

Texas 4-H Veterinary Science Skillathon

2012 Invitational Contest Rules & Guidelines

Thursday, June 14, 2012

Please note. 2012 Texas 4-H Roundup will be held in **Lubbock!**

OVERVIEW

The Veterinary Science Skillathon is a competitive event designed to test the knowledge and skills that a 4-H member can gain through his or her involvement in a Veterinary Science project. There are several components to the contest. The Written Exam is to test the participant's subject matter knowledge. The Skills Exam tests the hands-on or experiential learning and is the largest component of the contest. The Quiz Round requires participants to think on their feet, as well as analyze risks as far as losing points for incorrect answers, and this part is generally the most fun for the participants. Finally, the Communication portion of the contest helps to develop public speaking skills.

OBJECTIVES OF THE 4-H VETERINARY SCIENCE PROJECT

1. Utilize career-oriented resource material and supplements that provide lessons, questions, and activities.
2. Develop the interest, knowledge, skills, and experiences of youth in veterinary science for a career in veterinary medicine (veterinary assistant, veterinary technician or veterinarian), human medicine (paraprofessional or physician), or allied health fields (diagnostics, therapeutics).
3. Prepare youth to be job-trained following high school, prepare youth to pursue an associate degree college program, and prepare youth to pursue a professional degree college program.

ELIGIBILITY AND GUIDELINES

1. Application Date. Must submit completed application with original signatures **postmarked by Friday, March 16, 2012** to Laura Huebinger by US mail to the following address:

4-H Veterinary Science Skillathon
Laura Huebinger
Extension Program Specialist
4-H & Youth Development
Texas AgriLife Extension Service
1229 N US Hwy 281
Stephenville, TX 76401

Applicants will be notified of the acceptance into the contest by Monday, April 2, 2012.

2. Project enrollment. Participants must be current Texas 4-H members currently enrolled in the 4-H veterinary science project. Participants must also have completed at least one full calendar year in a structured veterinary science program using curriculum.
3. Age. Participants must be Intermediate or Senior aged 4-H members as of August 31, 2011.

<u>Division</u>	<u>Ages</u>	<u>Birth date between:</u>
Intermediate	11-13 years of age	Sept 1, 1997 – Aug 31, 2000
Senior	14 - 18 years of age	Sept 1, 1992 – Aug 31, 1997



4. *Skillathon levels.* The contest will be divided into two (2) experience levels. Participants that have completed 20-60 lessons from the *Veterinary Assistant Handbook* or *Veterinary Science: Preparatory Training for the Veterinary Assistant* will be placed in Level 1. It is recommended that Level 1 participants have completed a minimum of 300 observation hours and 100 clinical skills hours working in a volunteer or paid position with a veterinarian. Participants that have completed more than 60 lessons from the *Veterinary Assistant Handbook* or *Veterinary Science: Preparatory Training for the Veterinary Assistant* will be placed in Level 2. It is recommended that Level 2 participants have completed a minimum of 900 observation hours and 300 clinical skills hours working in a volunteer or paid position with a veterinarian. *Please note that these levels are based on veterinary science project experience, not age, grade, or years in 4-H.*

Refer to the attached *Texas 4-H Veterinary Science Lesson Plan Model* and the attached *Texas 4-H Veterinary Science Clinical Skills Model* to see which lesson topics and skills will be covered in each Level of the contest. Level 1 of the skillathon will cover information listed in Lessons 1-60 and Clinical Skills Categories 1-12. Level 2 of the skillathon will cover information listed in Lessons 1-100 and Clinical Skills Categories 1-20. Further explanation of the clinical skills categories can be found on the Texas Veterinary Medical Association’s *Veterinary Assistant Skills Validation Checklist* at <http://aevm.tamu.edu/files/2010/06/Veterinary-Assistant-Skills-Validation-Checklist.pdf>. The *TVMA Checklist* will be used as a guide when selecting skills for the skillathon.

