Small Animal Care

CDE Handbook

SMALL ANIMAL CARE

1. Purpose

This career development event is designed to assess student knowledge, application, analytical, and evaluation abilities in the area of small animal care, veterinary skills, and pet store management.

2. Objectives

3. Rules

a. Each team may be comprised of three to five members.
b. Each team member will take part in the first three portions of the event individually.
c. The top three scores among the team members will constitute the team score.
d. Team members will work together for the team problem-solving portion of the event and submit one copy of their answer sheet. This score will be added to the team score to determine team rankings.
e. The following timelines will be enforced:

1. Written Test	40 minutes
2. Math Practicum	20 minutes
3. Breed Identification	50 minutes
4. Anatomy Practicum	20 minutes
5. Team Activity	20 minutes

f. Members are to wear Official FFA Dress for this event.

4. Format

a. Written Test

1. The written test will be comprised of 50 multiple-choice questions. Each question will be worth four points.
2. Universal C Scantron will be used.
3. Below are six topic areas that will be covered on the written test:

- Anatomy and Physiology 20%
- Nutrition 20%
- Diseases and Parasites 20%
- Breeding and Genetics 10%
- Breeds and Grooming 10%
- Housing and Management 10%
- Veterinary Terminology 10%

b. Math Practicum

1. There will be 5 math-based questions worth 10 points each.
2. Participants will have 20 minutes to complete the entire math application practicum.
3. Questions may include conversions, dose calculations, dilutions, cost calculations and invoices.

4. Examples of these questions can be found in the National FFA Veterinary Science Math Practicums which can be accessed on FFA.org.

c. Breed Identification

1. The breed identification portion of this event will be comprised of 50 questions.
2. Each question will be worth four points.
3. Power point slides will be utilized for this portion of the contest, in the interest of saving labor and materials in its preparation, and in contributing to smooth operation of the event.
4. There will be six different species of animals and parasites that contestants will need to identify. They will be broken down with the following numbers per area:

   Dogs—15, Cats—10, Birds—5, Fish—10, Parasites—5, Rabbits—5

d. Anatomy Practicums

1. This portion of the contest will follow a theme, which will rotate from year to year.

Rotation	**Year**	**Anatomical Diagram**
1	2020	Reproductive Systems Diagrams
		Respiration and Vascular Systems Diagram
		**All on Mammals Only
2	2021	Skeletal Diagrams
		Digestive/Excretory System Diagrams
		Reproductive Systems Diagrams
		**On Avian and Reptile animals only
3.	2022	Skeletal Diagrams
		Digestive/Excretory Systems Diagrams
		Nervous System Diagrams
		**All on Mammals Only

e. Team Problem

1. This portion of the event will consist of mathematical problems that will help build contestant awareness of pet related products.
2. Problems may also deal with management, pet nutrition, and health issues.
3. The following is the rotation for team problems:

Rotation	Year	Topics
1	2020	Sales Problems
		Kennel Management Problems
2	2021	Nutritional Problems
		Health Issues
3	2022	Pet Food Problems
		Fish Aquarium Related Problems

5. Resources

The following is a list of possible resources that will assist you in finding information that pertains to the Small Animal Care Career Development Event:

a. Comprehensive Health Care for Dogs, by James E. McKay
b. Small Animal Care and Management-A Delmar Text, by Dean M. Warren
c. Dog Fancy Magazine
d. Cat Fancy Magazine
e. The Aquarium Fish Handbook, by Mary Bailey and Nick Dakin
f. Love of Dogs, by Todd Berger
g. National FFA Veterinary Science CDE Written Exams and Math Practicum Exams.

6. Scoring

Practicum	**Individual Points**	**Team Points**
Written Test	200	600
Math Practicum	50	150
Breed ID	200	600
Anatomy	50	150
Team Problem		50
Maximum Points	500	1550

7. Awards

a. Individual

1. Individual scores will be tabulated and broken into gold, silver, and bronze award areas.
2. Individual ties will not be broken
3. The high individual receives the “baby bison” trophy and a $100 stipend.

b. Team

1. Team scores will be the sums of the scores of the top three (3) team members. They will be broken into gold, silver, and bronze.
2. The high team will receive the traveling trophy, travel stipends from ND FFA Foundation and be eligible to represent North Dakota in the National Career Development Event.
3. Team Tie Breakers: 1st - Breed ID, 2nd – Written Test.

ND FFA SMALL ANIMAL CARE CDE

Breed Identification Scantron Sheet Codes

INSTRUCTIONS: Use the following codes listed in the table below to indicate your choice of the breed shown in the Power Point presentation. Be certain to darken the circles completely. If you need to change your answer, also make sure that you ERASE the darkened circles thoroughly, so the machine will read your new answer correctly. Each correctly identified breed is worth four points.

