



WASHINGTON STATE **VETERINARY SCIENCE**

CAREER DEVELOPMENT EVENT

A Special Project for the Washington FFA Foundation

IMPORTANT NOTE

Please thoroughly read the Introduction Section at the beginning of this handbook for complete rules and procedures that are relevant to all Washington FFA Career Development Events.

I. Purpose

The purpose of the veterinary science career development event is to promote college and career readiness by providing opportunities to develop technical knowledge and demonstrate practical skills in the field of veterinary science.

II. Objectives

- A. Participants will demonstrate professional ethics, decision-making, communication and problem-solving skills.

- B. Participants will demonstrate technical competency with small and large animals in the areas of:
 - 1. Anatomy and physiology
 - 2. Clinical procedures
 - 3. Identification
 - 4. Health and safety
 - 5. Medical terminology

III. Agriculture, Food and Natural Resources (AFNR) Career Cluster Content Standards

With the recommendation of the National FFA Board of Directors, all national FFA programs have incorporated these standards to guide the direction and content of program materials and activities. Refer to Appendix A in this chapter of the handbook for a complete list of the measurable activities that participants will carry out in this event. For details about the incorporation of AFNR standards, refer to the Introduction chapter of the CDE handbook.

IV. Event Rules

The Washington State Veterinary Science Career Development Event follows the National FFA CDE Rules.

Please refer to the National FFA CDE Handbook for complete information regarding this CDE.

A. Teams will consist of four members with all four members' scores counting toward total team score.

B. Dress code:

1. Day 1: It is highly recommended that participants wear FFA Official Dress for the written portion of the event.

3. Tools and Equipment:

- a. Equipment provided: pencils, calculators, clipboards and paper.
- b. National FFA will provide the specific tools and equipment needed to complete practicums.
- c. Due to sanitation reasons, some items that may be needed in the event (such as stethoscopes) will need to be provided by the participant or their chapter. Teams will be provided a list of specific items needed for a specific year based on the event activities.

4. Any participant in possession of an electronic device in the event area is subject to disqualification.

V. Event Format

A. Individual Activities

1. Written Exam - 100 points

The objective, multiple-choice exam is designed to determine team members' broad understanding of the veterinary science field. The written exam will consist of 50 multiple-choice questions. See sample questions below. Sixty minutes will be given for the exam. Topics for the exam may include:

- Behavior
- Disease (causes and sources, signs and symptoms)
- Medical terminology
- Medical records
- Anatomy/physiology
- Regulations (federal OSHA, MSDS)
- Patient management
- Facility management

- Genetics

Sample Written Exam Questions

Which of the following is the intermediate host for the dog tapeworm?

- A. Mosquito
- B. Rodent
- C. Flea
- D. Tick

What is the primary body defense against bacteria that may cause disease?

- A. Skin
- B. Antibiotics
- C. Antigens
- D. Lymph nodes

What route of administration deposits a drug into the blood vessel?

- A. Intravenous
- B. Intracardiac
- C. Intraperitoneal
- D. Intradermal

2. Identification - 100 points total

Participants will identify equipment, parasites and breeds/species for a total of 100 points. Thirty minutes will be given for this activity. Identification lists are located at the end of this handbook.

- a. Equipment – 50 points
Participants will identify pieces of equipment (actual equipment and photos). They will also need to have general knowledge about the use for each item.
- b. Parasites – 30 points
Participants will identify parasites (photos) and explain the life cycles of selected parasites.
- c. Breeds – 20 points
Participants will identify breeds of small and large animals (photos).

VI. Event Scoring

Day 1 Events:	Individual Points	Team Points
Written Exam	100 (2 pts/question).....	400
Identification	100	400
Maximum		
Total Points.....	200	800

VII. Tiebreakers

- A. Team tiebreakers will be settled in the following order:
1. Combined individual written exam total score
- B. Individuals tiebreakers will be settled in the following order:
1. Written exam score

VIII. Awards

Awards will be presented to individuals and teams based upon their rankings at the awards ceremony.