5. *Maximum number of participants.* The contest will be limited to the top twenty (20) applicants in each Level, for a total maximum of forty (40) participants. There is no limit to the number of applications that a county may submit.
6. *Contest participation.* This will be an *individual* contest.
7. *Agent certification.* Applications must be signed by the County Extension Agent to certify current membership, age, and project experience.

CONTEST COMPONENTS

There will be four (4) components or “rounds” to the contest. Each component will be weighted in the following manner for scoring purposes:

Written Exam	200 points	(20%)
Quiz Bowl	150 points	(15%)
Skills Exam	500 points	(50%)
Communication	150 points	(15%)
Total	1000 points	(100%)

All participants will compete and earn points in the first three (3) rounds of Written Exam, Quiz Bowl, and Skills Exam, for a maximum of 850 points. The top three (3) participants earning the most points in the first three (3) rounds will then advance to the Communication round. Total scores to establish final ranking will be determined by adding points earned in all four (4) contest components, for a maximum of 1000 points.

Written Exam

Questions will be written regarding information selected from the *Veterinary Assistant Handbook* or *Veterinary Science: Preparatory Training for the Veterinary Assistant*. Questions will be derived from the lessons in either reference book, as well as, from the knowledge that can be obtained by participating in activities of the veterinary science project. Questions may be multiple choice, true/false, matching, identification, or short answer. There will be 100 questions, each worth two (2) points, for a total of 200 points.

Quiz Bowl

Questions will be similar in type to those in the written test. The Quiz Bowl will be a different format than the traditional Quiz Bowl contests, in that participants will accumulate points *individually*. Multiple heats will be conducted. Participants will earn three (3) points for each correct answer and lose three (3) points for each incorrect answer. There will be a total of 50 questions, for a maximum of 150 points in the Quiz Bowl round. Note that participants will lose points for incorrect answers; therefore it is possible to have a negative score in the Quiz Bowl round. Spectators may watch the Quiz Bowl as participants compete, but may not speak, signal, or otherwise communicate with participants.

Rules of play:

- Scores will be kept individually.
- The moderator reads each question until he/she finishes asking the question or until a participant activates a buzzer.
- If the allowed time elapses (10 seconds) and no participant activates a buzzer, no participant gains or loses points and the next question will be asked.
- A participant must buzz in and be acknowledged by the moderator. The moderator will announce before play the method of acknowledgement. **If a participant answers a question without being acknowledged, he/she loses three (3) points.**
- If a buzzer is activated while a question is being read, the moderator immediately stops reading the question and the participant activating the buzzer has 10 seconds after being acknowledged to begin to answer a question.
- If a participant repeats the question, it is not considered the initiation of an answer. It is the moderator and/or timer's responsibility to determine if the actual answer has been started within the 10-second period. This ruling cannot be protested.
- If the answer to any question, whether read to completion or not, is incorrect, the question is not repeated for the opposing participants and is discarded. It is optional to read the correct answer.
- If a participant begins to answer a question during the 10-second period and the answer is incorrect, that participant loses three (3) points.
- If a participant correctly answers a question within the 10-second period, the participant gains three (3) points.
- No coaches will be allowed with participants.

Skills Exam

The Skills Exam will be the hands-on component of the contest. Participants will perform the skills individually. The ability to perform these skills will come from working in a volunteer or paid position with a veterinarian.

Refer to the attached *Texas 4-H Veterinary Science Clinical Skills Model* to see which skills will be covered in each Level of the contest. Further explanation of these clinical skills categories can be found on the Texas Veterinary Medical Association's *Veterinary Assistant Skills Validation Checklist*. The *TVMA Checklist* will be used as a guide when selecting skills for the skillathon. The *TVMA Checklist* can be found at the following link:

<http://aevm.tamu.edu/files/2010/06/Veterinary-Assistant-Skills-Validation-Checklist.pdf>

At each skills station, instructions and time constraints will be provided. The skills will be judged using a rubric for thoroughness, safety, and overall completion of the skill in the allotted time. The Skills Exam will be worth 500 points total. Each skill may be weighted with different point values depending upon the complexity of the skill.

