should reasonably expect of an average high school senior.
  - o **Exemplary** – The performance is well above average and exceeds what one could reasonably expect of a high school senior.
5. The score for the activity will be the sum of the criterion scores for that activity.
6. Scores below 50% of the maximum on individual activities in the portfolio are acceptable, but to pass the Employment Portfolio requirement, the student must score at least 50% of the total of 300 points allowed.

**B. Use of locally developed rubrics**

1. Many teachers have developed rubrics for these specific activities. If locally developed rubrics are available, they may be used instead of the rubrics provided in this *Implementation Manual* if they are approved by the school principal.
2. If locally developed rubrics are used, the score on the local rubric must be converted to correspond to the equivalent score allowed for the activity in this document. That conversion can be accomplished by using the formula below:

$$\frac{(\text{Local Rubric Score})}{(\text{Local Rubric Maximum})} \times (\text{Portfolio Maximum Score}) = (\text{Portfolio Score})$$

Example: A local rubric is used to score the student's Resume. That local rubric uses a 100 point maximum. The rubric provided in this Manual allows 30 points for the Resume.

Suppose on the local rubric, the student scores 78 points. The converted score would be computed as follows:

(78 / 100) X 30 = 23.4 points on the Resume activity

**C. Use of FFA CDE or Proficiency Award results in lieu of the rubrics**

1. FFA CDE or Proficiency Award results may be used only for formal, scheduled, approved chapter-level competition or for AO&E staff sanctioned competition above the chapter level.
2. If FFA CDE or Proficiency results are used to meet the requirements of this section of the portfolio, copies of the relevant official score sheets must be secured and submitted in lieu of

scored rubrics. Student score sheets are not routinely returned at CDE events, so the teacher must arrange in advance with the CDE coordinator to request duplicate score sheets for the student(s) involved. The student's total score from the official CDE score sheet will be converted to the appropriate points. Use the following formula to transform raw scores on locally developed rubrics and CDE score sheets:

**(CDE Score)**  
----- X **(Portfolio Maximum Score) = (Portfolio Score)**  
**(CDE Maximum)**

The FFA CDE score sheet allows for a maximum score of 1,000 points In the CDE competition for Job Interview, the student's total score = 680. This section of the portfolio allows for a maximum of 130 points (see above)

The converted score would be computed as follows:

$(680 / 1000) \times 130 = \boxed{88.4}$  points on the Employability section of the portfolio.

**D. Determination of what is "Appropriate."**

1. Throughout this document, numerous rubrics use the term "appropriate." In the final analysis, what is considered appropriate must be in the judgment of the portfolio evaluator.
2. The teacher may wish to discuss the selection of "appropriate" documents, such as an appropriate career interest survey, with the Advisory Committee or school principal in advance or with the portfolio evaluator(s) before the portfolio is submitted to them.

**III. Assignment Sheets/Rubrics (following pages)**

Activity: Personal Career Interest Survey/Analysis (10 points maximum)

The student will complete a career interest survey and prepare a brief analysis of its implications for him/her in subsequent education and career planning. Use of existing paper and online templates and/or checklists for the career interest survey is encouraged.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Appropriate career interest survey	Failed to use appropriate career interest survey  0 pts		Used appropriate career interest survey  1 pt		
Completeness and accuracy	Survey is not completed  0 pts	Survey has some missing or inaccurate information  1 pt	Survey is complete but appears to have some inaccuracies  2-3 pts	Survey is complete and appears accurate  4 pts	
Analysis of personal skills/characteristics and career characteristics/requirements	Student provided no analysis of implications of the survey results to his/her educational or career planning  0 pts	Student provided minimal analysis of implications of the survey results to his/her educational or career planning  1 pt	Student provided appropriate analysis of implications of the survey results to either his/her educational or career planning  2-3 pts	Student provided appropriate analysis of the implications of the survey results to both his/her educational or career planning  4 pts	
Professional Appearance	Documents not neat and professional in appearance  0 pts		Documents are neat and professional in appearance  1 pts		
Points Earned					

Activity: Career Plan and Goals (10 points maximum)

The student will prepare a statement of career goals and a career plan that takes into account the skills inventory and self analysis. Use of existing templates and/or checklists is permitted.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Career plan and goals take into account career interests	Makes no attempt to consider career interests  0 pts	Considers career interests but probably unrealistic  1 pt	Realistically considers career interests but plan may not be achievable  2 pts	Realistic and achievable plan and goals clearly take career interests into account  3 pts	
Career goals appear to be logical and realistic	Career goals missing or completely vague  0 pts	Career goals are clear obviously unrealistic  1 pt	Career goals are clear and reasonably realistic but incompletely thought out  2 pts	Career goals are clear, realistic, and well thought out  3 pts	
Career plan is built around goals	Career plan is missing or completely vague  0 pts	Career plan is understandable but would not achieve stated goals  1 pt	Career plan is understandable and might achieve stated goals, but lacks completeness  2 pts	Career plan is complete, understandable, and lays out a logical route to achieving stated goals  3 pts	
Professional Appearance	Documents not neat and professional in appearance  0 pts		Documents are neat and professional in appearance  1 pts		
Points Earned					

Activity: Cover Letter (20 points maximum)

