

Companion Animal Science CDE

Purpose

This career development event is designed to assess students' knowledge, application, analytical, and evaluation abilities in the area of small animal care, veterinary skills, and pet store management.

CDE Outline:

The CDE will follow the following guidelines

Section I	Written Test	250 points
Section II	Identification	250 points
Section III	Practicums	180 points

CDE breeds & species

- Dogs
- Cats
- Birds
- Fish
- Rabbits
- Other Animals

Description of student involvement:

- Four students per team will be allowed to compete in the CDE
- Each member of the team will complete the contest individually
- The top three scores on the team will constitute a team score
- Students will be allowed the following time limits for the contest
- Official Dress or appropriate FFA attire is required. Refer to Rule 1-A-5 on page 1.1.
- Tiebreakers: If team or individual scores are tied when scores are tabulated, ties will be broken in the following order: Total Identification score, then written exam score, then practicum score designated by officials, and finally total practicum score.

CDE Time limit

- Written Exam 50 minutes
- Breed Identification 50 minutes
- Practicums 50 minutes

CDE Details

- **Section 1 Written Test 250 Points**
 - 50 Multiple-choice questions (5 points each)
 - Listed below are topics and the percentage of the test allocated to each topic

Number (#)	Percentage (%)
12 Anatomy, Physiology & Veterinary Terminology	24
12 Nutrition and Feeding	24
2 Health Care; Prevention, Causes, Symptoms & Treatment	24
7 Reproduction, Breeding, Genetics, Breeds and Selection	14
7 Safety, Handling & Sanitation; Equipment/Facilities	14

- **Section 2: Identification 250 Points**
 - Identification of 50 breeds and species @ 5 pts each (Tables #1-#6)
 - Photos, paintings, or live specimens may be used as samples
 - The number of samples from each category will be:

Dog	20	Table 1:Dogs
Cats	8	Table 2: Cats
Fish	6	Table 3: Fish
Birds	4	Table 4: Birds
Rabbits	5	Table 5: Rabbits
Other Animals	7	Table 6: Other animals

- **Section 3 Practicums 180 Points**
 - There will be three practicums @ 60 points each.

Description of practicums

- Practicum #1: Anatomy – Contestants will identify parts and/or answer questions relating to the topics as listed in the chart below for the current year's event.
 - Refer to Table 7 for list of anatomy terminology
- Practicum #2: Vet Science Problem Solving - Contestants will solve problems relating to the topics as listed in the chart below for the current year's event.
 - Refer to Table 8 for list of possible topics
- Practicum #3: Small animal problem solving – Contestants will solve problems relating to the topics as listed in the chart below for the current year's event.
 - Refer to Table 9 for list of possible topics

Year	Practicum #1 Anatomy	Practicum #2 Vet Science problem solving	Practicum #3 Small animal problem solving
Odd years: 2025, 2027, 2029,2031	Digestive, circulatory, respiratory & external anatomy (Table 7A)	Parasite Identification, diagnosis, and treatment. (Table 8A)	Evaluations: procedures & practices Interpretation and selection scenarios (Table 9A)
Even years: 2026, 2028, 2030,2032	Skeletal, reproductive, and external anatomy (Table 7B)	Tools and equipment (identification, use questions) (Table 8B)	Math Application: Business/personal and patient (Table 9B)

Information

- Table 1: Dogs
- Table 2: Cats
- Table 3: Tropical Fish
- Table 4: Birds
- Table 5: Rabbits
- Table 6: Other animals
- Table 7: Practicum 1 (Anatomy)
 - 7A: Digestive, circulatory, respiratory and external anatomy
 - 7B: Skeletal, reproduction and external anatomy
- Table 8: Practicum 2 (Vet Science Problem Solving)
 - 8A: Parasites
 - 8B: Tools and equipment
- Table 9: Practicum 3 (Small Animal Problem Solving)
 - 9A: Evaluations: Procedures and Practices, Interpretation and Selection Scenarios
 - 9B: Math Applications, Business & Personal: Patient