Communication

Three (3) participants earning the highest total points from the first three (3) contest components (Written Exam, Quiz Bowl, and Skills Exam) will individually present a 3-5 minute informative speech related to the specified topic without using any outside materials. Each year, a list of five (5) possible topics will be identified so that preparation may begin prior to the contest. From these five (5) topics, one will be selected by contest officials as the Communication round topic for the contest. Participants will receive the selected speech topic the day of the contest and will have no less than 15 minutes to prepare. Judges may ask questions. Spectators and eliminated participants may watch the Communication round, but may not speak, signal, or otherwise communicate with participants. Spectators and eliminated participants may not ask questions. The Communication round will be worth 150 points.

For the 2012 Invitational 4-H Veterinary Science Skillathon, the possible topics are as follows:

Level 1

- Rabies Control Program
- Preparing Livestock for Shipment
- Physical Examinations
- First Aid
- Handling and Administering Medications

Level 2

- Radiology
- Applying Bandages
- Fecal, Blood, and Urine Examinations
- Prevention
- Sterile Gloves and Gowns

CONTEST SCHEDULE

Please note: This schedule may be modified slightly once applications are received.

8:30-8:45am	Volunteer Arrival & Check-in	Room 1
8:45-9:00am	Volunteer Orientation	Room 1
9:00-9:10am	Participant Arrival & Check-in	Room 1
9:10-9:30am	Participant Orientation	Room 1
Level 1		
9:30-10:30am	Skills	Room 3, Room 4, Room 5
10:30-10:50am	Quiz	Room 1
10:50-11:30am	Written	Room 2
Level 2		
9:30-9:50am	Quiz	Room 1
9:50-10:30am	Written	Room 2
10:30-11:30am	Skills	Room 3, Room 4, Room 5
11:30	Break for Lunch	Room 1
	Tabulation	Room 4
12:00pm	Announcement of Final Round Contestants	Room 1
12:05pm	Final Round Contestants to Holding Room to draw for order	Room 2
12:15pm	First Communication Round Contestant Enters Prep Room	Room 5
12:30-2:00pm	Final Communication Round	Room 1
2:00-2:30pm	Final Tabulation	Room 4
2:30pm	Awards Presentation	Room 4

CONTEST RESOURCES

- *Veterinary Assistant Handbook*
Author: Floron C. Faries, Jr.
<http://store.im.tamu.edu/4041-Veterinary-Assistant-Handbook-P606.aspx>
- *Veterinary Science: Preparatory Training for the Veterinary Assistant*
Author: Floron C. Faries, Jr.
<http://aevm.tamu.edu/4-h-veterinary-science/handbook-information/>
- *Texas 4-H Veterinary Science Lesson Plan Model*. The *Lesson Plan Model* indicates which lesson topics will be covered in each level of the skillathon. Level 1 of the skillathon will cover information listed in lessons 1-60. Level 2 of the skillathon will cover information listed in Lessons 1-100.
http://aevm.tamu.edu/files/2011/09/VSLesson_Model2.pdf

- *Texas 4-H Veterinary Science Clinical Skills Model*. The *Clinical Skills Model* indicates which skills will be covered in each level of the skillathon. Level 1 of the skillathon will cover information listed in Clinical Skills Categories 1-12. Level 2 of the skillathon will cover information listed in Clinical Skills Categories 1-20.
- *Texas Veterinary Medical Association's Veterinary Assistant Skills Validation Checklist*. The *TVMA Checklist* provides further explanation of the twenty (20) clinical skills categories listed in the *Texas 4-H Veterinary Science Clinical Skills Model*. The *TVMA Checklist* will be used as a guide when selecting skills for the skillathon.
<http://aevm.tamu.edu/files/2010/06/Veterinary-Assistant-Skills-Validation-Checklist.pdf>

HELP NEEDED CONDUCTING THE CONTEST

County Extension Agents and screened volunteers will be needed on the day of the contest to help. Assistance will be needed for many different parts of the contest including check-in, group leaders, score keepers, tabulation, etc. If interested, contact one of the Contest Superintendents.

