

Appendix A: AFNR Career Cluster Content Standards-**Small Animal Care**

	Performance Measurement Levels	Event Activities Addressing Measurements	Related Academic Standards
CS.02.03. Performance Indicator: Professional Growth: Develop awareness and apply skills necessary for achieving career success.			Language Arts: 12 Social Studies: 4a
	CS.02.03.01.a. Explore various career interests/options.	Scenario Questions; Team Activity	
	CS.02.03.03.a. Identify the skills required for various careers.	Scenario Questions; Team Activity	
CS.02.04. Performance Indicator: Mental Growth: Demonstrate the effective application of reasoning, thinking and coping skills.			Math: 6C Science: A4 Language Arts: 4 and 8
	CS.02.04.01.c. Demonstrate critical and creative thinking skills while completing a task.	Team Activity	
CS.03.01. Performance Indicator: Communication: Demonstrate oral, written and verbal skills.			Language Arts: 4, 5 and 12
	CS.03.01.03.c. Make effective business presentations.	Team Activity	
CS.06.02. Performance Indicator: Develop a plan to maintain and improve health, safety and environmental compliance and performance.			Science: F1, F4 and F5 Social Studies: 9d
	CS.06.02.01.a. Use proper safety practices/personal protective equipment.	Handling and Restraining Practicum; Clinical Procedure Practicum	
CS.07.01. Performance Indicator: Apply safety/health practices to AFNR worksites.			Science: F1 and F5
	CS.07.01.01.b. Use appropriate personal protective equipment for a given task.	Handling and Restraining Practicum; Clinical Procedure Practicum	
CS.07.04. Performance Indicator: Assess workplace safety.			Science: F5
	CS.07.04.01.a. Research applicable regulatory and safety standards (e.g., MSDS, bioterrorism).	Written Exam	
	CS.07.04.02.a. Handle chemicals and equipment in a safe and appropriate manner.	Clinical Procedure Practicum	

CS.08.01. Performance Indicator: Evaluate and select the appropriate tool to perform a given task.		
CS.08.01.01.c. Use tools and equipment appropriately to complete a specific task.	Identification; Handling and Re- straining Practicum; Clinical Procedures Practicum	
ABS.02.03. Performance Indicator: Apply appropriate management skills to organize a business.		Language Arts: 12 Social Studies: 7f
ABS.02.03.02.a. Identify appropriate local, state, federal, international and industry regulations for AFNR businesses.	Written Exam; Scenario Questions	
ABS.02.04.03.a. Explain the meaning and importance of employee relations, including communication.	Scenario Questions; Team Activity	
AS.02.01. Performance Indicator: Classify animals according to hierarchical taxonomy and agricultural use.		Science: C3
AS.02.01.02.a. Identify major animal species by common and scientific names.	Identification	
AS.02.02.06.c. Explain the impact of animal body systems on performance, health, growth and reproduction.	Written Exam; Scenario Questions	
AS.02.03. Performance Indicator: Select animals for specific purposes and maximum performance based on anatomy and physiology.		Science: C5
AS.02.03.01.a. Identify ways an animal's health can be affected by anatomical and physiological disorders.	Written Exam; Scenario Questions	
AS.03.01. Performance Indicator: Prescribe and implement a prevention and treatment program for animal diseases, parasites and other disorders.		Science: C4, F1 and F5
AS.03.01.01.b. Perform simple health-check evaluations on animals.	Clinical Procedures Practicum; Team Activity	
AS.03.01.02.a. Identify common diseases, parasites and physiological disorders that affect animals.	Identification	
AS.03.01.03.a. Explain characteristics of causative agents and vectors of diseases and disorders in animals.	Written Exam; Scenario Questions	
AS.03.01.04.b. Prepare animals, facilities and equipment for surgical and nonsurgical veterinary treatments and procedures.	Clinical Procedures Practicum	