References

- Small Animal Care and Management: Dean Warren - Cengage
- Introduction to Veterinary Science: Lawhead and Baker - Cengage
- An Illustrated Guide to Veterinary Medical Terminology: Janet Amundson Romich - Cengage
- Introduction to Livestock & Companion Animals: Lee, Hutter & Rudd – Pearson
- www.AKC.org
- www.CFA.org
- www.ARBA.net
- Past National FFA Veterinary Science CDE Materials (Exams)

Companion Animal Science

Identification Word Bank

5 Points each

Table 1 Dogs (40)					
101	Australian Shepherd	115	Doberman Pincher (& Mini)	129	Pug
102	Basset Hound	116	English Springer Spaniel	130	Rhodesian Ridgeback
103	Beagle	117	French Bulldog	131	Rottweiler
104	Bernese Mountain Dog	118	German Shepherd	132	Schnauzer (Mini)
105	Border Collie	119	German Shorthaired Pointer	133	Shetland Sheepdog
106	Boston Terrier	120	Golden Retriever	134	Shih Tzu
107	Boxer	121	Great Dane	135	Siberian Husky
108	Brittany Spaniel	122	Havanese	136	Vizsla
109	Bulldog	123	Labrador Retriever	137	Weimaraner
110	Cavalier King Charles Spaniel	124	Maltese	138	Welsh Corgi
111	Chihuahua	125	Mastiff	139	West Highland White Terrier
112	Cocker Spaniel	126	Newfoundland	140	Yorkshire Terrier
113	Collie	127	Pomeranian		
114	Dachshund	128	Poodle		
Table 2 Cats (20)					
201	Abyssinian	208	Maine Coon Cat	215	Russian Blue
202	American Shorthair	209	Manx	216	Scottish Fold
203	Birman	210	Norwegian Forest Cat	217	Siamese
204	British Shorthair	211	Oriental Shorthair	218	Siberian
205	Burmese	212	Persian	219	Sphynx
206	Egyptian Mau	213	Ragdoll	220	Tonkinese
207	Exotic	214	Rex (Cornish & Devon)		
Table 3 Tropical Fish (18)					
301	Angelfish	307	Chinese Algae Eater	313	Neon Tetra
302	Bala Shark	308	Comet Goldfish	314	Platy
303	Betta	309	Corydora Catfish	315	Plecostomus
304	Black Skirt Tetra	310	Guppy	316	Swordtail
305	Blue Gourami	311	Harlequin Rasbora	317	Zebra Cichlid
306	Cherry Barb	312	Molly	318	Zebra Danio
Table 4 Birds (10)					
401	African Gray Parrot	405	Cockatiel	408	Scarlet Macaw
402	Amazon Parrot	406	Greater Sulfur Cockatoo	409	Sun Conure
403	Budgerigar	407	Peach Faced Lovebird	410	Zebra Finch
404	Canary				
Table 5 Rabbits (12)					
501	Californian	505	Flemish Giant	509	Netherland Dwarf
502	Dwarf Hotot	506	Havana	510	New Zealand
503	Dutch	507	Jersey Wooly	511	Polish
504	English Lop	508	Mini Lop	512	Rex (Mini or Standard)
Table 6 Other Animals (20)					
601	Ball Python	608	Fire-bellied toad	615	Rat
602	Bearded Dragon	609	Ferret	616	Red Foot Tortoise
603	Blue-Tongued Skink	610	Gerbil	617	Red-Eared Slider
604	Chinchilla	611	Guinea pig	618	Russian Tortoise
605	Corn Snake	612	Hamster	619	Sugar Glider
606	Crested Gecko	613	Hedgehog	620	White's tree frog
607	Degus	614	Pac Man Frog		

Companion Animal Science Word Bank: Even-Numbered Convention Years (2026, 2028)