Awards are sponsored by a cooperating industry sponsor(s) as a special project, and/or by the general fund of the Washington State FFA Foundation.

IX. Resources

This list of references is not intended to be all inclusive. Other sources may be utilized, and teachers are encouraged to make use of the very best instructional materials available. The following list contains references that may prove helpful during event preparation.

Books

Veterinary Assisting: Fundamentals and Applications. Vanhorn, Clark. ISBN: 978-1-4354-5387-6

McCurnin's Clinical Textbook for Veterinary Technicians. McCurnin, Bassert. ISBN: 978-1416057000

Small Animal Surgical Nursing: Skills and Concepts. Busch. ISBN: 978-0323030632

Large Animal Clinical Procedures for Veterinary Technicians. Holtgrew-Bohling. ISBN: 978-0-323-07732-3

Manual of Clinical Procedures in Dogs, Cats, Rabbits & Rodents. Crow, Walshaw, Boyle. ISBN: 978-0813813042

Restraint and Handling for Veterinary Technicians and Assistants. Ballard, Rockett. ISBN: 978-1-4354-5358-6

Small Animal Care and Management. Warren. ISBN: 978-1-4180-4105-2

Exotic Animal Care and Management. Judah, Nuttall. ISBN: 978-1-4180-4198-4

An Illustrated Guide to Veterinary Medical Terminology. Romich. ISBN: 978-1-4354-2012-0

Veterinary Instruments and Equipment: A Pocket Guide. Sonsthagen. ISBN: 978-0323032032

Official Guide: Maintaining and Cleaning Surgical Instruments. Stow.

- Provided free of charge by the program or available on-line at:
<http://www.spectrumsurgical.com>

Veterinary Science: Preparatory Training for the Veterinary Assistant. Faries. ISBN: 978-0-9849115-0-9.

- Order online:
https://agriflifebookstore.org/publications_browse2.cfm?keywordid=4

Websites

American Kennel Club –
<http://www.akc.org/index.cfm>

Cat Fanciers' Association –
<http://www.cfa.org/client/breeds.aspx>

American Rabbit Breeders Association –
<http://www.arba.net/>

OSHA –
<http://www.safetyvet.com/osha/oshamain.htm>

Equipment and Materials Identification List - Page 1

Ambubag	Disposable hypodermic needles
Anesthetic machines	Drench gun
Animal clippers	Ear notcher
Autoclave	Ear tags
Autoclave tape indicator	Ear tag pliers
Backhaus towel clamps	Elastrator
Balling gun	Elizabethian collar
Bands (castration or docking)	Emasculators
Bandaging material- Elasticon	Endotracheal tubes
Bandaging material– roll gauze	Fecal loop
Bandaging material– vet wrap	Fecalyzers
Basket muzzle	Feeding tube for small animals
Betadine	Fetal extractor
Brush - Body (soft bristle)	Fingertip toothbrush
Brush - Dandy (stiff bristle)	Forceps- Adson tissue
Brush - Slicker	Forceps - Alligator
Brush - Pin	Forceps- Allis tissue
Bulb syringe	Forceps- Babcock tissue
Cat bag	Forceps- Brown-Adson thumb
Carmalt	Forceps- Crile
Catch pole (dog snare)	Forceps- Halstead mosquito hemostatic
Catheter - IV	Forceps- Kelly
Catheter - butterfly	Forceps - Rat tooth thumb
Catheter - urine	Gag mouth speculum (small)
Centrifuge	Gag mouth speculum (large)
Chain twitch	Gavage needle
Chemical indicator strips	Gravity feeder / J tube
Clipper blades	Halter
Clipper comb	Head chute
Surgical drapes	Hog snare
Cold sterile tray	Hoof knife
Comb - Curry	Hoof nippers
Comb - Flea	Hoof pick
Comb - Scotch	Hoof rasp
Cover slips	Hoof trimmers
Dehorner - Barnes	Humane twitch
Dehorner - electric	Hydraulic chute
Dehorner - scoop or tube	Identification tag applicator
Dental floats	IV fluids
Dental retractor	IV administration
Dental scaler	Laryngoscopes