CONTEST SUPERINTENDENTS

If you have any questions, please contact one of the following:

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 Extension Program Specialist
 4-H & Youth Development
 Texas AgriLife Extension Service
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 254-968-4144
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Texas 4-H Veterinary Science Lesson Plan Model

This is a suggested model for teaching 4-H members in the 4-H Veterinary Science project. This list can be modified to fit the needs of each county.

Texas 4-H Veterinary Science Skillathon. Level 1 of the skillathon will cover information listed in Lessons 1-60. Level 2 of the skillathon will cover information listed in Lessons 1-100.

Lesson	Subject
1	The Profession of Veterinary Medicine
2	The Veterinary Assistant
3	Animals and Society
4	Office Procedures
5	Client Communications
6	¹ Employee Communications
7	¹ Clinic Infectious Disease Control
8	Storage of Foods
9	Caring for Patients
10	¹ Pain Recognition
11	Environmental Sanitation
12	Bedding and Housing of Patients
13	Anatomy and Physiology of Animals
14	Integrated Resource Management
15	¹ Record Keeping
16	Marketing Animals
17	Preparing Livestock for Shipment
18	Interstate and International Movement of Animals
19	Brucellosis and Tuberculosis Eradication Programs
20	Rabies Control Program
21	Reading Animal Behavior
22	Vital Signs
23	Genetics
24	Determining the Age of Animals
25	Breeds of Dogs and Cats
26	Breeds of Livestock
27	Essential Food Nutrients
28	Nutrition and Management of Dogs, Cats, and Exotic Pets
29	Nutrition and Management of Livestock
30	Introduction to Handling and Restraining Animals
31	Common Knots
32	Handling and Restraining Dogs and Cats
33	Handling and Restraining Livestock
34	Handling and Restraining Rodents, Rabbits, and Exotic Animals
35	Dehorning, Castrating, and Docking



36	Collecting and Handling Semen
37	Artificial Insemination
38	Reproduction and Transrectal Palpation in Cattle
39	Weaning Calves
40	Assistance at Birth
41	Physical Examinations
42	First Aid
43	Applying Bandages
44	Handling and Administering Medications
45	¹ Rehabilitation
46	Bacteriologic Tests
47	Fecal, Blood, and Urine Examinations
48	Special Examinations
49	Radiology
50	Post-mortem Examinations
51	Genetics and Disease
52	The Battle Against Disease
53	Food and Animal Diseases
54	Economic Losses
55	Anthrax Control Program
56	Pseudorabies Control Program
57	¹ Pullorum-Typhoid, Avian Influenza, and Exotic Newcastle Disease Control Programs
58	¹ Bovine Trichomoniasis Control Program
59	¹ Vesicular Stomatitis Control Program
60	¹ West Nile Encephalitis Control Program
61	Diseases Common to Humans and Animals
62	Animal Assisted Therapy
63	² Causes of Infectious Diseases
64	² Infectious Diseases: Digestive System
65	² Infectious Diseases: Respiratory and Reproductive Systems
66	² Infectious Diseases: Integumentary System
67	² Infectious Diseases: Cardiovascular and Lymphatic Systems
68	² Infectious Diseases: Musculoskeletal System and Nervous Systems
69	² Infectious Diseases: Special Senses
70	Nutritional Diseases
71	Reproductive Non-Infectious Diseases
72	Chemical Poisoning
73	Toxicity of Insecticides
74	Poisonous Plants
75	Miscellaneous Non-Infectious Diseases
76	Producing Safe Food
77	Drug Residue Avoidance Program
78	¹ Carcass Disposal Regulations
79	Medical Waste Disposal