Practicum #1	Table 7B	Anatomy	60 Points	Bottom back side of scantron
MAMMAL SKELETAL				
151	Carpus	159	Lumbar Vertebrae	167 Sacral Vertebrae
152	Caudal Vertebrae	160	Mandible	168 Scapula
153	Cervical Vertebrae	161	Metacarpus	169 Sternum
154	Clavicle	162	Patella	170 Tarsus
155	Cranium	163	Pelvis	171 Thoracic Vertebrae
156	Femur	164	Phalanges	172 Tibia
157	Fibula	165	Radius	173 Ulna
158	Humerus	166	Rib	
AVIAN SKELETAL				
251	Carpal	259	Keel	266 Pygostyle
252	Cervical Vertebrae	260	Mandible	267 Radius
253	Coracoid	261	Maxilla	268 Ribs
254	Cranium	262	Metacarpal	269 Scapula
255	Femur	263	Orbit	270 Tarsometatarsal
256	Fibula	264	Pelvic Girdle	271 Tibia
257	Furcula	265	Phalanges	272 Ulna
258	Humerus			
MAMMAL REPRODUCTION				
351	Bulbourethral Gland	357	Penis	363 Testes
352	Cervix	358	Prepuce/Sheath	364 Uterine Body
353	Epididymis	359	Prostate Gland	365 Uterine Horn
354	Infundibulum	360	Retractor Muscle	366 Vagina
355	Ovary	361	Scrotal Sac	367 Vas Deferens
356	Oviduct	362	Seminal Vesicle	368 Vulva
AVIAN REPRODUCTION				
451	Cloaca	455	Ovary	458 Uterus
452	Infundibulum	456	Oviduct	459 Vagina
453	Isthmus	457	Testes	460 Vas Deferens
454	Magnum			
EXTERNAL ANATOMY				
551	Cephalic Vein	553	Jugular Vein	554 Saphenous Vein
552	Femoral Vein			

Practicum #2: Table 8B Problem Solving 4 Points each Bottom back side of scantron

TOOLS AND EQUIPMENT				
651	Ambu Bag	663	Comb - Scotch	674 Muzzle - nylon
652	Animal Clippers	664	Elizabethan Collar	675 Nail Clippers - guillotine
653	Brush - Pin	665	Endoscope	676 Nail Clippers - plier
654	Brush - Slicker	666	Endotracheal tubes	677 Ophthalmoscope
655	Carmalt Hemostat	667	Fecal Loop	678 Olsen-Hegar Needle Holder
656	Cat bag	668	Fecal Floatation Test	679 Otoscope
657	Catch pole (dog snare)	669	Feeding tube for small animals	680 Shedding blade
658	Centrifuge	670	Laparoscopes	681 Snook ovariohysterectomy hook
659	Chemical indicator strips	671	Laryngoscopes	682 Stethoscope
660	Clipper blades	672	Metzenbaum Dissecting Scissor	683 Syringe - luer lock
661	Clipper comb	673	Muzzle - basket	684 Syringe - slip tip
662	Comb - Flea			

Companion Animal Science Word Bank: Odd Number Convention Years (2025,2027,2029)**Practicum #1 Table 7A****Anatomy****60 Points****Bottom back side of scantron****MAMMAL DIGESTIVE**