Equipment and Materials Identification List - Page 2

Lead rope	Shedding blade
Lead shank	Silver nitrate sticks
Lead gloves	Small animal oxygen cage
Needle holder - Mayo-Hegar	Snook ovariohysterectomy hook
Needle holder - Olsen-Hegar	Squeeze chute
Microscope slides	Staple remover
Muzzle- commercial	Steel lift table
Nail clippers - guillotine	Stethoscope
Nail clippers - plier	Surgical cap
Obstetrical chain and handle	Surgical gloves
Ophthalmoscope	Surgical gown
Otoscope	Surgical masks
Paste gun	Surgical tray
Pig tooth nippers	Suture materials
Pill counting tray	Suture needle
Radiology personal protective equipment	Suture wire cutting scissors
Rumen magnet	Syringe - leur lock
Scalpel blade	Syringe - slip tip
Scalpel handle	Syringe - automatic, multi-dose
Scissors- Bandage	Tattooing instruments - small & large
Scissors- Lister bandage	Tourniquet
Scissors- Littauer suture removal	Trocar & cannula
Scissors- Mayo dissecting	Weight tape
Scissors- Metzenbaum dissecting	

Parasite Identification List

Blowfly (Family Calliphoridae)	Liver Fluke (Class Trematoda; Genus Fasciola, Fascioloides or Dicrocoelium)
Blowfly Maggot (Family Calliphoridae)	Lungworm (Family Metastrongylidae; Genus Metastrongylus, Dictyocaulus or Aelurostrongylus)
Cat Warble (Genus Cuterebra)	Mosquito Adult (Family Culicidae; Genus Anopheles, Culex or Aedes)
Cattle Grub (Genus Hypoderma)	Mosquito Larva (Family Culicidae; Genus Anopheles, Culex or Aedes)
Coccidia (Genus Isospora or Eimeria)	Pinworm (Genus Oxyuris)
Demodectic Mite (Genus Demodex)	Roundworm Adult* (Family Ascarididae or Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)
Ear Mite (Family Ascaridae; Genus Otodectes)	Roundworm Egg* (Family Ascarididae or Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)
Fleas* (Genus Ctenocephalides)	Sarcoptic Mite (Family Ascaridae; Genus Sarcoptes or Notoedres)
Flea Larva (Genus Ctenocephalides)	Taenia Tapeworm* (Family Taeniidae; Genus Taenia)
Flea Tapeworm (Genus Dipylidium)	Taenia Tapeworm Egg* (Family Taeniidae; Genus Taenia)
Flea Tapeworm Egg (Genus Dipylidium)	Taenia Tapeworm Segment* (Family Taeniidae; Genus Taenia)
Flea Tapeworm Segment (Genus Dipylidium)	Soft Tick (Family Argasidae; Genus Otobius or Argas)
Giardia (Genus Giardia)	Whipworm* (Genus Trichuris)
Hard Tick (Family Ixodidae; Genus Amblyomma or Dermacentor)	Whipworm Egg* (Genus Trichuris)
Heartworm* (Genus Dirofilaria)	
Heartworm Adult* (Genus Dirofilaria)	
Heartworm Microfilaria* (Genus Dirofilaria)	
Hookworm Adult* (Family Ancylostomatidae; Genus Ancylostoma, Uncinaria, Bunostomum or Globocephalus)	
Hookworm Egg* (Family Ancylostomatidae; Genus Ancylostoma, Uncinaria, Bunostomum or Globocephalus)	
Horse Bots* (Genus Gasterophilus)	
Horse Strongyles* (Family Strongylidae; Genus Strongylus)	
Lice - Biting (Order Mallophaga; Genus Bovicola or Trichodectes)	
Lice - Sucking (Order Anoplura; Genus Linognathus or Hematopinus)	

*Asterisk indicates which parasite life cycles could have questions.