The student will write a complete cover letter to accompany his or her application for a job. A hypothetical job announcement or job description will be supplied by the teacher or the student and teacher may select an actual job announcement or description for which the student would be qualified.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Relates to specific job	Makes no attempt to consider job requirements  0 pts	Mentions specific job and requirements but probably unrealistic  1-2 pts	Realistically considers job requirements but fails to connect personal strengths and weaknesses  3-4 pts	Realistically considers job requirements and relates personal strengths and weaknesses to job requirements  5 pts	
Relates to personal strengths	No attempt to relate personal characteristics/background to job requirements  0 pts	Mentions personal characteristics/background but fails to link directly to job  1-2 pts	Vaguely relates personal characteristics/background to job  3-4 pts	Clearly relates personal characteristics and background to job, giving detailed examples  5 pts	
Attention getting	Letter would attract attention, but in a negative way  0 pts	Letter would not attract attention of employer either positively or negatively  1-2 pts	Letter would attract employer's attention but does not stand out  3-4 pts	Letter is catchy and innovative, would add to employer's interest in the applicant  5 pts	
Writing and clarity	Grammar, spelling, or punctuation errors are present  0 pts	Grammar, spelling, and punctuation are acceptable but poorly worded, unrealistic, and not convincing  1 pts	Grammar, spelling, and punctuation are acceptable and well worded but unconvincing  2-3 pts	Grammar, spelling, and punctuation are acceptable, well worded, realistic, and convincing  4 pts	
Professional Appearance	Letter not neat and professional in appearance  0 pts		Letter neat and professional in appearance  1 pts		
Points Earned					

Activity: Resume (30 points maximum)

The student will prepare a complete resume based on his or her actual employment and educational record and considering his or her personal skills inventory and self analysis and career goals and plan. The resume should be tailored to the specific job that will form the basis for the activities in this tab. Use of existing templates and/or checklists is permitted.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Personal and contact information	Missing or unacceptable 0 pts	Difficult to interpret or incomplete 1 pts	Complete and clear  2 pts		
Career goals	Missing or unacceptable 0 pts	Difficult to interpret or incomplete 1 pts	Complete, clear but not directly related to job company 2 pts	Complete, clear, directly related to job and company 3 pts	
Educational attainment and employment history	Missing or unacceptable 0 pts	Complete but unclear and not well organized 1-2 pts	Complete, clear, logically organized but unexceptional  3-4 pts	Complete, clear, logically organized, stands out when compared to peers 5-6 pts	
Leadership and participation	Missing or unacceptable 0 pts	Complete but not well organized  1-2 pts	Complete and clear, well organized but fails to relate to job or company 3-4 pts	Complete and clear, well organized and related clearly to job and company 5-6 pts	
Personal traits and interests	No direct references to personal traits and interests 0 pts	Incomplete or not related to job requirements  1-2 pts	Complete and clear, but unclear how traits and interests relate to job or company  3-4 pts	Complete and clear, intentionally relates to job and company  5-6 pts	
Tailored to specific job	No apparent attempt to link the resume to the specific job or company involved  0 pts	Includes the job title or company name in the resume but provides little evidence of preparation for specific job  1-2 pts	Refers to job title and and/or company name in a career goal or objective statement and provides clear evidence of preparation for one or more aspects listed in job announcement 3-4 pts	Provides clear evidence of experience and/or education directly relevant to the job requirements in such a way as to make the resume positively stand out from others 5-6 pts	
Professional Appearance	Not neat and professional in appearance  0 pts		Neat and professional in appearance  1 pts		
Points Earned					

Activity: Completed Job Application (10 points maximum)

The student will prepare a completed job application. A hypothetical application form may be provided by the teacher as a part of the scenario for this set of activities or the student and teacher may select an actual job for which the student would be qualified and use the employer’s standard job application form.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Completeness and accuracy	Incomplete AND some answers provided are not understandable  0 pts	Incomplete OR some answers provided are not understandable  1 pt	Complete and all answers provided are understandable, but unremarkable  2 pts	Complete, understandable, and of such quality that the application would stand out from others  3 pts	
Responsiveness to questions and requirements	Many responses are not responsive to the actual questions asked or requirements  0 pts	One or more responses are not responsive to actual questions or requirements  1 pt	Student provides the information requested accurately, but responses are unremarkable  2 pts	Responses are appropriate, accurate, and of such quality that the application would stand out from others  3 pts	
Professional appearance of application	Appearance is not professional or has numerous grammar errors  0 pts	Appearance needs a lot of work. May have a few grammar errors  1 pt	Appearance is acceptable. Organization is good. Well thought out. Almost no grammar errors  2-3 pts	Appearance of document gives the impression of much thought and solid work. Well organized. No grammar errors  4 pts	
Points Earned					

Activity: Job Interview (30 points maximum)

Given a job announcement or job description and having completed a job application, the student will participate in a job interview. The job may be real or hypothetical. The interviewer may be an actual employer or representative of an employer, or a suitable person selected by the teacher to role play as an employer. The interviewer will provide a completed rubric and a brief written reaction to the interview.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Speech and poise	Fails to communicate effectively 0 pts	Communicates effectively; speech & poise acceptable. 1-2 pts	Communicates effectively; speech and poise unremarkable. 3-4 pts	Communicates effectively to the point that the student stand out above others. 5 pts	
Attitude and personality	Lacks poise, forcefulness, sincerity and appropriate temperament. 0 pts	Attitude and personality adequate but unimpressive. 1-2 pts	Attitude and personality appropriate but .not exceptionally strong. 3-4 pts	Poise, forcefulness, sincerity, and temperament stand out above peers. 5 pts	
Ability to convince and impress interviewer	Fails to provide convincing or impressive responses. 0 pts	Provides minimal evidence of ability to convince and impress interviewer 1-2 pts	Adequately impressive and convincing to hire, unless stronger candidate were available. 3-4 pts	Impressive and convincing; additional interviews would be unnecessary 5 pts	
Reliability	Provides no evidence to indicate frankness, consistency, and accuracy. 0 pts	Appears to be minimally frank, consistent, and accurate; interviewer would probably not hire. 1-2 pts	Adequate frankness, consistency, and accuracy; but does not stand out 3-4 pts	Stands out to the point that additional interviews would be unnecessary unless already scheduled. 5 pts	
Knowledge and presentation	Education and experience inadequate. 0 pts	Education and experience are minimally adequate. 1-2 pts	Education and experience are adequate but unremarkable. 3-4 pts	Education and experience are exceptional; stands out from peers. 5 pts	
Appropriate dress and grooming	Dress and/or grooming inappropriate 0 pts	Dress and/or grooming need work 1-2 pts	Dress and/or grooming adequate but not remarkable 3-4 pts	Dress and grooming exceptional 5 pts	
Points Earned					