ID Code	Dog Breeds	ID Code	Dog Breeds, Continued	ID Code	Cat Breeds	ID Code	Bird Breeds
101	Australian Shepherd	121	Labrador Retriever	140	Abyssianian	167	African Gray Parrot
102	Basset Hound	122	Lhasa Apso	141	American Shorthair	168	Amazon Parrot
103	Beagle	123	Maltese	142	American Wirehair	169	Blue & Gold Macaw
104	Bichons Frises	124	Mastiff	143	Balinese	170	Budgerigar
105	Boston Terrier	125	Papillon	144	Birman	171	Canary
106	Boxer	126	Pekingese	145	Bombay	172	Cockatiel
107	Brittany Spaniel	127	Pomeranian	146	British Shorthair	173	Greater Sulfur Cockatoo
108	Bulldog	128	Poodle	147	Burmese	174	Peach Faced Lovebird
109	Cavalier King Charles Spaniel	129	Pug	148	Chartreux	175	Scarlet Macaw
110	Chihuahua	130	Rottweiler	149	Colorpoint Shorthair	176	Sun Conure
111	Chinese Shar-Pei	131	St. Bernard	150	Havana Brown	177	Umbrella Cockatoo
112	Cocker Spaniel	132	Schnauzer (& Miniature)	151	Maine Coon	178	Zebra Finch
113	Collie	133	Shetland Sheepdog	152	Manx		
114	Dauchshund	134	Shih Tzu	153	Norwegian Forest Cat	**ID Code**	**Parasites**
115	Doberman Pincher & Miniature	135	Siberian Husky	154	Oriental Shorthair	179	Anchorworm
116	English Springer Spaniel	136	Weimaraner	155	Persian	180	Fleas
117	German Shepherd	137	Welsh Corgis (Pembroke)	156	Rex (Cornish & Devon)	181	Flukes
118	German Shorthaired Pointer	138	West Highland White Terrier	157	Russian Blue	182	Heartworm
119	Golden Retriever	139	Yorkshire Terrier	158	Scottish Fold	183	Hookworm
120	Great Dane			159	Siamese	184	Hydatid
				160	Somali	185	Lice
ID Code	**Fish Breeds**	**ID Code**	**Fish Breeds, Continued**	161	Sphynx	186	Lungworm
216	Angelfish	204	Harlequin Rasbora	162	Tonkinese	187	Mites
217	Bala Shark	205	Jack Dempsey	163	Turkish Angora	188	Ringworm
218	Betta	206	Molly			189	Roundworm
219	Black Moor Goldfish	207	Neon Tetra	**ID Code**	**Rabbit Breeds**	190	Tapeworm
220	Black Skirt Tetra	208	Oscar	194	Angora (English or French)	191	Threadworm
221	Blue Gourami	209	Platy	195	Californian	192	Tick
222	Cardinal Tetra	210	Plecostomous	196	Dutch	193	Whipworm
223	Chinese Algae Eater	211	Redtail Shark	197	English Lop		
224	Comet Goldfish	212	Swordtail	198	Jersey Wooly		
225	Dwarf Gourami	213	Tiger Barb	199	Mini Lop		
226	Fantail Goldfish	214	Zebra Cichlid	200	Netherland Dwarf		
227	Guppy	215	Zebra Danio	201	New Zealand		
				202	Polish		
				203	Rex (Mini or Standard)		

NORTH DAKOTA

Small Animal Care
Units of Measurements

Units of Mass

1 kilogram (kg) = 2.2 pounds
1 pound = 0.45 kg
1 gram (g) = 1000 milligrams (mg)
1 pound = 453.59 g
60 grains (gr) = 1 dram (dr)
3 teaspoons (tsp) = 1 tablespoon (tbsp) = 1/2 oz = 14.3 g
2 tbsp = 1/8 cup = 1 oz = 28.3 g
4 tbsp = 1/4 cup = 2 oz = 56.7 g
5 1/3 tbsp = 1/3 cup = 2.6 oz = 75.6 g
8 tbsp = 1/2 cup = 4 oz = 113.4 g
12 tbsp = 3/4 cup = 6 oz = 0.375 pound
32 tbsp = 2 cups = 16 oz = 1 pound

Units of Volume

1 tsp = 5 milliliters (ml)
2 tbsp = 1 fluid ounce (fl oz) = 30 ml
1/4 cup = 2 fl oz = 60 ml
1/2 cup = 4 fl oz = 125 ml
1 cup = 8 fl oz = 250 ml
1 1/2 cups = 12 fl oz = 375 ml
2 cups or 1 pint = 16 fl oz = 500 ml
4 cups or 1 quart = 32 fl oz = 1000 ml = 1 liter (L)
1 gallon = 128 fl oz = 4 L
2 pints = 1 quart
4 quarts = 1 gallon

Units of Length

1 millimeter (mm) = 0.001 of a meter (m)
25 mm = 1 inch

Units of Temperature

Celcius (°C) and Fahrenheit (°F)
°C = 5/9 (°F-32) or (°F-32) x 5/9
°F = 9/5 (°C) + 32 or °C x 9/5 + 32

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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;