

VETERINARY SCIENCE

Revised 6/2018

Purpose and Standards

The Veterinary Science event seeks to effectively prepare the students for the expectations of the animal health care and services (Veterinary Hospitals/Clinics, Grooming Facilities, Pet Stores, Kennels/Boarding Facilities, and Feed Stores) workplace. Workers seeking careers in the animal health care field must develop a high degree of knowledge, skill and ability to solve difficult problems. This event blends the testing of skills and knowledge required for careers in the animal science career pathway. California Career Technical Education Model Curriculum Standards addressed by this event include:

Foundation Standards: Listening and Speaking 1.1, 2.2c, 2.2f, 1.8, Technology 4.2, 4.6, Health and Safety 6.2, 6.5, Ethics and Legal Responsibilities 8.3, Leadership and Teamwork 9.1, 9.2, 9.3.

Animal Science Pathways: D1.3, D1.4, D3.1, D3.2, D4.1, D5.1, D6.1-D6.5, D9.1, D9.4, D10.1, D10.2, D11.1-D11.3.

Contestants

The contest team will be made up of four members. Each member will compete in all events individually. All four scores will make up the team score.

To be eligible to compete at the state finals contest, a team must compete in a minimum of three of the following field days: CSU Chico, Arbuckle, UC Davis, Modesto JC, Reedley CC, CSU Fresno, Lassen CC, Hemet Field Day, San Diego Section Field Day, Dinuba, Clovis, Norte Vista FFA, Arroyo Grande, Gridley, or Animal Care Clinic/SLO HS Contest. Only the top 24 teams, determined mathematically by a tabulations coordinator, will be eligible to compete at the state finals contest. The formula to calculate the 24 qualifying teams will be:

$$\text{Weighted Score} = (51 - \text{Ranking}) + (\# \text{ of teams} - \text{Rank})/2$$

Weighted score will be based on number of teams that complete in any portion of a contest.

Classes

The contest will include:

	Class	Individual Points	Team Points
A.	Identification Tests		
	1. Equipment and Materials	150	600
	2. Parasites	50	200
	3. Breed identification	100	400
B.	Practicum #1	50	200
	Practicum #2	50	200
	Practicum #3	50	200
C.	General Knowledge Test (50 questions)	100	400
	TOTAL POINTS	550	2,200

Tie Breaker

1. Individual or team ties will be broken with highest General Knowledge test score.
2. If there still is a tie, it will be broken with highest Breed I.D. test score.
3. If there still is a tie, Individual or team ties will be broken with highest practicum score.

Sub-contest Awards

Sub-contest awards will be given for high teams and individuals in the following areas: Identification, Practicums, and Medical Math / Knowledge Test.

Rules

- I. Contestants in this contest will be divided into groups. Only one group will be allowed at one site at one time. Only one member of a team shall be allowed in a group.
- II. All participants must wear either official FFA dress or team scrubs (solid color tops and bottoms) to compete at all qualifying contests. All members must wear official FFA dress at the state finals registration and awards ceremonies (changing into scrubs can happen after uniform check and before the regular start time of the contest).
- III. All equipment and practicum materials needed by the contestants will be available at the judging sites.
- IV. All contestants must fill out the official score sheets and will be graded according to the points shown on the score card.
- V. The contestants will be allowed 45 minutes at each test site to complete that section.
Equipment/Materials, Parasites/Breed Identification, General Knowledge Test – three rotations.
- VI. Three Practicums will be allowed 90 minutes for completion.
- VII. Identification Test (Time: Equipment/Materials = 45 minutes, Breed/Parasites = 45 minutes)
PowerPoint slides will be set at 15 seconds per picture, the PowerPoint will be ran through twice and the slides will be numbered.
 - A. Equipment and Materials can be picked at random from the approved National Curricular Code list. Seventy-five items will be chosen for this contest. Two points for each correct answer.
 - B. Parasites are to be picked from the National Curricular Code list provided. The specie and location on the animal will be given. Twenty-five items will be used in the contest. Two points for each correct answer.
 - C. Students will identify 50 animals from the approved National Curricular Code list. Each correct answer will be worth two points.
- VIII. Practicums (Time: 90 minutes)
Practicums will consist of three from the list of current year practicums: Students will go in order from one practicum to the other until all contestants are finished in each group. The list of practicums will come from the list provided by the California FFA contest for Veterinary Science. There will be a three minute maximum time limit for each of the individual practicums.