Activity: Follow-up Letter (10 points maximum)

The student will write a complete follow up letter to his or her application for a job. The student will prepare and include a brief reflective analysis with particular emphasis on what he or she learned from the activity.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Relates to interview	Makes no attempt to relate to company or interview  0 pts	Mentions specific job interview and company but fails to personalize  1 pt	Mentions specific job interview and company and mentions details of the interview  2 pts	Mentions specific job interview and company, mentions details of the interview and individuals involved  3 pts	
Writing and clarity	Grammar, spelling, or punctuation errors are present  0 pts	Grammar, spelling, and punctuation are acceptable but poorly worded, unrealistic, and not convincing  1 pt	Grammar, spelling, and punctuation are acceptable and well worded but unconvincing  2 pts	Grammar, spelling, and punctuation are acceptable, well worded, realistic, and convincing  3 pts	
Professional appearance of letter	Appearance is not professional or has numerous grammar errors  0 pts	Appearance needs a lot of work. May have a few grammar errors  1 pt	Appearance is acceptable. Organization is good. Well thought out. Almost no grammar errors  2-3 pts	Appearance of document gives the impression of much thought and solid work. Well organized. No grammar errors  4 pts	
Points earned					

Activity: Reflective Analysis (10 points maximum)

The student will prepare a reflective analysis on what he or she learned from the activities completed for this Tab.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Reflections	Student failed to provide meaningful reflections regarding learning from these activities  0 pts	Reflections are provided but provide little insight into lessons learned  1-2 pts	Reflections are provided and provide insight into lessons learned  3 pts	Reflections provide insight into lessons learned and analyze those insights in terms of implications for the future  4 pts	
Written document	Document is poorly written, unclear, or contains numerous errors in grammar, punctuation, or syntax  0 pts	Document is adequately written and contains minimal errors  1-2 pts	Document is well written, clear, and free of errors but lacks clear organization or focus  3 pts	Document is well written, clear, well organized, and focused  4 pts	
Comprehensiveness	Reflections do not refer to all activities attempted in this tab  0 pts	Reflections at least superficially refer to all activities attempted in this tab  1 pt		Reflections meaningfully include all activities attempted in this tab  2 pts	
Points Earned					

Activity: Organization<sup>8</sup> Active Membership (10 points maximum)

The student will prepare documentation to demonstrate his or her active participation as a member of one or more student organizations. The organizations may include FFA but that is not required. The organizations may or may not be school related, but in all cases must be youth organizations rather than adult organizations.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	
Membership	Pays dues but participates minimally  0 pts	Pays dues, attends some meetings  1 pt	Pays dues, attends most meetings but does not take active role  2 pts	Pays dues, participates actively in meetings  3 pts	
Committees	Does not serve on any committees  0 pts	Actively serves on one or more committees  1 pt	Chairs one or more committees  2-3 pts	Serves on multiple committees, chairs one or more  4 pts	
Social activities	Does not attend organization social activities  0 pts	Attends organization social activities  1 pt	Helps organize organization social activities  2 pts	Helps organize social activities in more than one organization  3 pts	
Points Earned					

<sup>7</sup> Students may elect to use either Organization Active Participation or Organization leadership as part of their General Skills Portfolio, but may not use both.

<sup>8</sup> May include but is not limited to FFA.

Activity: Organization<sup>10</sup> Leadership (20 points maximum)

The student will prepare documentation to demonstrate his or her active participation as a leader of one or more student organizations. The organizations may include FFA but that is not required. The organizations may or may not be school related, but in all cases must be youth organizations rather than adult organizations.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Membership	Pays dues but participates minimally  0 pts	Pays dues, attends some meetings  1 pt	Pays dues, attends most meetings but does not take active role  2 pts	Pays dues, participates actively in meetings  3 pts	
Committees	Does not serve on any committees  0 pts	Actively serves on one or more committees  1 pt	Chairs one or more committees  2-3 pts	Serves on multiple committees, chairs one or more  4 pts	
Social activities	Does not attend organization social activities  0 pts	Attends organization social activities  1 pt	Helps organize organization social activities  2 pts	Helps organize social activities in more than one organization  3 pts	
Competitive events	Has not competed in any events  0 pts	Has competed in one or more local events  1-2 pt	Has won one or more local events and competed at least once above local level  3-4 pts	Has competed in multiple events above local level  5 pts	
Leadership	Has served in no appointed or elected leadership positions  0 pts	Has chaired at least one committee  1-2 pts	Has run for office or served as an elected officer in one organization  3-4 pts	Has served as an elected officer and/or run for office in more than one organization or above local  5 pts	
Points Earned					

<sup>9</sup> Students may elect to use either Organization Active Participation or Organization leadership as part of their General Skills Portfolio, but may not use both.

<sup>10</sup> May include but is not limited to FFA.

Activity: Parliamentary Procedure (10 points maximum)

Student will participate in organizational activities that demonstrate his or her skills in the effective use of parliamentary procedure.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Participation	Is a member of an organization but demonstrates no mastery of parliamentary procedure  0-1 pts	Has actively participated in meetings that required the use of parliamentary procedure  2-5 pts	Has chaired one or more committees that required the use of parliamentary procedure  7-8 pts	Has presided over one or more organization meetings that required the use of parliamentary procedure  9-10 pts	
Points Earned					

Activity: Parliamentary Procedure Competition (20 points maximum)

Student will participate in one or more competitions above the local level that involve scoring his or her skills in the effective use of parliamentary procedure.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Participation	Is a member of an organization but demonstrates no mastery of parliamentary procedure  0-1 pts	Has actively participated in meetings that required the use of parliamentary procedure  2-5 pts	Has chaired one or more committees that required the use of parliamentary procedure  7-8 pts	Has presided over one or more organization meetings that required the use of parliamentary procedure  9-10 pts	
Competition	Has not participated in parliamentary procedure competitions  0-1 pts	Has participated locally in competition involving the use of parliamentary procedure  2-5 pts	Has competed above local level in parliamentary procedure competitions  7-8 pts	Has served on parliamentary procedure team above local level that placed in top half of competition  9-10 pts	
Points Earned					

Activity: Public Speaking<sup>11</sup> (10 points maximum)

The student will deliver one or more formal speeches in public settings. The speeches may be either formally prepared or extemporaneous in nature.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Participation	Has not engaged in public speaking  0-1 pts	Has engaged in at least one public speaking event  2-5 pts	Has frequently engaged in public speaking and demonstrates average ability as a speaker  7-8 pts	Has frequently participated in public speaking in multiple settings and has demonstrated confidence and above average ability as a speaker  9-10 pts	
Points Earned					

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<sup>11</sup> May include either prepared or extemporaneous public speaking.