101 Anus
 102 Bladder
 103 Cecum
 104 Colon
 105 Esophagus
 106 Gall Bladder

107 Kidney
 108 Liver
 109 Mouth
 110 Pancreas
 111 Rectum

112 Small intestine
 113 Spleen
 114 Stomach
 115 Ureter
 116 Urethra

AVIAN DIGESTIVE

201 Ceca
 202 Cloaca
 203 Crop
 204 Duodenum loop
 205 Esophagus

206 Gall bladder
 207 Large intestine
 208 Liver
 209 Mouth/beak
 210 Pancreas

211 Proventriculus
 212 Small intestine
 213 Vent
 214 Ventriculus

MAMMAL CIRCULATORY

301 Aortic arch
 302 Aortic valve
 303 Caudal vena cava
 304 Cranial vena cava
 305 Left atrium

306 Left ventricle
 307 Pulmonary artery
 308 Pulmonary valve
 309 Pulmonary veins

310 Right atrium
 311 Right ventricle
 312 Septum
 313 Ventricular wall

MAMMAL RESPIRATORY

401 Alveoli
 402 Bronchi
 403 Brinchioles
 404 Diaphragm
 405 Epiglottis
 406 Hard palate

407 Larynx
 408 Lungs
 409 Nasal cavity
 410 Nasal pharynx
 411 Nose
 412 Oral cavity

413 Pleural cavity
 414 Pleural membranes
 415 Ring of cartilage
 416 Soft palate
 417 Trachea

EXTERNAL ANATOMY

501 Brisket
 502 Crest
 503 Croup
 504 Dewclaw
 505 Dewlap
 506 Elbow

507 Flank
 508 Flew
 509 Hock
 510 Loin
 511 Muzzle

512 Occiput
 513 Pastern
 514 Shoulder
 515 Stifle
 516 Withers

Practicum #2 Table 8A**Problem Solving****4 points each****Bottom back side of scantron****PARASITES**

601 American dig tick
 602 Anchor worm
 603 Cat warble
 604 Deer tick
 605 Demodectic mote
 606 Earmite
 607 Flea tapeworm egg
 608 Fleas

609 Flukes
 610 Heartworm
 611 Hookworm
 612 Hookworm egg
 613 Giardia
 614 Lice
 615 Lungworm
 616 Mosquito

617 Pinworm
 618 Ringworm
 619 Roundworm
 620 Roundworm egg
 621 Sarcoptic mite
 622 Tapeworm
 623 Whipworm
 624 Whipworm egg

Companion Animal Practicum #3**Table 9A Companion Animal Problem Solving 60 Points Odd Years: 2025,2027,2028**

EVALUATION: PROCEDURES AND PRACTICES		
Anatomical direction	Injections (SQ, IM, IV)	Physical Exam
Aseptic	Orchlectomy	PPE (Personal Protective Equipment)
Biosecurity & Biohazards	Ovariohysterectomy	Rectal temp procedure
CRT (Capillary Refill Time)	OSHA principles	Sterilize
Disinfectant	Patient restraints	TPR (Temperature, Pulse, Respiration)

INTERPRETATION AND SELECTION SCENARIOS		
Animal Requirements	Equipment, supplies and housing	Needle gauge size
Breed Requirements	Labels (pet food, health products)	Physical exam data
Antibiotics	Manuals and diagrams	Schedules (drug, kennels, vaccines)
Clipper Blade Size	MSDS information	Vaccines
Drug delivery systems (injection type, oral, nebulized, etc)		

Table 9 B Companion Animal Problem Solving 60 points Even Years: 2026,2028,2030

BUSINESS & PERSONAL		
Discounts	Income/Sale	Margins & price-setting
Equipment purchases	Interest	Profit/Net Income
Expenses/Costs	Kennel problems	Supply orders
FICA		

Patient		
Aquarium weight	Dosages	Health Costs
Conversions	Equipment Costs	Medications
Dilutions	Feed Costs	Solutions

DOSAGES ABBREVIATION INFORMATION					
IM	Intramuscular	s.i.d.	Once Daily	o.s.	Left Eye
IV	Intravenous	b.i.d.	Twice Daily	o.d.	Right Eye
SQ	Subcutaneous	t.i.d.	Three Times Daily	a.s.	Left Ear
p.c.	After meals	q.i.d.	Four Times Daily	a.d.	Right Ear
a.c.	Before meals	q.d.	Every Day	a.u.	Both Ears
p.o.	Orally (by mouth)	q.o.d.	Every Other Day	o.u.	Both Eyes
p.r.	Rectally	ss	One Half	cap.	Capsule
top.	Topical	D.O.B	Date of Birth	gtt.	A drop
				tab.	Tablet

Example Questions:

Parasite Identification, diagnosis & treatment

Identification and/or questions from table 8A

1. Which of the following parasites is considered an endoparasite?
 - a. Fleas
 - b. Ticks
 - c. Hookworm
 - d. Mites
2. How many different types of tapeworm are known to infect dogs?
 - a. 1
 - b. 2
 - c. 3
 - d. 4
3. What external parasite transmits Lyme disease?
 - a. Fleas
 - b. Flies
 - c. Mosquitoes
 - d. Ticks
4. A whipworm egg under a microscope looks _____ in shape.
 - a. Circle
 - b. Oval
 - c. Cone
 - d. stringy

