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. 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:

<table>
<thead>
<tr>
<th>Individual Points</th>
<th>Team Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Exam ...... 100 (2 pts/question)</td>
<td>400</td>
</tr>
<tr>
<td>Identification ................100</td>
<td>400</td>
</tr>
</tbody>
</table>

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


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

   • Order online: https://agrilifebookstore.org/publications_browse2.cfm?keywordid=4

Websites

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


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

### Equipment and Materials Identification List - Page 1

<table>
<thead>
<tr>
<th>Item</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambubag</td>
<td>Disposable hypodermic needles</td>
</tr>
<tr>
<td>Anesthetic machines</td>
<td>Drench gun</td>
</tr>
<tr>
<td>Animal clippers</td>
<td>Ear notcher</td>
</tr>
<tr>
<td>Autoclave</td>
<td>Ear tags</td>
</tr>
<tr>
<td>Autoclave tape indicator</td>
<td>Ear tag pliers</td>
</tr>
<tr>
<td>Backhaus towel clamps</td>
<td>Elastrator</td>
</tr>
<tr>
<td>Balling gun</td>
<td>Elizabethian collar</td>
</tr>
<tr>
<td>Bands (castration or docking)</td>
<td>Emasculators</td>
</tr>
<tr>
<td>Bandaging material- Elasticon</td>
<td>Endotracheal tubes</td>
</tr>
<tr>
<td>Bandaging material- roll gauze</td>
<td>Fecal loop</td>
</tr>
<tr>
<td>Bandaging material- vet wrap</td>
<td>Fecalizers</td>
</tr>
<tr>
<td>Basket muzzle</td>
<td>Feeding tube for small animals</td>
</tr>
<tr>
<td>Betadine</td>
<td>Fetal extractor</td>
</tr>
<tr>
<td>Brush - Body (soft bristle)</td>
<td>Fingertip toothbrush</td>
</tr>
<tr>
<td>Brush - Dandy (stiff bristle)</td>
<td>Forceps- Adson tissue</td>
</tr>
<tr>
<td>Brush - Slicker</td>
<td>Forceps - Alligator</td>
</tr>
<tr>
<td>Brush - Pin</td>
<td>Forceps- Allis tissue</td>
</tr>
<tr>
<td>Bulb syringe</td>
<td>Forceps- Babcock tissue</td>
</tr>
<tr>
<td>Cat bag</td>
<td>Forceps- Brown-Adson thumb</td>
</tr>
<tr>
<td>Carmalt</td>
<td>Forceps- Cire</td>
</tr>
<tr>
<td>Catch pole (dog snare)</td>
<td>Forceps- Halstead mosquito hemostatic</td>
</tr>
<tr>
<td>Catheter - IV</td>
<td>Forceps- Kelly</td>
</tr>
<tr>
<td>Catheter - butterfly</td>
<td>Forceps - Rat tooth thumb</td>
</tr>
<tr>
<td>Catheter - urine</td>
<td>Gag mouth speculum (small)</td>
</tr>
<tr>
<td>Centrifuge</td>
<td>Gag mouth speculum (large)</td>
</tr>
<tr>
<td>Chain twitch</td>
<td>Gavage needle</td>
</tr>
<tr>
<td>Chemical indicator strips</td>
<td>Gravity feeder / J tube</td>
</tr>
<tr>
<td>Clipper blades</td>
<td>Halter</td>
</tr>
<tr>
<td>Clipper comb</td>
<td>Head chute</td>
</tr>
<tr>
<td>Surgical drapes</td>
<td>Hog snare</td>
</tr>
<tr>
<td>Cold sterile tray</td>
<td>Hoof knife</td>
</tr>
<tr>
<td>Comb - Curry</td>
<td>Hoof nippers</td>
</tr>
<tr>
<td>Comb - Flea</td>
<td>Hoof pick</td>
</tr>
<tr>
<td>Comb - Scotch</td>
<td>Hoof rasp</td>
</tr>
<tr>
<td>Cover slips</td>
<td>Hoof trimmers</td>
</tr>
<tr>
<td>Dehorner - Barnes</td>
<td>Humane twitch</td>
</tr>
<tr>
<td>Dehorner - electric</td>
<td>Hydraulic chute</td>
</tr>
<tr>
<td>Dehorner - scoop or tube</td>
<td>Identification tag applicator</td>
</tr>
<tr>
<td>Dental floats</td>
<td>IV fluids</td>
</tr>
<tr>
<td>Dental retractor</td>
<td>IV administration</td>
</tr>
<tr>
<td>Dental scaler</td>
<td>Laryngoscopes</td>
</tr>
</tbody>
</table>
Equipment and Materials Identification List - Page 2