Activity: Public Speaking<sup>12</sup> Competition (20 points maximum)

The student will deliver one or more formal speeches that involve competition in public settings. The speeches may be either formally prepared or extemporaneous in nature.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Participation	Has not engaged in public speaking  0-1 pts	Has engaged in at least one public speaking event  2-5 pts	Has frequently engaged in public speaking and demonstrates average ability as a speaker  7-8 pts	Has frequently participated in public speaking in multiple settings and has demonstrated above average ability as a speaker  9-10 pts	
Competition or formal presentations to significant groups <sup>13</sup>	Has not participated in public speaking competitions or formal presentations to significant groups  0-1 pts	Has participated locally in public speaking competition or formal presentations to a significant group  2-5 pts	Has competed in public speaking competitions above local level or or formal presentations to a multiple significant group in the local community  7-8 pts	Has competed in public speaking competition above local level and placed in top half of competition or made formal presentations to multiple significant groups beyond the local community <sup>14</sup>  9-10 pts	
Points Earned					

<sup>12</sup> May include either prepared or extemporaneous public speaking.

<sup>13</sup> Significant groups include such organizations as civic clubs (Rotary, Kiwanis, ets), PTA, School Board, etc.

<sup>14</sup> Examples of significant groups beyond the local community might include state legislative hearings, state conventions of civic organizations, etc. As a distinction, discussing items of business or campaign speeches at student organization conventions would NOT be considered public speaking to significant groups.

Activity: Community Service (20 points maximum)

The student will participate in organized community service activities.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Participation	Active member, has not actively participated in community service activity  0 pts	Has actively participated in service events in the local school  1-3 pts	Has actively participated in community service activities outside the local school  4-5 pts	Participates regularly in community service activities at multiple levels  6 pts	
Leadership	Has served in no leadership positions regarding community service activities  0 pts	Has served on one or more community service steering committees  1-3 pts	Has served on and chaired one or more steering committees for community service activities  4-5 pts	Has served on and chaired steering committees for community service activities in multiple settings  6 pts	
Recognition	Has received no recognition for community service  0 pts			Has received formal recognition <sup>16</sup> for community service  6 pts	
Points Earned					

<sup>15</sup> May include but is not limited to FFA.

<sup>16</sup> May include but is not limited to recognition for competitive events relating to community service.

Activity: Reflective Analysis (10 points maximum)

The student will prepare a reflective analysis on what he or she learned from the activities completed for this Tab.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Reflections	Student failed to provide meaningful reflections regarding learning from these activities  0 pts	Reflections are provided but provide little insight into lessons learned  1-2 pts	Reflections are provided and provide insight into lessons learned  3 pts	Reflections provide insight into lessons learned and analyze those insights in terms of implications for the future  4 pts	
Written document	Document is poorly written, unclear, or contains numerous errors in grammar, punctuation, or syntax  0 pts	Document is adequately written and contains minimal errors  1-2 pts	Document is well written, clear, and free of errors but lacks clear organization or focus  3 pts	Document is well written, clear, well organized, and focused  4 pts	
Comprehensiveness	Reflections do not refer to all activities attempted in this tab  0 pts	Reflections at least superficially refer to all activities attempted in this tab  1 pt		Reflections meaningfully include all activities attempted in this tab  2 pts	
Points Earned					

Activity: Job shadowing (20 points maximum)

The student will participate in a job shadowing experience in an agriculture related business, organization, or agency. The job will be approved by the teacher and the job shadowing experience will be under the teacher's general supervision. The student will prepare a written report on the experience and present the report either in class or to the portfolio evaluators.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Quality of experience	Experience was not adequately planned to ensure observations of work at a variety of levels <sup>17</sup> and in a variety of settings <sup>18</sup>  0 pts	Experience was adequately planned but was limited in range of exposure to only one level of work or no more than two settings  1-3 pt	Planned experiences involved job shadowing at multiple levels of work in three or more settings  4-6 pts	Student was exposed to work ranging from unskilled labor to management and involved four or more employment settings  7-8 pts	
Effort involved in experience  (1 point for every 2 hours over 10 hour minimum)	Job shadowing experience involved 10 or fewer clock hours  0 pts	Student participated in up to 11-23 clock hours of job shadowing  1-6 pt	Student participated in up to 24-37 hours of job shadowing  6-13 pts	Student participated in 38 or more hours of job shadowing  14 pts	
Reporting	Written and oral reporting was so limited as to provide little evidence of the quality of the experience or effort involved  0 pts	Student prepared a written report that adequately documented the quality and effort involved  1-3 pts	Student prepared a written report that adequately documented the quality and effort involved and made an oral presentation in class  4-6 pts	Student's written and oral reports were of exceptional quality  7-8 pts	
Points Earned					

<sup>17</sup> Level refers to the nature of the work. For instance were all workers observed working at the level of loading materials for customers or did the student observe workers doing cleaning, loading, shelf stocking, operating cash registers, and performing management tasks?

<sup>18</sup> Setting refers to the nature of the workplace. For instance were all experiences in a warehouse or did the internship involve working in a warehouse, a sales floor, and in the customer parking area?