2018-2019 Practicum

Administering Ophthalmic Medication- *Clinical*

Applying a Gauze Dog Muzzle-*Handling*

Prescription Filling- *Clinical*

Fecal Flotation with Fecalyzers- *Clinical*

Haltering a Horse- *Handling*

Removing a cat from a cage and placing it in a cat bag- *Handling*

Restraint of the cat for Jugular Venipuncture- *Handling*

2019-2020 Practicum

Administering an Intramuscular Injection- *Clinical*
Administration Oral Tablet/Capsule- *Clinical*
Applying a Cat Muzzle- *Handling*
Opening a Surgery Pack- *Clinical*
Applying Elizabethan Collar- *Handling*
Removing a Dog from a Floor Level Cage to Restrain for Lateral Saphenous Venipuncture-
Handling
Snare Restraint of the Pig- *Handling*

2020-2021 Practicum

Administering a Subcutaneous Injection- *Clinical*
Applying a Nylon Dog Muzzle- *Handling*
Placing a Tail Tie- *Handling*
Preparing a Surgical Pack for Sterilization-*Clinical*
Removal of Sutures- *Clinical*
Restraint of a Dog for Jugular Venipuncture- *Handling*
Restraint of the Cat for Cephalic IV Catheter Placement- *Handling*

2021-2022 Practicum

Administering Aural Medication- *Clinical*
Bandage Removal- *Clinical*
Filling a Syringe for Injection- *Clinical*
Haltering Ruminants- *Handling*
Restraint of a Rabbit- *Handling*
Restraint of a Dog for Cephalic Venipuncture- *Handling*
Restraint of the Cat in Lateral Recumbency for Femoral Venipuncture- *Handling*
Surgical Site Preparation- *Clinical*

- IX. General Knowledge and Medical Math Test (Time: 45 minutes)
- A. The written exam will consist of 50 multiple choice questions. Ten of the 50 questions will be medical math questions. Questions will come from a set of approved texts, of no more than five, that will be selected by a committee made up of the top five coaches at State Finals of the revision year to be decided by the end of CATA Summer Conference.
Veterinary Assisting: Fundamental and Applications. Vanhorn, Clark. ISBN:978-1-4354-5387-6
 - B. National FFA Medical Math Resource Sheet will be provided on exam (Source – National FFA) FFA.org/SiteCollectionDocuments/Math%20Resource.pdf
 - C. Contest sites will use provided medical math question bank to create representative, but not identical, problems for each approved contest.
*Note: Bank of questions will be provided by September 1, 2018. Last year’s top 5 coaches will make the math test bank. This will give contest host sites ample time to create the 10 questions.
 - D. Test will be generated in scantron form including multiple choice, true/false and/or matching.
 - E. The test will be 50 questions in length with each question being worth 2 points each.

- F. Students are allowed to have basic (non-programming) calculators for the test to the General Knowledge Test section.

Equipment and Materials Identification List

- | | |
|---|--|
| 100. Ambubag | 144. Hoof knife |
| 101. Anesthetic machines | 145. Hoof rasp |
| 102. Autoclave | 146. IV administration set |
| 103. Autoclave tape indicator | 147. Laparoscope |
| 104. Backhaus towel clamps | 148. Laryngoscopes |
| 105. Balling gun | 149. Muzzle - basket |
| 106. Bandaging material- Elasticon | 150. Muzzle - nylon |
| 107. Bandaging material– roll gauze | 151. Needle holder – Mayo-Hegar |
| 108. Bandaging material– vet wrap | 152. Needle holder – Olsen-Hegar |
| 109. Bands (castration or docking) | 153. Obstetrical chain and handle |
| 110. Cat bag | 154. Ophthalmoscope |
| 111. Catch pole (dog snare) | 155. Otoscope |
| 112. Catheter - butterfly | 156. Pig tooth nippers |
| 113. Catheter - IV | 157. Radiology personal protective equipment |
| 114. Catheter – Tomcat urinary | 158. Rectal prolapse ring -swine |
| 115. Centrifuge | 159. Rumen magnet |
| 116. Chemical indicator strips | 160. Scalpel blade |
| 117. Cold sterile tray | 161. Scalpel handle |
| 118. Dehorner - Barnes | 162. Scissors – Suture wire cutting |
| 119. Dehorner - electric | 163. Scissors - Bandage |
| 120. Dental floats | 164. Scissors – Lister bandage |
| 121. Dental scaler | 165. Scissors – Littauer suture removal |
| 122. Drench gun – small ruminant | 166. Scissors – Mayo dissecting |
| 123. Ear notcher | 167. Scissors - Metzenbaum dissecting |
| 124. Elastrator | 168. Silver nitrate sticks |
| 125. Elizabethan collar | 169. Small animal oxygen cage |
| 126. Emasculators | 170. Snook ovariohysterectomy hook |
| 127. Endoscope | 171. Speculum – large animal oral |
| 128. Endotracheal tubes | 172. Speculum – small animal oral |
| 129. Fecal loop | 173. Speculum – vaginal |
| 130. Fecalyzers | 174. Squeeze chute |
| 131. Feeding tube for small animals | 175. Staple remover |
| 132. Fetal extractor - calf | 176. Stethoscope |
| 133. Forceps - Alligator | 177. Surgical drapes |
| 134. Forceps – Allis tissue | 178. Suture needle – cutting |
| 135. Forceps – Babcock tissue | 179. Suture needle – taper |
| 136. Forceps – Brown-Adson thumb | 180. Syringe – automatic, multidose |
| 137. Forceps – Crile | 181. Tattooing instruments – small and large |
| 138. Forceps - Kelly | 182. Tonometer |
| 139. Forceps – Halstead mosquito hemostatic | 183. Tourniquet |
| 140. Forceps – Rat tooth thumb | 184. Trocar and cannula |
| 141. Gravity feeder/J tube | 185. Twitch chain |
| 142. Head gate | 186. Twitch handle |
| 143. Hog snare | |