Tools and Equipment

Identification and/or questions from table 8B

1. Most surgical instruments are manufactured from _____.
 - a. Aluminum
 - b. Copper
 - c. stainless steel
 - d. Lead
2. A machine that spins samples very rapidly to separate elements based on weight is a _____.
 - a. Counter balance
 - b. Centrifuge
 - c. Fecalizer
 - d. Luer lock syringe
3. During a recent exam the vet examined your cats ears. What instrument was most likely used?
 - a. Endoscope
 - b. Laparoscope
 - c. Laryngoscope
 - d. Otoscope
4. A snook hook is typically used during a _____.
 - a. Castration
 - b. Hernia repair
 - c. Spaying
 - d. Declawing

Management Application*Questions from information topics from table 9A*

1. The capillary refill time (CRT) for a dog is 1 second. The dog would be considered _____.
 - a. Abnormally low
 - b. Normal
 - c. Abnormally high
 - d. Not an issue
2. Which of the following answers best completes the statement: Temperature pulse and respiration rates tend to _____ as the size of the animal _____.
 - a. increase, decrease
 - b. decrease, decrease
 - c. remain constant, increases
 - d. remain constant, decreases
3. You have been asked to clean the reception room. What best describes “cleaning”?
 - a. Destroying most microorganisms on non-living objects by physical or chemical means.
 - b. Destroying all microorganisms on non-living objects by heat or chemical means.
 - c. Destroying all microorganisms and viruses on living and non-living objects.
 - d. Physically removing all visible signs of organic matter, such as feces, hair, dirt, etc.
4. When working in a clinic or pet store, you understand the guidelines set forth by OSHA are based on the principle of _____.
 - a. Employee Right to Know
 - b. Employee Basic Knowledge
 - c. Employee Determination of Hazards
 - d. Employee Protection Act
5. The letters PPE in the work place refer to _____.
 - a. People Pets and the Environment
 - b. Personal Protective Equipment
 - c. Proper Protocol for Everyone
 - d. Personal Property Entitlement

Dosage Application*Questions from information topics from table 9B*

Indicate the number of tablets/capsules prescription for the following order:

1. Rx Metronidazole tablets, 250 mg, 1 tablet, p.o., b.i.d. x 10 days
 - a. 10
 - b. 20
 - c. 30
 - d. 40
2. You are advised to give your Golden Retriever 500 mg of amoxicillin s.i.d. and the vet gives you 250 mg tablets. How many tablets will you administer in one day?
 - a. 1
 - b. 2
 - c. 4
 - d. 6

3. 1000 mg of a solution is equal to _____ g.
 - a. 1
 - b. 10
 - c. 100
 - d. 10,000
4. A customer asks how much they should feed their 5 pound Chihuahua. The new dog food label says to feed 1 cup of dog food for every 4 kilograms of weight. Approximately how much should they feed?
 - a. $\frac{1}{2}$ cup
 - b. $\frac{3}{4}$ cup
 - c. 1 cup
 - d. 2 cups
5. You take the pulse rate of a cat and get 10 beats in 5 seconds. What is the heart rate in bpm?
 - a. 50
 - b. 120
 - c. 240
 - d. 300
6. As a grooming assistant you are making \$9.00 an hour. You receive a raise of 15%. How much are you now making per hour?
 - a. \$9.15
 - b. \$9.95
 - c. \$10.15
 - d. \$10.35
7. Your store is having a sale on cat food. Buy one and get 50% off the second. Sales tax is 5%. What would the total bill be for 4 cans of Pretty Kitty if one can costs \$0.70.
 - a. \$2.10
 - b. \$2.21
 - c. \$2.80
 - d. \$2.94
8. The goal of your pet supply business is for a 40% profit margin. What would you have to sell a bottle of shampoo for if your cost is \$2.60.
 - a. \$2.64
 - b. \$3.00
 - c. \$3.64
 - d. \$4.00