80	Animal Welfare Regulations
81	Prevention
82	Treatment
83	Controlling Internal Parasites
84	Controlling External Parasites
85	Veterinary Biological Products
86	Disinfectants
87	Dietary Management of Small Animals
88	Quarantines and Eradication Programs
89	Sterilization
90	Sterilizing Techniques
91	Surgical Instruments and Technology
92	Surgical Preparation and Procedures
93	Anesthesia
94	Preparing Hands and Field Operation
95	Sterile Gloves and Gowns
96	Pesticide Regulations
97	Laws Related to Veterinary Medicine
98	¹ Natural, Accidental, and Intentional Outbreaks of Disease
99	¹ Emergency Animal Management During Disasters
100	¹ Clinic Emergency Management Plans

¹For the 2012 Texas 4-H Veterinary Science Skillathon, participants will not be responsible for information covered in these lessons.

²In the *Veterinary Assistant Handbook*, these lessons are grouped and titled by germ (i.e. Bacterial, Viral, Fungal, Parasitic, and Rickettsial). In the *Veterinary Science: Preparatory Training for the Veterinary Assistant* these are grouped and titled by body systems. For the 2012 Texas 4-H Veterinary Science Skillathon, Level 2 participants will need to be familiar with this information.

Texas 4-H Veterinary Science Clinical Skills Model

This is a suggested model for teaching clinical skills to 4-H members in the 4-H Veterinary Science project that should complement the Lesson Plan Model. This list can be modified to fit the needs of each county.

This document lists twenty (20) categories of clinical skills. The Texas Veterinary Medical Association’s Veterinary Assistant Skills Validation Checklist provides further explanation of these twenty (20) clinical skills categories.

Texas 4-H Veterinary Science Skillathon. Level 1 of the skillathon will cover information listed in Clinical Skills Categories 1-12. Level 2 of the skillathon will cover information listed in Clinical Skills Categories 1-20.

Category	Clinical Skill
1	Monitoring drug inventory
2	Cleaning and exercising animals
3	Feeding and watering animals
4	Cleaning animal housing
5	Communicating with clients on admitting animals – Taking reasons, history
6	Recording medical records – History – Examination – Vital Signs
7	Handling instruments
8	Handling equipment
9	Handling animals – Calming, moving – Weighing – Restraining
10	Examining animals – Temperaturing
11	Monitoring behavior of animals
12	Performing sanitary procedures
13	Collecting lab samples – Feces, blood, urine, skin
14	Taking radiographs
15	Medicating animals
16	Bandaging animals
17	Preparing surgical packs
18	Assisting in surgery
19	Recording medical records – Treatment
20	Communicating with clients on dismissing animals – Instructions, educational materials



Veterinary Assistant Skills Validation Checklist

In order to qualify to sit for the Veterinary Assistant Certification exam through the Texas Veterinary Medical Association, the applicant must demonstrate reasonable proficiency or competency in the following areas and have these skills certified by a licensed veterinarian.

- Use common terminology (spoken and written) required in your veterinary practice.
- Keeps assigned work areas clean and orderly.
- Demonstrates a basic knowledge of sanitary procedure.
- Handles animals in a safe humane manner.
- Can name and select the equipment items most commonly used in your veterinary practice.
- Demonstrates a basic understanding of the most commonly used veterinary drugs.
- Recognizes the symptoms commonly associated with animal affected by rabies.
- Demonstrates appropriate understanding and respect for the human-animal bond and dealing with clients and their animals.
- Handles and disposes of “sharps” instruments safely and in compliance with practice standards.
- Uses the proper procedure for lifting and positioning animals.
- Uses the proper procedure for placing animals in a cage.
- Uses the proper procedure for placing large animals in a stall.
- Uses (or can describe) the proper method of haltering a large animal.
- Practices (or can describe) the proper personal safety precautions when releasing a large animal.
- Properly restrains animals when assisting the veterinarian with cephalic and saphenous venous sampling.
- Properly muzzles fractious animals.
- Handles and holds animals so as to generally avoid bites to themselves and to attending veterinarian.
- Demonstrates (or describes) the proper method of moving cattle and horses through chutes and into or out of stalls.
- Recognizes and avoids potential safety hazards in the examination room or area.
- Handles animals in the examination room or area so as to prevent harm to patients and humans.
- Carefully observes patients and surroundings and reports observations to the attending veterinarian.
- Handles and uses disposable “sharps” containers in a safe manner.
- Follows OSHA guidelines in collecting and disposing of bio-hazardous materials.