Activity: Unpaid/Volunteer work experience (50 points maximum)<sup>19</sup>

The student will participate in an unpaid/volunteer work experience in an agriculture related business, organization, or agency. The job will be approved by the teacher and the work experience will be under the teacher's general supervision. The student will prepare a written report on the experience and present the report either in class or to the portfolio evaluators.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Quality of experience	Work experience was not adequately planned to ensure quality experiences at a variety of levels <sup>20</sup> and settings <sup>21</sup>  0 pts	Experiences involved entry level work only or involved no structured training or training agreement  1-2 pts	Experience involved structured training and work beyond purely entry level and a training agreement was developed and signed  3-4 pts	Meets proficiency level and involved more than one level of work, and more than one job setting  5-6 pts	
Effort involved in experience (1 point per 10 clock hours of work experience)	Unpaid/volunteer work experience involved 10 or fewer hours of structured work experience  0 pts	Unpaid/volunteer work experience involved 11 to 100 hours of structured work experience  1-10 pts	Unpaid/volunteer work experience involved 101-200 hours of structured work experience  11-20 pts	Unpaid/volunteer work experience involved 201 or more hours of structured work experience 21-30 pts	
Quality of work	Student failed to meet normal employer expectations  0 pts	Student met minimal employer expectations;  1-2 pts	Student fully met employer expectations  3-5 pts	Student exceeded employer expectations  6-7 pts	
Reporting	Written and oral reporting was so limited as to provide little evidence of the quality of the experience or effort involved  0 pts	Student prepared a written report that adequately documented the quality and effort involved  1-2 pts	Student prepared a written report that adequately documented the quality and effort involved and made an oral report in class or to the portfolio evaluators 3-5 pts	Student's written and oral reports were of exceptional quality  6-7 pts	
Points Earned					

<sup>19</sup> Job shadowing and unpaid/volunteer work experience may not be in the same business, organization, or agency.

<sup>20</sup> Level refers to the nature of the work. For instance were all experiences at the level of loading materials for customers or did the student work at sweeping, taking inventory, and stocking shelves?

<sup>21</sup> Setting refers to the nature of the workplace. For instance were all experiences in a warehouse or did the internship involve working in a warehouse, a sales floor, and in the customer parking area?

Activity: Paid work experience (50 points maximum)

The student will participate in a paid work experience in an agriculture related business, organization, or agency. The job will be approved by the teacher and the work experience will be under the teacher's general supervision. The student will prepare a written report on the experience and present the report either in class or to the portfolio evaluators.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Quality of experience	Work experience was not adequately planned to ensure quality experiences at a variety of levels <sup>22</sup> and settings <sup>23</sup> 0 pts	Experiences involved entry level work only or involved no structured training or training agreement 1-2 pts	Experience involved structured training and work beyond purely entry level and a training agreement was developed and signed 3-4 pts	Meets proficiency level and involved more than one level of work, and more than one job setting 5-6 pts	
Effort involved in experience (1 point per 10 clock hours of work experience)	Unpaid/volunteer work experience involved 10 or fewer hours of structured work experience 0 pts	Unpaid/volunteer work experience involved 11 to 100 hours of structured work experience 1-10 pts	Unpaid/volunteer work experience involved 101-200 hours of structured work experience 11-20 pts	Unpaid/volunteer work experience involved 201 or more hours of structured work experience 21-30 pts	
Quality of work	Student failed to meet normal employer expectations 0 pts	Student met minimal employer expectations; 1-2 pts	Student fully met employer expectations 3-5 pts	Student exceeded employer expectations 6-7 pts	
Reporting	Written and oral reporting were so limited as to provide little evidence of the quality of the experience or effort involved 0 pts	Student prepared a written report that adequately documented the quality and effort involved 1-2 pts	Student prepared a written report that adequately documented the quality and effort involved and made an oral report in class or to the portfolio evaluators 3-5 pts	Student's written and oral reports were of exceptional quality 6-7 pts	
Points Earned					

<sup>22</sup> Level refers to the nature of the work. For instance were all experiences at the level of loading materials for customers or did the student work at sweeping, taking inventory, and stocking shelves?

<sup>23</sup> Setting refers to the nature of the workplace. For instance were all experiences in a warehouse or did the internship involve working in a warehouse, a sales floor, and in the customer parking area?

Activity: Entrepreneurship experience (50 points maximum)

The student will plan, initiate, and manage an agriculture related business operation. The student will have partial or full ownership of the business, maintain all appropriate records, make business decisions, and assume associated business risks.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Appropriateness of experience	Not related to agriculture program and/or not supervised by agriculture teacher 0 pts	Related to agriculture program and supervised by agriculture teacher 1-4 pts	Meets basic level and was directly related to student's career goals and plan 5-8 pts	Meets proficiency level and involved regular supervision visits by the agriculture teacher 9 pts	
Quality of experience	Entrepreneurship experience was not adequately planned and/or student did not hold any financial ownership 0 pts	Entrepreneurship experience was adequately planned; student held at least partial ownership 1-4 pts	Meets basic level; a formal training agreement was developed, signed, and followed 5-8 pts	Meets proficiency level; Student responsible for planning, business decisions, implementation, and evaluation 9 pts	
Effort involved in experience	Student logged, recorded, and substantiated less than 80 clock hours of self labor 0 pts	Student logged, recorded, and substantiated 80-149 clock hours of self labor 1-4 pts	Student logged, recorded, and substantiated 150-299 clock hours of self labor 5-8 pts	Student logged, recorded, and substantiated 300 or more clock hours of self labor 9 pts	
Record keeping	Recordkeeping was not adequate to establish a net profit statement based on at least costs and expenses, including fixed costs. 0 pts	Recordkeeping was adequate to establish a net profit statement based on at least costs and expenses, including fixed costs 1-4 pts	Meets basic level; records included analysis of inventory, depreciation, and net worth statement 5-8 pts	Meets proficiency level; records reviewed regularly by agriculture teacher and served as structured part of classroom instruction and grading 9 pts	
Quality of work	Student failed to meet normal expectations of a reasonable entrepreneur 0 pts	Met minimal reasonable entrepreneurial expectations; operated from a business plan 1-4 pts	Met basic level; maintained and routinely re-assessed business plan based on ongoing evaluation 5-8 pts	Demonstrated excellent business planning and management skills 9 pts	
Points Earned					