Parasite / Microscopic Identification List

187. Blowfly (Family Calliphoridae)
188. Calcium oxalate crystals
189. Cat Warble (Genus Cuterebra)
190. Cocci (bacteria)
191. Coccidia (Genus Isospora or Eimeria)
192. Demodectic Mite (Genus Demodex)
193. Ear Mite (Family Psoroptidae; Genus Otodectes)
194. Eosinophils
195. Epithelial cells (urine)
196. Flea Larva (Genus Ctenocephalides)
197. Flea Tapeworm Egg* (Genus Dipylidium)
198. Flea Tapeworm Segment* (Genus Dipylidium)
199. Flea Tapeworm* (Genus Dipylidium)
200. Fleas* (Genus Ctenocephalides)
201. Giardia* (Genus Giardia)
202. Heartworm Adult* (Genus Dirofilaria)
203. Heartworm Microfilaria* (Genus Dirofilaria)
204. Hookworm Adult* (Family Ancylostomatidae; Genus Ancylostoma, Uncinaria, Bunostomum or Globocephalus)
205. Hookworm Egg* (Family Ancylostomatidae; Genus Ancylostoma, Uncinaria, Bunostomum or Globocephalus)
206. Horse Bots* (Genus Gasterophilus)
207. Horse Strongyles* (Family Strongylidae; Genus Strongylus)
208. Lice - Biting (Order Mallophaga; Genus Bovicola or Trichodectes)
209. Lice - Sucking (Order Anoplura; Genus Linognathus or Hematopinus)
210. Liver Fluke (Class Trematoda; Genus Fasciola, Fascioloides or Dicrocoelium)
211. Mosquito Adult (Family Culicidae; Genus Anopheles, Culex or Aedes)
212. Mosquito Larva (Family Culicidae; Genus Anopheles, Culex or Aedes)
213. Neutrophils
214. Platelets
215. Red Blood cell (erythrocyte)
216. Rod (bacteria)
217. Roundworm Adult* (Family Ascarididae or Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)
218. Roundworm Egg* (Family Ascarididae or Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)
219. Sarcoptic Mite (Family Sarcoptidae; Genus Sarcoptes or Notoedres)
220. Struvite crystals (triple magnesium phosphate)
221. Taenia Tapeworm Egg* (Family Taeniidae; Genus Taenia)
222. Taenia Tapeworm Segment* (Family Taeniidae; Genus Taenia)
223. Taenia Tapeworm* (Family Taeniidae; Genus Taenia)
224. Tick – American Dog (Family Dermacentor; Genus variabilis)
225. Tick – Black Legged Deer (Family ixodes; Genus scapularis)
226. Tick – Brown Dog (Family Rhipicephalus; Genus Sanguineus)
227. Tick – Lonestar (Family Amblyomma; Genus americanum)
228. Whipworm Egg* (Genus Trichuris)
229. Whipworm* (Genus Trichuris)
230. Yeast (cytology)

*Asterisk indicates which parasite life cycles could have questions.