- Demonstrates or explains the proper method of collecting fecal samples (including the palpation sleeve) in the large animal.
- Uses correct quantities of feces for fecal flotations.
- Recognizes fresh fecal samples.
- Can explain client options for disposition of euthanized or deceased animals.
- Discuss individual or communal cremation options with owners of deceased pets.
- Properly prepares the deceased animal for presentation to the owner.
- Exhibits proper decorum when presenting a deceased animal to its owner.
- Correctly collect urine through natural means.
- Knows proper method for collecting urine samples that are adequate for culturing microorganisms.
- Collects urine samples during the correct time of day.
- Correctly uses shielded gowns, gloves and other protective wear when taking radiographs.
- Handles uses and stores radiographic cassettes and film properly.
- Bathes and dips patients as instructed.
- Avoids basic hazards and species susceptibilities to certain bath and dip products when preparing and giving dips and baths.
- Follows accepted procedures when bathing or dipping patients.
- Safely cares for animals in runs, cages, stalls and paddocks.
- Uses the bedding types indicated for specific breeds/species of housed animals.
- Changes bedding materials in a timely and efficient manner.
- Disposes of used bedding materials as needed and in a proper manner.
- Recognizes and avoids safety hazards in the areas where patients are housed.
- Uses proper sanitary procedures in changing bedding materials.
- Maintains and repairs cages, kennels, and stalls as needed.
- Properly uses (or describes the proper use of) common devices and equipment to restrain horses, cattle, goats and swine for treatment.
- Recognizes common breeds and varieties of exotic animals that visit the clinic and calls them by the correct common name.
- Safely handles and restrains exotic animals for examination and treatment.
- Autoclaves veterinary instruments using moist pressure autoclave and chemical sterilization.
- Follows a proscribed procedure for cleaning all stainless steel instruments.
- Follows correct procedure for ultrasonic cleaning of instruments.
- Lubricates instruments properly during the cleaning process.
- Maintains all dental equipment in clean usable condition for performing prophylaxis treatments.

- Determines that all active scavengers are working properly in evacuating anesthesia gases as needed.
- Ensures that all sharp and cutting blades are removed and disposed of properly following surgical procedures.
- Describes (or demonstrates) the proper method for administration of a paste or topical drug on an equine patient.
- Describes (or demonstrates) the proper method for administration of a bolus, paste or topical drug on a bovine patient.
- Describes (or demonstrates) the proper method for administration of tablets, capsules, liquid and topical drugs for canine and feline patients.
- Stores animal feeds according to instructions.
- Measures food quantities accurately.
- Reads and follows food label directions correctly.
- Reads and correctly follows written instructions for animal feeding.
- Reports animal food and water consumption rates correctly and on schedule.
- Administers hydrotherapy according to directions.
- Selects the correct syringes on demand from the veterinarian.
- Correctly fills syringes with medication as directed.
- Recognizes intravascular, intramuscular, subcutaneous, and intraperitoneal applications.
- Selects correctly the needle gauge and length requested by the veterinarian.
- Properly disposes of syringes, needles and other sharp objects commonly used in the veterinary clinic.
- Properly identifies and disposes of expired substances.
- Obtains information relative to animal being boarded and/or discharged.
- Discusses and explains the charges for boarding costs.
- Posts and records money collected to the appropriate records as directed.
- Interacts cheerfully with clients and handles complaints with a smile.