Activity: Receipt of FFA Empire Degree (50 points)

The Empire Degree is an FFA achievement that combines elements of many of the activities listed elsewhere in this portfolio. It is the culmination of a series of related occupational, leadership, and other activities. To complete this activity, the student will maintain all records necessary to complete all requirements for the NYS FFA Empire Degree and will complete and submit the application. The application will be evaluated by state staff members and the decision to award the degree will be taken ad prima facie evidence of successful completion of this activity. The criteria used in evaluating the application are available through the State FFA Office at 106 Kennedy Hall, Cornell University, Ithaca, NY 14953.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Receipt of Empire Degree				Completed and submitted application. Empire Degree was awarded  50 pts	

Activity: Reflective Analysis (10 points maximum)

The student will prepare a reflective analysis on what he or she learned from the activities completed for this Tab.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Reflections	Student failed to provide meaningful reflections regarding learning from these activities  0 pts	Reflections are provided but provide little insight into lessons learned  1-2 pts	Reflections are provided and provide insight into lessons learned  3 pts	Reflections provide insight into lessons learned and analyze those insights in terms of implications for the future  4 pts	
Written document	Document is poorly written, unclear, or contains numerous errors in grammar, punctuation, or syntax  0 pts	Document is adequately written and contains minimal errors  1-2 pts	Document is well written, clear, and free of errors but lacks clear organization or focus  3 pts	Document is well written, clear, well organized, and focused  4 pts	
Comprehensiveness	Reflections do not refer to all activities attempted in this tab  0 pts	Reflections at least superficially refer to all activities attempted in this tab  1 pt		Reflections meaningfully include all activities attempted in this tab  2 pts	
Points Earned					

Activity: Research paper for agriculture credit<sup>24</sup> (20 points maximum)

The student, with approval by the teacher, will select a specific agriculture-related topic interest. The student will conduct detailed research on topic, prepare and submit a written report and present an oral report in class. The research paper and oral report must be done as a part of the agriculture class and for course credit.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Appropriateness of area researched	Topic was completely unrelated to agriculture  0 pts	Topic related to agriculture but inappropriate for a research paper  1 pt	Topic was related to agriculture and appropriate but no real question or issue was involved  2 pts	Topic was related to agriculture, appropriate, and involved a real question or issue  3 pts	
Quality of research	No evidence of credible research was provided  0 pts	Footnotes and/or citations were present, but research was inadequate or based on questionable sources  1-2 pt	Footnotes and/or citations were present; sources questionable  3-4 pts	Extensive research involved appropriate and credible sources, including primary research sources; Included citations and/or footnotes; Internet resources were credible  5 pts	
Written document	Paper was missing or inadequate  0 pts	Paper was minimally acceptable; indicated poor quality research and writing  1-2 pt	Paper was well written, cleanly cited, and logically organized; few grammar, punctuation, and spelling errors were noted  3-4 pts	Met proficient level and paper was compelling and/or convincing  5-6 pts	
Points Earned					

<sup>24</sup> The student may not submit the same, or substantially the same paper for more than one activity. The topic of the research paper may be duplicated in other activities but any subsequent paper must build on the earlier paper and extend it in substantive ways. If the student elects to follow up on and extend previous papers, he/she must so inform all teachers involved and, on request provide copies of all such related paper to all teachers involved.

Activity: AgriScience Project (30 points maximum)

The student will select a specific agriculture-related research problem of interest, identify a researchable question or objective, plan, and conduct original research on the topic, prepare and submit written and visual reports, and present the research in an appropriate setting. The research may be presented in a science fair competition, an AgriScience competition, or in some other appropriate research reporting venue. If a venue other than an organized Science or AgriScience fair is used, the venue must be approved by the principal.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Research preliminaries	Needed approvals, permissions, or releases not provided 0 pts	One or more needed approvals, permissions, or releases missing 1 pt		Needed permissions, approvals, and releases signed and provided 2 pts	
Appropriateness of research	Topic unclear, unrelated to agriculture, or no clear research questions or objectives 0 pts	Topic was related to agriculture; research questions or objectives were identified 1-2 pts	Met basic level; clear problem and statement of purpose or goal provided 3-4 pts	Met proficient level and provided a clear conceptual or theoretical framework for the study 5 pts	
Literature review	No evidence of credible literature review was provided 0 pts	Marginally adequate literature review or used questionable sources 1-2 pts	Adequate literature review; most resources from credible sources 3-4 pts	Good literature review from credible sources; clear synthesis of provided 5 pts	
Research design	Research design not appropriate to answer the questions or objectives stated 0 pts	Research design was flawed to the extent that multiple alternative interpretations were clearly possible 1-2 pts	Design appropriate but lacked adequate controls or measurement. OR qualitative design lacked credibility 3-4 pts	Design clean; adequate controls and measurement OR qualitative design provided adequate credibility 5 pts	
Data collection and analysis	Data collection and/or analysis seriously flawed 0 pt	Data collection and analysis adequate; better techniques available and obvious 1 pt	Data collection and analysis were appropriate but unremarkable 2-3 pts	Data collection and analysis were indicated high level of sophistication 4 pts	
Findings, conclusions, recommendations	Findings unclear or not based on data analysis 0 pt	Findings were clear and were based on data analysis 1-2pts	Met basic level and conclusions added meaning to findings 2-3 pts	Met proficient level; recommendations based on conclusions 4 pts	
Reporting	Research report was inadequate 0 pts	Paper and/or poster minimally described the study 1-2 pts	Met basic level and paper and/or poster were of exceptional quality 3-4 pts	Met proficient level; received recognition for excellence in competition 5 pts	
Points Earned					

Activity: Research project that demonstrates competency in ELA (10 points maximum)

