4-H
Veterinary Science Proficiency Program
A Member's Guide

OVERVIEW

The 4-H Veterinary Science Proficiency program helps you learn what you need to know about your 4-H project. Your project leader will assist you in setting and achieving your goals. Through your project, you will learn animal care basics, good management practices and record keeping. You will also learn about the size and scope of the animal industry as it relates to your project.

There are many resources to help you learn more about your project:

- The University of California Davis has free resources available online by visiting: http://anrcatalog.ucdavis.edu/4HYouthDevelopment/. This site lists a variety of project materials and resources recommended for use in your project.
- The Shasta County 4 - H esources and Lending Library at our county 4-H Office includes other books, videos, and reference materials that can be checked out by members and leaders.
- Check to see if there is a breeder's organization in your community that conducts educational activities and shows. Local breeders are excellent sources of help and information.

There are five levels in the Project Proficiency Program. You may choose how many levels you wish to complete:

- Level I – "Explorer", you begin to learn about many different aspects of caring for animals.
- Level II – "Producer", you practice and refine the many skills involved in learning about and raising animals.
- Level III – "Consumer", you become an experienced animal raiser.
- Level IV – "Leader", allows you to show your own leadership potential.
- Level V – "Researcher", you carry out a demonstration or experiment on some aspect of Veterinary Science, and prepare a paper or portfolio.

As you work through the proficiency program, your leader will date each skill item as you complete it. When all items in a proficiency level are completed, your leader will sign the Certificate of Achievement.

VETERINARY SCIENCE
Level I - Explorer

Date Completed

1. Describe five behaviors that might be used to diagnose the presence of disease in an animal.
2. What is the normal body temperature of the following animals:
   - Cattle
   - Swine
   - Cat
   - Dog
   - Horse
   - Fowl
   - Goat
   - Sheep
3. Explain what a pulse is. Where do you take the pulse on cattle and horses?
4. Define respiration and be able to give the respiration rate of two large animals and two small animals
5. Name three factors which should be considered when choosing, locating and constructing housing for your animal.
6. Name three instances in which cleanliness and disinfection are important and tell why.
7. What are the three main parts of a cell and what is the important job each one does?
8. Name the four basic tissues of the animal and give each of their functions.
9. Define the term “organ system” and give five examples.
10. Explain the main difference between ruminant and monogastric animals.
11. What is a parasite? Identify the two main types of parasites and give two examples of each of three different species.
12. Describe the steps that are taken to test a fecal sample of an animal for internal parasites.
13. What is equine colic? What are some of its signs?
14. Define necropsy. Why does a veterinarian perform necropsy?
15. Define dystocia. Give three examples of dystocia.
16. Give an example of a situation in which a veterinarian might use an x-ray machine.

Member Name: _____ Date: _____

Project Leader’s Signature: _____ Date: _____

VETERINARY SCIENCE
Level II - Producer

Date Completed

_____ 1. Attend a seminar given by a veterinarian in your area.

_____ 2. Give a demonstration at County Presentation Day sharing your knowledge in veterinary science.

_____ 3. Take part and assist in a rabies vaccination clinic. (Many communities hold such clinics once or twice a year.)

_____ 4. Participate in the preparation and maintenance of facilities for an animal that you own or care for during production, breeding or birthing.

_____ 5. Plan and follow through on a parasite control program for an animal that you own.

_____ 6. Describe or demonstrate how to sanitize your animal's equipment.

_____ 7. Attend a field day event where some aspect of animal health is discussed.

_____ 8. Describe control measures for at least three diseases or problem conditions for the animal of your choosing.

_____ 9. Put together a display, poster, etc., to enter in your local county fair.

_____ 10. Define the following terms:

- Gait
- Abnormal
- Attitude
- Pigment
- Mucous membrane
- Immunity

_____ 11. Describe the different forms of immunity and explain how each is developed.

_____ 12. Describe the characteristics of a virus, and how to control a virus.

_____ 13. Pick an external parasite. Explain what insecticide you would use to eradicate it and in what form you would use it. Give the advantages and disadvantages of using this particular insecticide.

_____ 14. Choose a nutritional disease. Explain what causes it, symptoms and treatments.

Member Name: _____ Date: _____

Project Leader's Signature: _____ Date: _____

VETERINARY SCIENCE
Level III - Consumer

Date Completed		
_____	1.	Invite a guest speaker to one of your meetings and introduce them to the group.
_____	2.	Explain antifreeze poisoning with symptoms, treatment , and control.
_____	3.	What are organophosphates? What biological affects do organophosphates have?
_____	4.	How do poisonous plants constitute a hazard to grazing animals?
_____	5.	Give the two reasons for salt poisoning. How can this problem be eliminated?
_____	6.	Choose an example of a chemical, plant or insecticide poison and discuss the effects it would have on your project animal. Find out the symptom, treatment, long range effects of the poisoning, and preventative measures.
_____	7.	Explain how genetics can be important when purchasing breeding stock to raise puppies or livestock for future sale.
_____	8.	Explain whether the mother or father determines the sex of its offspring and why?
_____	9.	Find out the meaning of the word *mutant.* Explain how mutations contribute to the variety of living things. Give one example of a good mutation.
_____	10.	Keep a personal reference library of literature that will be helpful in your project.
_____	11.	Demonstrate at least three methods of administering medications.

Member Name: _____ Date: _____

Project Leader's Signature: _____ Date: _____

VETERINARY SCIENCE
Level IV - Leader

Date Completed

_____ 1. Serve as Junior or Teen leader in this project for one year.

_____ 2. Assist younger members in designing and constructing needed equipment for an animal of their choosing.

_____ 3. Prepare teaching materials for use at project meetings.

_____ 4. Develop and put on a demonstration about some aspect of veterinary science or assist a junior member in their demonstration.

_____ 5. Speak on a veterinary science subject before your 4-H club.

_____ 6. Teach younger members about learning a specific topic in the project.

_____ 7. Develop your own special project related activity. Chart your progress, plan the activities, analyze successes and problems, and report on your accomplishment to your club.

_____ 8. Interview a local veterinarian on one of the following subjects:

- Fertility
- General health
- Euthanasia
- Worming
- Viruses
- Post-breeding care
- Vaccination schedules
- Other

Member Name: _____ Date: _____

Project Leader's Signature: _____ Date: _____

ANIMAL SCIENCE
Level V - Researcher

Date Completed

Project: _____

_____ 1. Report on the results of a demonstration comparing measurable differences in management procedure. (Experiment)

_____ 2. Prepare a paper of 300 words or more on one of the following topics:

- Management of animal.
- Feeds, feeding, and nutrition.
- Diseases, prevention and control, and general sanitation.
- Reproduction, breeding and genetics.
- Keeping and using records as a basis for improving your animal project.
- Other

_____ 3. Prepare a speech or illustrated talk to orally summarize your findings and present at a club, project meeting or other educational event.

Member Name: _____ Date: _____

Project Leader's Signature: _____ Date: _____

Certificate of Achievement

This certifies that

_____

has completed the Veterinary Science Proficiency

in Shasta County.

Explorer	*Producer*	*Consumer*	*Leader*	*Researcher*
_____ *Date*	_____ *Date*	_____ *Date*	_____ *Date*	_____ *Date*
_____ *Initials*	_____ *Initials*	_____ *Initials*	_____ *Initials*	_____ *Initials*

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