



## Animal Science Notebook Guidelines

### Purpose:

Animal Science Notebook Exhibit at the Berrien County Youth Fair allows youth exhibitors to collect information about the life cycle, management, and showing of the animal species which they are exhibiting at the Fair, or which are exhibited by others. This permits the youth to have a more complete understanding about that species.

### Notebook Requirements:

1. Notebooks are to be presented in a 3-ring binder with a clear plastic over-wrap or sleeve on the front into which the Cover page of the Notebook is inserted.
2. The pages in the Notebook are to be put into clear page protectors. This keeps the pages clean, neat, and not torn during the handling they get during Fair week when visitors read them.
3. An exhibitor may complete a Notebook about each species in which he/she is interested. If an exhibitor is not showing a particular species at the Fair during the current year, he/she must interview another exhibitor who is in order to be able to fully complete the Notebook especially the Animal Project Record.
4. Eligible species for Notebooks are beef, dairy, swine, sheep, goats, equine, rabbits, poultry, llamas, dogs, cats, and pocket pets.
5. Exhibitors are to complete the Notebook themselves. Adult help must be minimal. Exhibitors should answer the questions in their own words as much as possible, not just copy the answer from the reference source material. Answers should be in complete sentence form.
6. Answers must be written in dark ink, not pencil. Pencil may only be used to label a diagram. If exhibitors use a computer or typewriter to prepare the Notebook, then there must be a note from their parents, 4-H leader, or animal project leader stating that the Notebook is indeed the exhibitor's own work.
7. There should be one question (re-stated from the Guidelines) with its number and answer with its reference source cited per page. All pages are to be numbered.

*The Berrien County Youth Fair animal science guidelines have been adopted with minor changes, from the Berrien County 4-H animal science guidelines with their approval.*

*May 2007*

8. If two or more members of the same family wish to enter Notebooks about the same animal species in the same year, each member must answer different questions about the species to avoid the appearance of duplication of answers.
9. New questions must be answered each year an exhibitor enters a Notebook. Keep track of which questions were answered by writing the year it was answered on the blank in front of it on the questions pages.
10. The required number of questions to be answered depends on the exhibitor's age as per the Fair's guidelines.

<u>Age</u>	<u>Number of questions</u>
8 years or younger	3
9-11 years	5
12-14 years	7
15 or older	9

Notebook Order and Content Definitions:

1. Cover Page – This should state the species discussed in the Notebook and the exhibitor's name and Fair number. The Cover can be colorful and creative. It is to be inserted into the clear plastic front cover of the 3-ring binder.
2. Notebook Spine – The clear cover over the spine of the Notebook should contain a strip of paper with the species covered in the Notebook and the exhibitor's name.
3. Inside Notebook –
  - a. Title page – This should include the same information as the Cover page but it can be decorated differently.
  - b. Guidelines – All the pages of these Guidelines are to follow the Title page. The year each question is answered is to be written on the line before each question.
  - c. Divider – A divider comes next with the year of the current report written on the tab. Put the current year's material in front of the previous year's material.
  - d. Table of Contents – The Table of Contents should list what is in the current year's Notebook such as the page numbers and what is written on each page.
  - e. Animal Project Report – The form for this Report is included with these Guidelines and should follow the Table of Contents in the Notebook. It is to be filled out completely. This includes the costs incurred by the exhibitor to acquire and/or raise animal as well as photos documenting the progress of raising and preparing it for the Fair. It must be written in ink. (See Notebook Requirement #3 above.)
  - f. Questions and Answers – Next are the Questions selected by the exhibitor to answer. The reference source is to be listed after each answer. (See Notebook Requirements #5, 6, 7 above.)

- g. References – The final page lists the sources from which the exhibitor got his/her answers. Sources can be 4-H materials/ leaders, veterinarians, experienced exhibitors, books, reputable internet sites such as colleges, the government, breed associations, club/fancier sites. List all the information necessary for someone else to find the source themselves.

Evaluation:

The Animal Science Notebooks will be evaluated on the following bases:

<u>Category</u>	<u>Points</u>
1. Animal Project Report	40
<i>(Scored as follows)</i>	
Exhibitor information	- 2
Project Plan	- 2
Animal Care	- 12
Costs	- 6
Photos	- 4
Project Experiences	- 12
Project Review and Comments	- 2
2. Question and Answers	40
<i>Scored on correctness of information and format as well as completeness and appropriateness of answers.</i>	
<i>Examples: For a Poultry Notebook, do not answer a question that pertains only to mammals such pregnancy length, or lactation. For non-meat animals, do not select questions related to meat production.</i>	
3. Neatness and proper order of contents	10
4. Attractiveness and creativeness of Notebook	10
Total points	100
A award ribbon	90-100 total points
B award ribbon	80-89 total points
C award ribbon	<80 total points

Judge's score sheet and comments will be placed in the inner front pocket of the Notebook so the exhibitor can see the reasons for the scoring.