AS.05.01. Performance Indicator: Evaluate the male and female reproductive systems in selecting animals.			Science: C1 and C3
	AS.05.01.01.a. Explain the male and female reproductive organs of the major animal species.	Written Exam; Scenario Questions	
AS.05.03. Performance Indicator: Apply scientific principles in the selection and breeding of animals.			Math: 6C Science: A4, C2 and E2
	AS.05.03.01.a. Explain genetic inheritance in agricultural animals.	Written Exam; Scenario Questions	
	AS.05.03.02.a. Define natural and artificial breeding methods.	Written Exam; Scenario Questions	
AS.06.01. Performance Indicator: Demonstrate safe animal handling and management techniques.			Science: C6
	AS.06.01.01.c. Interpret animal behaviors and execute protocols for safe handling of animals.	Handling and Re- straining Practicum	
	AS.06.01.02.a. Explain the implications of animal welfare and animal rights for animal agriculture.	Scenario Questions	
AS.06.02. Performance Indicator: Implement procedures to ensure that animal products are safe.			Science: F1 and F5
	AS.06.02.01.a. Identify animal production practices that could pose health risks or are considered to pose risks by some.	Scenario Questions	
AS.07.01. Performance Indicator: Design animal housing, equipment and handling facilities for the major systems of animal production.			Science: C6 and F6
	AS.07.01.02.a. Identify equipment and handling facilities used in modern animal production.	Identification	
AS.07.02. Performance Indicator: Comply with government regulations and safety standards for facilities used in animal production.			Science: F5
	AS.07.02.01.a. List the general standards (e.g., environmental, zoning, construction) that must be met in facilities for animal production.	Written Exam; Scenario Questions	
AS.08.02. Performance Indicator: Evaluate the effects of environmental conditions on animals.			Science: C6 and F4
	AS.08.02.01.b. Describe the effects of environmental conditions on animal populations and performance.	Written Exam; Scenario Questions	

## Appendix B: Related Academic Standards-**Small Animal Care**

National academic standards for mathematics, science, English language arts and social studies related to this event are reported below. The statements are based on information in reports of the respective associations/organizations in the academic areas. Some adjustment of numbering was done to facilitate the process of alignment with the standards that have been developed in the pathways of the Agriculture, Food and Natural Resources (AFNR) Career Cluster.

The approach was to determine the presence of alignment between the content standards, expectations or thematic strands of the four academic areas and the performance indicators of the AFNR Standards. Supporting statements have been included to clarify content of the respective content standards, expectations or thematic strands. The statements were initially developed independently by the respective organizations and, therefore,

are not parallel in wording and presentation. Occasionally minor editing was done to adjust the background or stem of a statement but not the statement itself.

### **Mathematics**

#### 6. Standard and Expectations: Problem Solving

6C. Apply and adapt a variety of appropriate strategies to solve problems.

### **Science**

#### A. Content Standard: Science as an Inquiry

A4. Formulate and revise scientific explanations and models using logic and evidence.

#### C. Content Standard: Life Science

C1. The cell

C2. Molecular basis of heredity

C3. Biological evolution

C4. Interdependence of organisms

C5. Matter, energy and organization in living systems

C6. Behavior of organisms

E. Content Standard: Science and Technology

E2. Understanding about science and technology

F. Content Standard: Science in Personal and Social Perspectives

F1. Personal and community health

F4. Environmental quality

F5. Natural and human-induced hazards

F6. Science and technology in local, national and global challenges

### **English Language Arts**

4. Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.

5. Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

8. Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

12. Students use spoken, written and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion and the exchange of information).

### **Social Studies**

#### 4. Thematic Strand: Individual Development and Identity

4a. articulate personal connections to time, place and social/cultural systems;

#### 7. Thematic Strand: Production, Distribution and Consumption

7f. compare how values and beliefs influence economic decisions in different societies;

#### 9. Thematic Strand: Global Connections

9d. analyze the causes, consequences and possible solutions to persistent, contemporary and emerging global issues, such as health, security, resource allocation, economic development and environmental quality;