The student, with approval by both the agriculture and an English-Language Arts teacher, will select a specific agriculture-related project that will demonstrate competence in ELA. The student will complete the project, prepare and submit a written report, and present an oral report in class.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Appropriateness of project	Topic was unrelated to agriculture or failed to demonstrate competence in ELA  0 pts			Topic was related to agriculture and designed to demonstrate competence in ELA  1 pt	
Quality of project	Project was inadequately planned and poorly executed  0 pts	Project either inadequately planned or poorly executed  1 pt	Project adequately planned and executed  2 pts	Project was exceptionally well planned and executed  3 pts	
Reporting	Written and oral reporting were so limited as to provide little evidence of the quality of the experience or effort involved  0 pts	Student prepared a written report that adequately documented the quality and effort involved  1-2 pts	Student prepared a written report that adequately documented the quality and effort involved and made an oral report in class or to the portfolio evaluators  3-4 pts	Student's written and oral reports were of exceptional quality  5-6 pts	
Points Earned					

Activity: Research project that demonstrates competency in math (10 points maximum)  
 The student, with approval by both the agriculture and a math teacher, will select a specific agriculture-related project that will demonstrate competence in math. The student will complete the project, prepare and submit a written report, and present an oral report in class.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Appropriateness of project	Topic was unrelated to agriculture or failed to demonstrate competence in math  0 pts			Topic was related to agriculture and designed to demonstrate competence in math  1 pt	
Quality of project	Project was inadequately planned and poorly executed  0 pts	Project either inadequately planned or poorly executed  1 pt	Project adequately planned and executed  2 pts	Project was exceptionally well planned and executed  3 pts	
Reporting	Written and oral reporting were so limited as to provide little evidence of the quality of the experience or effort involved  0 pts	Student prepared a written report that adequately documented the quality and effort involved  1-2 pts	Student prepared a written report that adequately documented the quality and effort involved and made an oral report in class or to the portfolio evaluators  3-4 pts	Student's written and oral reports were of exceptional quality  5-6 pts	
Points Earned					

Activity: Research project that demonstrates competency in science (10 points maximum)  
 The student, with approval by both the agriculture and a science teacher, will select a specific agriculture-related project that will demonstrate competence in an area of science. The student will complete the project, prepare and submit a written report, and present an oral report in class.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Appropriateness of project	Topic was unrelated to agriculture or failed to demonstrate competence in science  0 pts			Topic was related to agriculture and designed to demonstrate competence in science  1 pt	
Quality of project	Project was inadequately planned and poorly executed  0 pts	Project either inadequately planned or poorly executed  1 pt	Project adequately planned and executed  2 pts	Project was exceptionally well planned and executed  3 pts	
Reporting	Written and oral reporting were so limited as to provide little evidence of the quality of the experience or effort involved  0 pts	Student prepared a written report that adequately documented the quality and effort involved  1-2 pts	Student prepared a written report that adequately documented the quality and effort involved and made an oral report in class or to the portfolio evaluators  3-4 pts	Student's written and oral reports were of exceptional quality  5-6 pts	
Points Earned					

Activity: Research project that demonstrates competency in social studies (10 points maximum)  
 The student, with approval by both the agriculture and a social studies teacher, will select a specific agriculture-related project that will demonstrate competence in an area of social studies. The student will complete the project, prepare and submit a written report, and present an oral report in class.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Appropriateness of project	Topic was unrelated to agriculture or failed to demonstrate competence in social studies  0 pts			Topic was related to agriculture and designed to demonstrate competence in social studies  1 pt	
Quality of project	Project was inadequately planned and poorly executed  0 pts	Project either inadequately planned or poorly executed  1 pt	Project adequately planned and executed  2 pts	Project was exceptionally well planned and executed  3 pts	
Reporting	Written and oral reporting were so limited as to provide little evidence of the quality of the experience or effort involved  0 pts	Student prepared a written report that adequately documented the quality and effort involved  1-2 pts	Student prepared a written report that adequately documented the quality and effort involved and made an oral report in class or to the portfolio evaluators  3-4 pts	Student's written and oral reports were of exceptional quality  5-6 pts	
Points Earned					

Activity: Reflective Analysis (10 points maximum)

The student will prepare a reflective analysis on what he or she learned from the activities completed for this Tab.

Criterion	Unsatisfactory	Basic	Proficient	Exemplary	Pts
Reflections	Student failed to provide meaningful reflections regarding learning from these activities  0 pts	Reflections are provided but provide little insight into lessons learned  1-2 pts	Reflections are provided and provide insight into lessons learned  3 pts	Reflections provide insight into lessons learned and analyze those insights in terms of implications for the future  4 pts	
Written document	Document is poorly written, unclear, or contains numerous errors in grammar, punctuation, or syntax  0 pts	Document is adequately written and contains minimal errors  1-2 pts	Document is well written, clear, and free of errors but lacks clear organization or focus  3 pts	Document is well written, clear, well organized, and focused  4 pts	
Comprehensiveness	Reflections do not refer to all activities attempted in this tab  0 pts	Reflections at least superficially refer to all activities attempted in this tab  1 pt		Reflections meaningfully include all activities attempted in this tab  2 pts	
Points Earned					