Lead rope
Lead shank
Lead gloves
Needle holder - Mayo-Hegar
Needle holder - Olsen-Hegar
Microscope slides
Muzzle - commercial
Nail clippers - guillotine
Nail clippers - plier
Obstetrical chain and handle
Ophthalmoscope
Otoscope
Paste gun
Pig tooth nippers
Pill counting tray
Radiology personal protective equipment
Rumen magnet
Scalpel blade
Scalpel handle
Scissors - Bandage
Scissors - Lister bandage
Scissors - Littauer suture removal
Scissors - Mayo dissecting
Scissors - Metzenbaum dissecting

Shedding blade
Silver nitrate sticks
Small animal oxygen cage
Snook ovariohysterectomy hook
Squeeze chute
Staple remover
Steel lift table
Stethoscope
Surgical cap
Surgical gloves
Surgical gown
Surgical masks
Surgical tray
Suture materials
Suture needle
Suture wire cutting scissors
Syringe - leur lock
Syringe - slip tip
Syringe - automatic, multi-dose
Tattooing instruments - small & large
Tourniquet
Trocar & cannula
Weight tape
<table>
<thead>
<tr>
<th>Parasite Identification List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blowfly (Family Calliphoridae)</td>
</tr>
<tr>
<td>Blowfly Maggot (Family Calliphoridae)</td>
</tr>
<tr>
<td>Cat Warble (Genus Cuterebra)</td>
</tr>
<tr>
<td>Cattle Grub (Genus Hypoderma)</td>
</tr>
<tr>
<td>Coccidia (Genus Isospora or Eimeria)</td>
</tr>
<tr>
<td>Demodectic Mite (Genus Demodex)</td>
</tr>
<tr>
<td>Ear Mite (Family Ascaridae; Genus Otodectes)</td>
</tr>
<tr>
<td>Fleas* (Genus Ctenocephalides)</td>
</tr>
<tr>
<td>Flea Larva (Genus Ctenocephalides)</td>
</tr>
<tr>
<td>Flea Tapeworm (Genus Dipyllidium)</td>
</tr>
<tr>
<td>Flea Tapeworm Egg (Genus Dipyllidium)</td>
</tr>
<tr>
<td>Flea Tapeworm Segment (Genus Dipyllidium)</td>
</tr>
<tr>
<td>Giardia (Genus Giardia)</td>
</tr>
<tr>
<td>Hard Tick (Family Ixodidae; Genus Amblyomma or Dermacentor)</td>
</tr>
<tr>
<td>Heartworm* (Genus Dirofilaria)</td>
</tr>
<tr>
<td>Heartworm Adult* (Genus Dirofilaria)</td>
</tr>
<tr>
<td>Heartworm Microfilaria* (Genus Dirofilaria)</td>
</tr>
<tr>
<td>Hookworm Adult* (Family Ancylostomatidae; Genus Ancylostoma, Uncinaria, Bunostomum or Globocephalus)</td>
</tr>
<tr>
<td>Hookworm Egg* (Family Ancylostomatidae; Genus Ancylostoma, Uncinaria, Bunostomum or Globocephalus)</td>
</tr>
<tr>
<td>Horse Bots* (Genus Gasterophilus)</td>
</tr>
<tr>
<td>Horse Strongyles* (Family Strongylidae; Genus Strongylus)</td>
</tr>
<tr>
<td>Lice - Biting (Order Mallophaga; Genus Bovicola or Trichodectes)</td>
</tr>
<tr>
<td>Lice - Sucking (Order Anoplura; Genus Linognathus or Hematopinus)</td>
</tr>
<tr>
<td>Liver Fluke (Class Trematoda; Genus Fasciola, Fascioloides or Dicrocoelium)</td>
</tr>
<tr>
<td>Lungworm (Family Metastrongylidae; Genus Metastrongylus, Dictyocaulus or Aelurostrongylus)</td>
</tr>
<tr>
<td>Mosquito Adult (Family Culicidae; Genus Anopheles, Culex or Aedes)</td>
</tr>
<tr>
<td>Mosquito Larva (Family Culicidae; Genus Anopheles, Culex or Aedes)</td>
</tr>
<tr>
<td>Pinworm (Genus Oxyuris)</td>
</tr>
<tr>
<td>Roundworm Adult* (Family Ascarididae or Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)</td>
</tr>
<tr>
<td>Roundworm Egg* (Family Ascarididae or Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)</td>
</tr>
<tr>
<td>Sarcoptic Mite (Family Ascaridae; Genus Sarcoptes or Notoedres)</td>
</tr>
<tr>
<td>Taenia Tapeworm* (Family Taeniidae; Genus Taenia)</td>
</tr>
<tr>
<td>Taenia Tapeworm Egg* (Family Taeniidae; Genus Taenia)</td>
</tr>
<tr>
<td>Taenia Tapeworm Segment* (Family Taeniidae; Genus Taenia)</td>
</tr>
<tr>
<td>Soft Tick (Family Argasidae; Genus Otobius or Argas)</td>
</tr>
<tr>
<td>Whipworm* (Genus Trichuris)</td>
</tr>
<tr>
<td>Whipworm Egg* (Genus Trichuris)</td>
</tr>
</tbody>
</table>

*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