SPORTING GROUP

Brittany
 Cocker Spaniel
 English Setter
 English Springer Spaniel
 German Shorthaired Pointer
 Golden Retriever
 Irish Setter
 Labrador Retriever
 Weimaraner

NON-SPORTING GROUP

Bichon Frise
 Boston Terrier
 Bulldog
 Chinese Shar-Pei
 Chow Chow
 Dalmatian
 Lhasa Apso
 Poodle

TERRIER GROUP

Bull Terrier
 Cairn Terrier
 Miniature Schnauzer
 Parson Russell Terrier
 Scottish Terrier
 Smooth Fox Terrier
 West Highland White Terrier
 Wire Fox Terrier

WORKING GROUP

Akita
 Alaskan Malamute
 Bernese Mountain Dog
 Boxer
 Bullmastiff
 Doberman Pinscher
 Giant Schnauzer
 Great Dane
 Great Pyrenees
 Mastiff
 Newfoundland
 Portuguese Water Dog
 Rottweiler
 Saint Bernard
 Samoyed
 Siberian Husky

Standard Schnauzer

TOY GROUP

Cavalier King Charles Spaniel
 Chihuahua
 Italian Greyhound
 Maltese
 Miniature Pinscher
 Papillon
 Pekingese
 Pomeranian
 Poodle
 Pug
 Shih Tzu
 Silky Terrier
 Toy Fox Terrier
 Yorkshire Terrier

HOUND GROUP

Afghan Hound
 American Foxhound
 Basenji
 Basset Hound
 Beagle
 Black and Tan Coonhound
 Bloodhound
 Dachshund
 English Foxhound
 Greyhound
 Whippet

HERDING GROUP

Australian Cattle Dog
 Australian Shepherd
 Border Collie
 Cardigan Welsh Corgi
 Collie
 German Shepherd Dog
 Old English Sheepdog
 Pembroke Welsh Corgi
 Shetland Sheepdog

Cats

Abyssinian
American Shorthair
Burmese
Cornish Rex
Devon Rex
Exotic
Maine Coon
Manx
Persian
Ragdoll
Russian Blue
Siamese
Sphynx
Turkish Angora

Rabbits

American Fuzzy Lop
Angora
Californian
Dutch
Dwarf Hotot
English Spot
Flemish Giant
Jersey Wooly
Holland Lop
Netherland Dwarf
New Zealand
Polish
Mini-Rex
Satin

Birds

Cockatiel
Cockatoos
Love Birds
Parakeet
African Gray Parrot
Canary
Macaw
Mynah
Rainbow Lorikeet
Society Finch
Sun Conure
Zebra Finch

Small Mammals

Chinchilla
Degus
Ferret
Gerbils
Guinea Pig
Hamster
Hedgehog
Sugar Glider

Poultry

Chicken- Cornish
Chicken- Leghorns
Chicken- Rhode Island Red
Chicken- Plymouth Rock
Duck
Geese
Quail
Turkey

Other

Potbellied Pig

Reptiles

Chameleon
Gecko
Iguana
Lizard
Bearded Dragon
Snake
Turtle
Frog
Toad

Dairy Cattle

Ayrshire
Brown Swiss
Guernsey
Holstein
Jersey

Beef Cattle

Angus
Brahman
Charolais
Hereford
Simmental
Shorthorn

Swine

American Landrace
Berkshire
Chester White
Duroc
Hampshire
Yorkshire

Horse

Appaloosa
Arabian
Belgian
Clydesdale
Haflinger
Miniature
Morgan
Paint
Paso Fino
Percheron
Quarter Horse
Saddlebred
Standardbred (w/cart)
Tennessee Walking Horse
Thoroughbred
Donkey
Mule
Hinny

Goat

Alpine
Nubian
Angora
Boer
LaMancha
Oberhasli
Pygmy
Saanen
Toggenburg

Sheep

Angora
Cheviot
Columbia
Dorset
Hampshire
Jacob
Merino
Montendale
Rambouillet
Southdown
Suffolk