Breed/Species Identification List**DOGS****Herding Group**

- 231. Australian Cattle Dog
- 232. Australian Shepherd
- 233. Border Collie
- 234. Collie
- 235. German Shepherd Dog
- 236. Old English Sheepdog
- 237. Pembroke Welsh Corgi
- 238. Shetland Sheepdog

Hound Group

- 239. Afghan Hound
- 240. Basenji
- 241. Basset Hound
- 242. Beagle
- 243. Black and Tan Coonhound
- 244. Bloodhound
- 245. Dachshund
- 246. Greyhound
- 247. Rhodesian Ridgeback

Non-Sporting Group

- 248. Bichon Frise
- 249. Boston Terrier
- 250. Bulldog
- 251. Chinese Shar-Pei
- 252. Chow Chow
- 253. Dalmatian
- 254. Poodle

Sporting Group

- 255. Brittany Spaniel
- 256. Cocker Spaniel
- 257. English Setter
- 258. German Shorthaired Pointer
- 259. Golden Retriever
- 260. Irish Setter
- 261. Labrador Retriever
- 262. Weimaraner

Terrier Group

- 263. Bull Terrier
- 264. Cairn Terrier
- 265. Parson Russell Terrier
- 266. Scottish Terrier
- 267. West Highland White Terrier

Toy Group

- 268. Cavalier King Charles Spaniel
- 269. Chihuahua
- 270. Miniature Pinscher
- 271. Papillon
- 272. Pekingese
- 273. Pomeranian
- 274. Poodle
- 275. Pug
- 276. Shih Tzu
- 277. Yorkshire Terrier

Working Group

- 278. Bernese Mountain Dog
- 279. Boxer
- 280. Doberman Pinscher
- 281. Great Dane
- 282. Great Pyrenees
- 283. Mastiff
- 284. Newfoundland
- 285. Portuguese Water Dog
- 286. Rottweiler
- 287. Saint Bernard
- 288. Siberian Husky
- 289. Standard Schnauzer

CATS

- 290. Abyssinian
- 291. American Shorthair
- 292. Burmese
- 293. Maine Coon
- 294. Manx
- 295. Persian
- 296. Ragdoll
- 297. Russian Blue
- 298. Siamese
- 299. Sphynx

BIRDS

- 300. African Gray Parrot
- 301. Canary
- 302. Cockatiel
- 303. Cockatoos
- 304. Love Birds
- 305. Macaw
- 306. Parakeet
- 307. Sun Conure
- 308. Zebra Finch

REPTILES

- 309. Bearded Dragon
- 310. Chameleon
- 311. Gecko
- 312. Iguana

POULTRY

- 313. Chicken – Cornish
- 314. Chicken – Leghorns
- 315. Chicken – Plymouth Rock
- 316. Chicken – Rhode Island Red
- 317. Duck
- 318. Geese
- 319. Quail
- 320. Turkey

Breed/Species Identification List - continued**SMALL MAMMALS**

- 321. Chinchilla
- 322. Ferret
- 323. Gerbils
- 324. Guinea Pig
- 325. Hamster
- 326. Hedgehog
- 327. Sugar Glider

RABBITS

- 328 Angora
- 329. Californian
- 330. Dutch
- 331. English Spot
- 332. Holland Lop
- 333. Mini-Rex
- 334. Netherland Dwarf
- 335. New Zealand

DAIRY CATTLE

- 336. Ayrshire
- 337. Brown Swiss
- 338. Guernsey
- 339. Holstein
- 340. Jersey

BEEF CATTLE

- 341. Angus
- 342. Brahman
- 343. Charolais
- 344. Hereford
- 345. Shorthorn
- 346. Simmental

HORSE

- 347. Appaloosa
- 348. Arabian
- 349. Belgian
- 350. Clydesdale
- 351. Morgan
- 352. Paint
- 353. Percheron
- 354. Quarter Horse
- 355. Saddlebred
- 356. Tennessee Walking Horse
- 357. Thoroughbred

GOAT

- 358. Alpine
- 359. Nubian
- 360. Angora
- 361. Boer
- 362. LaMancha
- 363. Saanen
- 364. Toggenburg

SHEEP

- 365. Columbia
- 366. Dorper
- 367. Dorset
- 368. Hampshire
- 369. Merino
- 370. Rambouillet
- 371. Southdown
- 372. Suffolk

SWINE

- 373. American Landrace
- 374. Berkshire
- 375. Chester White
- 376. Duroc
- 377. Hampshire
- 378. Yorkshire