## Appendix C

### Sample Score Sheet for General Performance Skills Portfolio

### **Student Demonstration of General Performance Skills Portfolio**

Student: Jane Dunn  
 Grade: 12  
 Career Pathway: Agribusiness Systems

Approvals: Student: Jane Dunn Teacher: B. Foote Date: 3/6/09

Tab Activity	Activity	Tab Pts Sub-Totals	Activity Pts Allowed	Pts Earned
<b>A</b>	<b>Employability (125 points)</b>	<b>130</b>		
A-1	Personal skill inventory checklist self-analysis		20	17
A-2	Career plan and goals		10	5
A-3	Cover letter		10	8
A-4	Resume		30	24
A-5	Completed job application		10	9
A-6	Job Interview		30	27
A-7	Follow up letter		10	8
A-8	Reflective analysis		10	8
<b>B</b>	<b>Personal Development<sup>25</sup> (80 point maximum)</b>	<b>75</b>		
B-1	Serve as a Program of Work FFA committee chair <sup>26</sup>		15	15
B-2	Participate on Chapter Parli Pro CDE team in State competition		20	20
B-3	Prepare and deliver PR speech to local Rotary Club		10	9
B-4	Organize and supervise a monthly "Adopt a Park" clean up activity for Stewart Park for April 1 through October 31, 2008		20	20
B-5	Reflective Analysis		10	8
<b>C</b>	<b>Work Experience (80 point maximum)</b>	<b>40</b>		
C-1	Research and write career research paper on 10 different careers in agribusiness sector. Present report in class.		10	8
C-3	Unpaid internship in advertising and sales at Tractor Supply Company, 40 hours total. Prepare written report and present in class.		20	20
C-5	Reflective Analysis		10	8
<b>D</b>	<b>Academic Integration (80 point maximum)</b>	<b>55</b>		
D-1	Research paper on pesticide properties and IPM for biology class project		15	12
D-4	Plan and complete an experimental study on the effect of shelf placement on sales of a product at local AgWay. Prepare and present as AgriScience Project.		30	25
D-7	Reflective Analysis		10	9
<b>Total</b>		<b>300</b>		<b>260</b>

<sup>25</sup> Note that the worksheet specifies actual experiences rather than generic activity titles; e.g. "Serve as a Program of Work FFA committee chair" is shown here rather than the generic "Organizational leadership." This allows the teacher and student to use the worksheet essentially as a "contract" as well as an assessment summary.

<sup>26</sup> Note: Student and teacher agreed on 15 points for serving as committee chair rather than 20 for being an officer.

**Appendix D**  
**Sample Technical Competency Checklist**

Student: Jane Dunn  
 Grade: 12  
 Career Pathway: Animal Systems  
 Specialty: Small Animal Care  
 Approvals:

Student: *Jane Dunn*  
 Teacher: *B. Foote*  
 Principal: *P. Dewey*

Skills Requirements for Small Animal Care	Pts Allowed		Pts Earned
<b>Participating in the Student Organization</b>	16		
• Identify the purposes and goals of the student organization.		3	
• Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.		3	
• Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.		10	
<b>Practicing Leadership Skills</b>	73		
• Explain classroom expectations.		3	
• Identify essential traits of leadership.		3	
• Explain leadership principles.		3	
• Explore opportunities for leadership.		3	
• Identify benefits and responsibilities of FFA membership.		3	
• Identify duties of all officers in the FFA.		3	
• Participate in a committee meeting.		6	
• Prepare and deliver an oral presentation or speech.		10	
• Participate in a panel discussion.		6	
• Write a news release.		10	
• Use parliamentary procedure.		10	
• Complete an FFA award and/or officer application.		10	
• List the purposes of the New York State FFA Foundation.		3	
<b>Exploring Supervised Agricultural Experience</b>	43		
• Explore the different types of Supervised Agricultural Experience (SAE) programs.		3	
• Develop a budget for SAE.		5	
• Develop an annual plan for SAE based on personal goals.		5	

• Develop record-keeping skills using SAE record book.		10	
• Conduct an agricultural research SAE project.		20	
<b>Exploring the Pet Care Industry</b>	16		
• Describe opportunities in the pet care industry.		4	
• Describe the nature of the work and the salaries in small animal care.		4	
• Examine the role of pets with humans from a historical perspective.		4	
• Identify safety issues related to pet ownership.		4	
<b>Caring for and Managing Cats</b>	40		
• Describe the specific physical characteristics of cats.		4	
• Describe common breeds of cats.		4	
• Select a cat.		4	
• Describe the nutritional requirements of cats.		4	
• Describe the housing requirements of cats.		4	
• Care for a cat.		4	
• Describe how cats reproduce.		4	
• Describe the growth stages of a cat.		4	
• Describe the care of a litter.		4	
• Maintain the health of cats.		4	
<b>Caring for and Managing Dogs</b>	40		
• Describe the specific characteristics of dogs.		4	
• Describe common breeds of dogs and issues related to breeding.		4	
• Select a dog.		4	
• Describe the nutritional requirements of dogs.		4	
• Describe the physical equipment needed to keep a dog.		4	
• Care for a dog.		4	
• Describe how dogs reproduce.		4	
• Describe the growth stages of a dog.		4	
• Describe the care of a litter.		4	
• Maintain the health of dogs.		4	
<b>Caring for and Managing Rabbits</b>	40		
• Describe the specific physical characteristics of rabbits.		4	
• Describe common breeds of rabbits.		4	
• Select a rabbit.		4	
• Describe the nutritional requirements of rabbits.		4	
• Describe the equipment and supplies needed in the care and management of a rabbit.		4	
• Care for a rabbit.		4	
• Describe how rabbits reproduce.		4	
• Describe the growth stages of a rabbit.		4	

• Describe the care of a litter.		4	
• Maintain the health of rabbits.		4	
<b>Caring for and Managing Rodents</b>	8		
• Describe the specific physical characteristics and behavior of common pet rodents: mice, rats, gerbils, guinea pigs, and hamsters.		4	
• Describe general care, nutrition, housing, equipment, health, and breeding associated with common pet rodents.		4	
<b>Caring for and Managing Birds</b>	8		
• Identify common species of pet birds and their characteristics.		4	
• Describe general care, nutrition, health, housing, equipment, sexing, and breeding of common pet		4	
<b>Caring for and Managing Fish</b>	8		
• Describe the three categories of fish suitable for home aquariums.		4	
• Care for fish and aquariums.		4	
<b>Caring for and Managing Reptiles, Amphibians, and Specialized Animals</b>	8		
• Identify the general characteristics of common species of reptiles, amphibians, and other specialized animals of general interest.		4	
• Select and care for reptiles, amphibians, and other pets not previously studied.		4	
<b>TOTAL POINTS</b>	<b>300</b>	<b>300</b>	<b>0</b>