

## Veterinary Science

Revised 6/2017

### 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. The three high individuals 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, CSU Pomona/Mt. San Antonio CC, San Diego Section Field Day, Dinuba, Clovis, or Animal Care Clinic 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:

	<b>Class</b>	<b>Individual Points</b>	<b>Team Points</b>
	Identification Tests		
	1. Equipment and Materials	150	450
	2. Parasites	50	150
	3. Breed identification	100	300
	Practicum #1	50	150
	Practicum #2	50	150

	Practicum #3	50	150
	General Knowledge Test (50 questions)	100	300
	TOTAL POINTS	550	1,650

#### 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 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 equipment and practicum materials needed by the contestants will be available at the judging sites.
- III. All contestants must fill out the official score sheets and will be graded according to the points shown on the score card.
- IV. 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.
- V. Three Practicums will be allowed 90 minutes for completion.
- VI. 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 list. Seventy-five items will be chosen for this contest. Two points for each correct answer.
  - B. Parasites are to be picked from the 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 list. Each correct answer will be worth two points.
- VII. 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 National FFA contest for Veterinary Science. The National Rubric will be used. The score will be doubled to make each practicum worth 50 points. There will be a three minute maximum time limit for each of the individual practicums.

#### Practicum List Examples:

##### 2017-2018 Practicum

Administrating Aural medication

Bandage removal  
Carrying a Cat  
Filling a syringe  
Haltering cattle  
Removing a dog from a floor level cage or kennel  
Restraint of the Cat for the femoral Venipuncture  
Restraint of the dog in Sternal Recumbency  
Restraint of a rabbit  
Tying a bowline knot  
Tying a reefer knot

#### 2018-2019 Practicum

Administering Ophthalmic medication  
Applying a gauze dog muzzle  
Cat Stretch- restraint of the cat lateral recumbency  
Fecal flotation with fecalizer  
Haltering a Horse  
Open a gown and gloves  
Restraint of a small dog in lateral recumbency  
Restraint of the cat for Jugular Venipuncture  
Tying a half hitch  
Use a microscope  
Using a Cat Bag

#### 2019-2020 Practicum

Administering an Intramuscular injection  
Administering topical parasiticide  
Administering topical wound treatment  
Applying a cat muzzle  
Opening a surgery pack  
Prepare a Gram- Stained slide  
Prescription filling  
Removing a cat from a cage  
Restraint of the dog for Venipuncture of Lateral Saphenous vein  
Tying a double half hitch knot  
Tying a square Knot

#### 2020-2021 Practicum

Administering a subcutaneous injection  
Applying a commercial dog muzzle  
Bandage Application  
Building a temporary rope halter for a cow  
Collect a sample of dermatophyte culture and Inoculate Dermatophyte culture

Placing a tail tie  
Preparing a surgical pack for sterilization  
Removal of sutures  
Restraint of the cat for Cephalic IV Catheter placement  
Restraint of a dog for Cephalic Venipuncture  
Restraint of a dog for Jugular Venipuncture  
Surgical Preparation

VIII. General Knowledge Test (Time: 45 minutes)

- A. The written exam will consist of 50 multiple choice questions 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. Test will be generated in scantron form including multiple choice, true/false and/or matching.
- C. The test will be 50 questions in length with each question being worth 2 points each.
- D. Students are allowed to have basic (non-programming) calculators for the test to the General Knowledge Test section.

**Equipment and Materials Identification List**

Ambubag	Ear tag (metal) pliers
Anesthetic machines	Elastrator
Animal clippers	Elizabethian collar
Autoclave	Emasculators
Autoclave tape indicator	Endotracheal tubes
Backhaus towel clamps	Fecal loop
Balling gun	Fecalyzers
Bands (castration or docking)	Fetal extractor
Bandaging material- Elasticon	Fingertip toothbrush

Bandaging material– roll gauze	Forceps - Alligator
Bandaging material– vet wrap	Forceps- Allis tissue
Betadine	Forceps- Babcock tissue
Brush - Body (soft bristle)	Forceps- Brown-Adson thumb
Brush - Dandy (stiff bristle)	Forceps- Crile
Brush - Slicker	Forceps- Halstead mosquito hemostatic
Brush - Pin	Forceps- Kelly
Bulb syringe	Forceps - Rat tooth thumb
Cat bag	Gag mouth speculum (small)
Carmalt	Gag mouth speculum (large)
Catch pole (dog snare)	Gavage needle
Catheter - IV	Gravity feeder / J tube
Catheter - butterfly	Halter
Catheter - urine	Head chute
Centrifuge	Hog snare
Chain twitch	Hoof knife
Chemical indicator strips	Hoof nippers
Clipper blades	Hoof pick
Clipper comb	Hoof rasp
Surgical drapes	Hoof trimmers
Cold sterile tray	Humane twitch
Comb - Curry	Identification tag applicator
Comb - Flea	IV fluids
Comb - Scotch	IV administration

