



LOUISIANA FFA

CAREER DEVELOPMENT EVENT

VET SCIENCE

Veterinary Science Career Development Event

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.

Objectives

1. Participants will demonstrate professional ethics, decision-making, communication and problem-solving skills.
2. Participants will demonstrate technical competency with small and large animals in the areas of:
 - i. Anatomy and physiology
 - ii. Clinical procedures
 - iii. Identification
 - iv. Health and safety
 - v. Medical terminology

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.

Event Rules

1. Teams will consist of four members with all four members' scores counting toward total team score.
2. Tools and Equipment:
 - a. Equipment permitted: Pencils, calculators, clipboards, paper.
 - b. 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.
3. Any participant in possession of an electronic device in the event area is subject to disqualification.

Event Format

1. Written Exam - 100 points

The objective exam is designed to determine team members' broad understanding of the veterinary science field. The written exam will consist of 50 questions taken from a test bank generated from questions taken from the last five (5) years of tests from the National FFA Vet Science CDE. A new 50 question test will rotate onto the test bank and the oldest of the 5 will rotate off of the test bank each year for a total of 250 questions. (Revised 2018) 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
- Nutrition
- Husbandry

2. Contestants will have 40 minutes to complete the written exam portion of the contest. (updated 2023)

3. For Area contests only, 5 out of the 50 written test questions must be math problem-solving questions. The 5 questions will be part of the 100 point written exam total.(Adopted 2026)

4. Identification - 100 points total

Participants will identify equipment, parasites and breeds/species for a total of 100 points (2 points per item). Participants will write and shade in the corresponding reference on the Scantron scorecard. Fifty (50) minutes will be given for this activity. Identification lists are located at the end of this handbook. (Adopted 2018)

- a. Equipment/Materials – 50 points
Participants will identify 25 pieces of equipment/materials (actual equipment and photos). They will also need to have general knowledge about the use for each item.

b. Parasites/Microscopic – 30 points

Participants will identify 15 parasites/microscopic organisms (specimen and photos) and explain the life cycles of selected parasites.

c. Breeds/Species – 20 points

Participants will identify 10 breeds/species of small and large animals (photos).

*There will be no more than 2 breeds selected from each category. (Example: Under the Toy Group category, if Pugs and Poodles are chosen to be part of the ID, then the test creator can no longer choose breeds from the Toy Group category to complete the rest of the Breed ID.) **Adopted 2021**

5. *Practicum - 100 points total*

a. Math Applications Practicum – 100 points

The number of practicum questions will vary based on the type of activity that is assigned. Participants will have 30 minutes to complete the entire math application practicum. Questions may include conversions, dose calculations, dilutions, cost calculations and invoices.

Example:

Sophie, a golden retriever, and her owner have just moved from out-of-state and are reestablishing veterinarian relations at your clinic. Sophie's owner has provided you with her health records from their previous veterinarian. Sophie had been prescribed a diet plan by the previous veterinarian and had been coming into the clinic for weekly weight checks. Sophie's owner would like to continue the weekly checks with you. You weigh Sophie and record her weight as 19 kg. The owner would like you to tell her how much weight Sophie has lost.

Sophie's last recorded weight was 43.2 lb. How many pounds did Sophie lose since the last weighing?

ANSWER: Sophie has lost 1.4 lb. since the last recorded weighing.

Event Scoring

1. Individual Points

a. Written Exam 100 (2 pts/question)

b. Identification 100

c. Math Application Practicum 100

2. Maximum Total Individual Points: 300

3. Team Total: 300 x 4 members = 1,200 possible

4. Scantron scorecards may be used for all phases of this event. (Adopted 2018)

Tiebreakers

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

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. Make sure to use discretion when selecting website references by only using reputable, proven sites.

The following list contains references that may prove helpful during event preparation.

Written Exam:

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

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

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://agrilifebookstore.org/publications_browse2.cfm? Keyword id=4

Introduction to Veterinary Science. Lawhead, Baker. ISBN: 978-1-4283-1225-8

Clinical Procedures & Handling/Restraining Practicums: Veterinary Assisting: Fundamentals and Applications. Vanhorn, Clark. ISBN: 978-1-4354-5387-6

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

Clinical Procedures & Handling/Restraining Practicums (cont.): 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

Identification:

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

<http://loudoun.nvcc.edu/vetonline/vet121/instruments.htm>

<https://www.spectrumsurgical.com/product/10-0227/Surgical-Instrument-Flash-Cards.php>

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/>

Math Practicum:

Medical Mathematics and Dosage Calculations for Veterinary Professionals. Bill, Robert.
ISBN: 978-08138263

Equipment and Materials Identification List

- | | |
|--------------------------------------|---------------------------------------|
| 100. Anesthetic machines | 134. Forceps —Rochester Carmalt |
| 101. Autoclave | 135. Hog snare |
| 102. Autoclave tape indicator | 136. Hoof knife |
| 103. Backhaus towel clamps | 137. Hoof rasp |
| 104. Balling gun | 138. IV Fluid Bag |
| 105. Bandaging material — Elasticon | 139. Muzzle — basket |
| 106. Bandaging material — roll gauze | 140. Muzzle — nylon |
| 107. Bandaging material — vet wrap | 141. Needle holder — Olsen-Hegar |
| 108. Bands (castration or docking) | 142. Obstetrical chain and handle |
| 109. Catheter — IV | 143. Ophthalmoscope |
| 110. Catheter — Tomcat urinary | 144. Otoscope |
| 111. Cautery | 145. Pig tooth nippers |
| 112. Centrifuge | 146. Rumen magnet |
| 113. Chemical indicator strips | 147. Scalpel blade |
| 114. Dehorner — Barnes | 148. Scalpel handle |
| 115. Dehorner — electric | 149. Scissors — Utility Bandage |
| 116. Dental/Power Float | 150. Scissors — Lister bandage |
| 117. Dental scaler | 151. Scissors — Mayo dissecting |
| 118. Large Animal Ear Tagger | 152. Scissors — Metzenbaum dissecting |
| 119. Ear notcher | 153. Silver nitrate sticks |
| 120. Elastrator | 154. Snook ovariohysterectomy hook |
| 121. Electronic ID Reader | 155. Speculum — Equine |
| 122. Elizabethan collar | 156. Speculum — Frick/Bovine |
| 123. Emasculators | 157. Cattle Handling Restraint Device |
| 124. Endotracheal tubes | 158. Staple remover |
| 125. Fecal loop | 159. Stethoscope |
| 126. Fecalyzer | 160. Syringe — Leur Lock |
| 127. Fetal extractor — calf | 161. Syringe — Slip Tip |
| 128. Forceps — Allis tissue | 162. Syringe — automatic, multi-dose |
| 129. Forceps — Babcock tissue | 163. Tattooing instruments |
| 130. Forceps — Brown-Adson thumb | 164. Thermometer |
| 131. Forceps — Crile | 165. Trocar and cannula |
| 132. Forceps — Kelly | 166. Humane Twitch |
| 133. Forceps — Rat tooth thumb | |

Parasite/Microscopic Identification List

200. Cat Warble (Genus *Cuterebra*)
201. Coccidia (Genus *Isospora* or *Eimeria*)
202. Demodectic Mite (Genus *Demodex*)
203. Ear Mite (Family *Psoroptidae*; Genus *Otodectes*)
204. Flea Tapeworm Egg (Genus *Dipylidium*)
205. Flea Tapeworm Segment (Genus *Dipylidium*)
206. Giardia (Genus *Giardia*)
207. Heartworm Adult (Genus *Dirofilaria*)
208. Heartworm Microfilaria (Genus *Dirofilaria*)
209. Hookworm Adult (Family *Ancylostomatidae*; Genus *Ancylostoma*, *Uncinaria*, *Bunostomum* or *Globocephalus*)
210. Hookworm Egg (Family *Ancylostomatidae*; Genus *Ancylostoma*, *Uncinaria*, *Bunostomum* or *Globocephalus*)
211. Horse Strongyles (Family *Strongylidae*; Genus *Strongylus*)
212. Liver Fluke (Class Trematoda; Genus *Fasciola*, *Fascioloides* or *Dicrocoelium*)
213. Mosquito Larva (Family *Culicidae*; Genus *Anopheles*, *Culex* or *Aedes*)
214. Neutrophils
215. Platelets
216. Mammalian red blood cell (erythrocyte)
217. Avian red blood cell (erythrocyte)
218. Roundworm Adult (Family *Ascarididae* or *Toxocaridae*; Genus *Toxocara*, *Toxascaris*, *Ascaris*, *Parascaris* or *Neoascaris*)
219. Roundworm Egg (Family *Ascarididae* or *Toxocaridae*; Genus *Toxocara*, *Toxascaris*, *Ascaris*, *Parascaris* or *Neoascaris*)
220. Sarcoptic Mite (Family *Sarcoptidae*; Genus *Sarcoptes* or *Notoedres*)
221. Taenia Tapeworm Egg (Family *Taeniidae*; Genus *Taenia*)
222. Taenia Tapeworm Segment (Family *Taeniidae*; Genus *Taenia*)
223. Tick — American Dog (Family *Dermacentor*; Genus *variabilis*)
224. Tick — Black Legged Deer (Family *Ixodes*; Genus *scapularis*)
225. Tick — Brown Dog (Family *Rhipicephalus*; Genus *sanguineus*)
226. Tick — Lonestar (Family *Amblyomma*; Genus *americanum*)
227. Whipworm Egg (Genus *Trichuris*)
228. Whipworm (Genus *Trichuris*)