Cover slips	Laryngoscopes
Dehorner - Barnes	Lead rope
Dehorner - electric	Lead shank
Dehorner - scoop or tube	Needle holder – Mayo-Hegar
Dental floats	Needle holder – Olsen-Hegar
Dental retractor	Microscope slides
Dental scaler	Muzzle - basket
Disposable hypodermic needles	Muzzle – commercial
Drench gun	Nail clippers - guillotine
Ear notcher	Nail clippers - plier
Ear tags	Obstetrical chain and handle

**Equipment and Materials Identification List - continued**

Ophthalmoscope	Staple remover
Otoscope	Steel lift table
Paste gun	Stethoscope
Pig tooth nippers	Surgical cap
Pill counting tray	Surgical gloves
Radiology personal protective equipment	Surgical gown
Rumen magnet	Surgical masks
Scalpel blade	Surgical tray
Scalpel handle	Suture materials
Scissors – Bandage	Suture needle
Scissors – Lister bandage	Suture wire cutting scissors

Scissors – Littauer suture removal	Syringe - leur lock
Scissors – Mayo dissecting	Syringe - slip tip
Scissors – Metzenbaum dissecting	Syringe - automatic, multi-dose
Shedding blade	Tattooing instruments - small & large
Silver nitrate sticks	Tourniquet
Small animal oxygen cage	Trocar & cannula
Snook ovariohysterectomy hook	Weight tape
Squeeze chute	

### **Parasite Identification List**

Blowfly (Family *Calliphoridae*)

Blowfly Maggot (Family *Calliphoridae*)

Cat Warble (Genus *Cuterebra*)

Cattle Grub (Genus *Hypoderma*)

Coccidia (Genus *Isospora* or *Eimeria*)

Demodectic Mite (Genus *Demodex*)

Ear Mite (Family *Ascaridae*; Genus *Otodectes*)

Fleas\* (Genus *Ctenocephalides*)

Flea Larva (Genus *Ctenocephalides*)

Flea Tapeworm (Genus *Dipylidium*)

Flea Tapeworm Egg (Genus Dipylidium)

Flea Tapeworm Segment (Genus Dipylidium)

Giardia (Genus Giardia)

Hard Tick (Family Ixodidae; Genus Amblyomma or Dermacentor)

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)

Liver Fluke (Class Trematoda; Genus Fasciola, Fascioloides or Dicrocoelium)

Lungworm (Family Metastrongylidae; Genus Metastrongylus, Dictyocaulus or Aelurostrongylus)

Mosquito Adult (Family Culicidae; Genus Anopheles, Culex or Aedes)

Mosquito Larva (Family Culicidae; Genus Anopheles, Culex or Aedes)

Pinworm (Genus Oxyuris)

Roundworm Adult\* (Family Ascarididae or Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)

Roundworm Egg\* (Family Ascarididae or Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)

Sarcoptic Mite (Family Ascaridae; Genus Sarcoptes or Notoedres)

Taenia Tapeworm\* (Family Taeniidae; Genus Taenia)

Taenia Tapeworm Egg\* (Family Taeniidae; Genus Taenia)



Taenia Tapeworm Segment\* (Family Taeniidae; Genus Taenia)

Whipworm\* (Genus Trichuris)

Whipworm Egg\* (Genus Trichuris)

\*Asterisk indicates which parasite life cycles could have questions.

### **Breed Identification List**

#### **Dogs**

##### **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

##### **Herding Group**

Australian Cattle Dog

Australian Shepherd

Border Collie

Cardigan Welsh Corgi

Collie

German Shepherd Dog

Old English Sheepdog

Pembroke Welsh Corgi

Shetland Sheepdog

##### **Working Group**

Akita

Alaskan Malamute

##### **Toy Group**

Cavalier King Charles  
Spaniel

Chihuahua

Italian Greyhound

Maltese

Miniature Pinscher

Papillon

Pekingese

Pomeranian

Poodle

Pug

Shih Tzu

Silky Terrier

Toy Fox Terrier

Bulldog	Bernese Mountain Dog	Yorkshire Terrier
Chinese Shar-Pei	Boxer	
Chow Chow	Bullmastiff	<b>Hound Group</b>
Dalmatian	Doberman Pinscher	Afghan Hound
Lhasa Apso	Giant Schnauzer	American Foxhound
Poodle	Great Dane	Basenji
	Great Pyrenees	Basset Hound
<b>Terrier Group</b>	Mastiff	Beagle
Bull Terrier	Newfoundland	Black and Tan Coonhound
Cairn Terrier	Portuguese Water Dog	Bloodhound
Miniature Schnauzer	Rottweiler	Dachshund
Parson Russell Terrier	Saint Bernard	English Foxhound
Scottish Terrier	Samoyed	Greyhound
Smooth Fox Terrier	Siberian Husky	Whippet
West Highland White Terrier	Standard Schnauzer	
Wire Fox Terrier		

<b>Small Mammals</b>	<b>Birds</b>	<b>Reptiles</b>
Chinchilla	Cockatiel	Chameleon
Degus	Cockatoos	Gecko
Ferret	Love Birds	Iguana
Gerbils	Parakeet	Bearded Dragon
Guinea Pig	African Gray Parrot	Snake

Hamster	Canary	Turtle
Hedgehog	Macaw	Frog
Sugar Glider	Mynah	Toad
	Rainbow Lorikeet	
	Society Finch	
	Sun Conure	
	Zebra Finch	

#### **Breed Identification List - continued**

<b>Cats</b>	<b>Poultry</b>	<b>Other</b>
Abyssinian	Chicken-Cornish	Potbellied Pig
American Shorthair	Chicken-Leghorns	
Burmese	Chicken- Rhode Island Red	<b>Horse</b>
Cornish Rex	Chicken-Plymouth Rock	Appaloosa
Devon Rex	Duck	Arabian
Exotic	Geese	Belgian
Maine Coon	Quail	Clydesdale
Manx	Turkey	Haflinger
Persian		Miniature
Ragdoll	<b>Dairy Cattle</b>	Morgan
Russian Blue	Ayrshire	Paint
Siamese	Brown Swiss	Paso Fino
Sphynx	Guernsey	Percheron
Turkish Angora	Holstein	Quarter Horse
	Jersey	Saddlebred

**Rabbits**

American Fuzzy Lop

Angora

Californian

Dutch

Dwarf Hotot

English Spot

Flemish Giant

Jersey Woolly

Holland Lop

Netherland Dwarf

New Zealand

Polish

Mini-Rex

Satin

**Beef Cattle**

Angus

Brahman

Charolais

Hereford

Simmental

Shorthorn

**Swine**

American Landrace

Berkshire

Chester White

Duroc

Hampshire

Yorkshire

Standardbred (w/cart)

Tennessee Walking Horse

Thoroughbred

Donkey

Mule

**Goat**

Alpine

Nubian

Angora

Boer

LaMancha

Oberhasli

Pygmy

Saanen

Toggenburg

**Dairy Cattle**

Ayrshire (1200-1400 lbs)

Brown Swiss

Guernsey

Holstein (Approx. 1500  
lbs)

Jersey

**Sheep**

Cheviot

Columbia

Dorset

Hampshire

Jacob

Merino

Montendale

Rambouillet

Southdown

Suffolk

## Rubrics

Official Rubrics for each practicum can be found at the National FFA website:

[https://www.ffa.org/SiteCollectionDocuments/cde\\_vetscience.pdf](https://www.ffa.org/SiteCollectionDocuments/cde_vetscience.pdf)

### EXAMPLE RUBRIC

Veterinary Science  
Handling and Restraining Practicum

Carrying a Cat

Participant Name: \_\_\_\_\_ State: \_\_\_\_\_

Participant must talk through practicum steps with judge.

Criteria	Points Possible	Points Earned
1. The student ensures that the cat is calm and happy.	6	
2. The student places one hand on the front of the cat's body to control the head and front limbs.	7	
3. The student places his/her other hand under the abdomen and rump to control the rear limbs.	6	
4. The student pulls the cat close to their body for support.	6	

TOTAL POINTS	25	
Total Points x 2 = Final Score	50	

Judge's Signature

Date