Breed/Species Identification List

DOGS

Herding Group

- 300. Australian Cattle Dog
- 301. Australian Shepherd
- 302. Border Collie
- 303. Collie
- 304. German Shepherd Dog
- 305. Old English Sheepdog
- 306. Pembroke Corgi

Hound Group

- 307. Basset Hound
- 308. Beagle
- 309. Bloodhound
- 310. Dachshund
- 311. Greyhound
- 312. Rhodesian Ridgeback

Non-Sporting Group

- 313. Bichon Frise
- 314. Boston Terrier
- 315. Bulldog
- 316. Chow Chow
- 317. Dalmatian
- 318. Poodle

Sporting Group

- 319. Brittany Spaniel
- 320. Cocker Spaniel
- 321. English Setter
- 322. German Shorthaired Pointer
- 323. Golden Retriever
- 324. Irish Setter
- 325. Labrador Retriever
- 326. Weimaraner

Terrier Group

- 327. Bull Terrier
- 328. Cairn Terrier
- 329. Parson Russell Terrier
- 330. Scottish Terrier
- 331. West Highland White Terrier

Toy Group

- 332. Cavalier King Charles Spaniel
- 333. Chihuahua
- 334. Miniature Pinscher
- 335. Papillon
- 336. Pekingese
- 337. Pomeranian
- 338. Toy Poodle
- 339. Pug
- 340. Shih Tzu
- 341. Yorkshire Terrier

Working Group

- 342. Bernese Mountain Dog
- 343. Boxer
- 344. Doberman Pinscher
- 345. Great Dane
- 346. Great Pyrenees
- 347. Mastiff
- 348. Newfoundland
- 349. Rottweiler
- 350. Saint Bernard
- 351. Siberian Husky

CATS

- 352. Abyssinian
- 353. American Shorthair
- 354. Burmese
- 355. Maine Coon
- 356. Manx
- 357. Persian
- 358. Ragdoll
- 359. Russian Blue
- 360. Siamese
- 361. Sphynx

BIRDS

- 362. African Gray Parrot
- 363. Canary
- 364. Cockatiel
- 365. Cockatoos
- 366. Love Birds
- 367. Macaw
- 368. Parakeet
- 369. Sun Conure
- 370. Zebra Finch

REPTILES

- 371. Bearded Dragon
- 372. Chameleon
- 373. Gecko
- 374. Iguana
- 375. Ball Python
- 376. Burmese Python
- 377. Corn Snake

POULTRY

- 378. Chicken — Cornish
- 379. Chicken — Leghorns
- 380. Chicken — Plymouth Rock
- 381. Chicken — Rhode Island Red
- 382. Duck
- 383. Turkey

SMALL MAMMALS

- 384. Ferret
- 385. Guinea Pig
- 386. Hamster
- 387. Hedgehog
- 388. Mouse
- 389. Rat

RABBITS

- 390. Angora
- 391. Californian
- 392. Dutch
- 393. English Spot
- 394. Holland Lop
- 395. Mini-Rex
- 396. Netherland Dwarf
- 397. New Zealand

DAIRY CATTLE

- 398. Ayrshire
- 399. Brown Swiss
- 400. Guernsey
- 401. Holstein
- 402. Jersey

BEEF CATTLE

- 403. Angus
- 404. Brahman
- 405. Charolais
- 406. Hereford
- 407. Shorthorn

HORSE

- 408. Appaloosa
- 409. Arabian
- 410. Belgian
- 411. Clydesdale
- 412. Morgan
- 413. Paint
- 414. Percheron
- 415. Quarter Horse
- 416. Saddlebred
- 417. Tennessee Walking Horse
- 418. Thoroughbred

GOAT

- 419. Nubian
- 420. Angora
- 421. Boer
- 422. LaMancha

SHEEP

- 423. Columbia
- 424. Dorper
- 425. Dorset
- 426. Hampshire
- 427. Merino
- 428. Rambouillet
- 429. Southdown
- 430. Suffolk

SWINE

- 431. American Landrace
- 432. Berkshire
- 433. Chester White
- 434. Duroc
- 435. Hampshire
- 436. Yorkshire