Previous years' Notebook information will not be evaluated, only that of the current year.

Berrien County Youth Fair Animal Project Record

Animal Project \_\_\_\_\_

Years in the Project \_\_\_\_\_ Project Start Date \_\_\_\_\_ End Date \_\_\_\_\_

I. Project Plan (why I did this animal project)

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II. My Animal

A. How I got my animal:

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B. How I feed my animal (what and when):

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C. How I care for my animal and keep it healthy:

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D. What I did with my animal to prepare it for the Fair (training, special feed, housing, grooming, etc.)

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III. Project Expenses and Income

\$ \_\_\_\_\_ What the animal cost

\$ \_\_\_\_\_ Feed expenses for animal

\$ \_\_\_\_\_ Medicines, vaccinations, and vet expenses for animal

\$ \_\_\_\_\_ Other animal expenses (bedding, housing, etc.)

\$ \_\_\_\_\_ Total Expenses

\$ \_\_\_\_\_ Estimated Income from sale of animal at Fair (if appropriate)

IV. Project Experiences

A. The most valuable lesson I learned from this project was

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B. What I enjoyed most about this project was

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C. What I'll do differently the next time I do this project will be

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D. The funniest thing that happened to me while doing this project was

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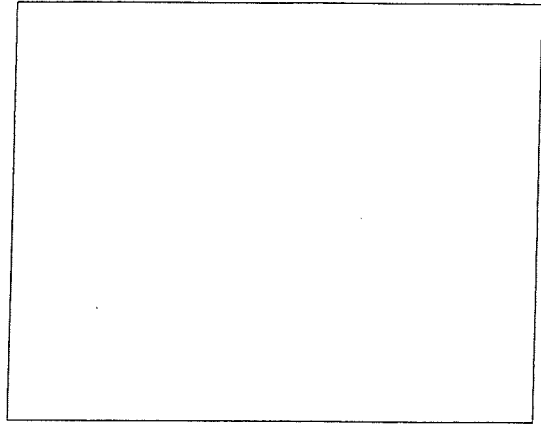
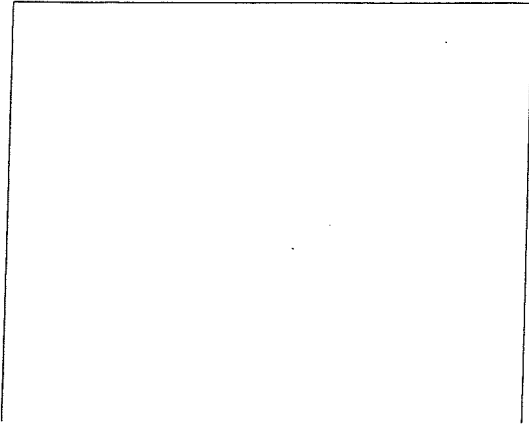
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V. Project Photographs

Start (my animal when I got it)

End (my animal just before Fair)



VI. Show Day

On the day I show my animal, here are all the things I do before I enter and after I leave the show ring.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

VII. Project Review and Comments

\_\_\_\_\_ (*exhibitor name*) has completed his/her animal project record on his/her own and I have reviewed it with him/her.

Comments:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
(Signature of parent/4-H leader/ project leader)

\_\_\_\_\_  
(Date)

Questions for Animal Science Notebooks at the Berrien County Youth Fair

Questions 1 – 85 can be answered for all animal species as indicated.

Questions 100 – 172 can be answered additionally for equines.

Questions 200 – 257 can be answered additionally for dogs.

Year  
Answered

Anatomy and Physiology

- \_\_\_\_\_ 1. Label a thorough diagram of the external parts of your animal.
- \_\_\_\_\_ 2. What is good conformation for your animal species?
- \_\_\_\_\_ 3. Describe common conformation defects of your species.
- \_\_\_\_\_ 4. Label a diagram of the digestive tract of your species and state one function of each part.
- \_\_\_\_\_ 5. Label a diagram of the circulatory tract of your species and state one function of each part.
- \_\_\_\_\_ 6. Label a diagram of the male or female reproductive tract of your species and state one function of each part.

Nutrition

- \_\_\_\_\_ 10. What are the 6 classes of nutrients required by your animal? What are good sources of each in your animal's diet?
- \_\_\_\_\_ 11. What is meant by "free choice" feeding? Explain why it is or is not a good method of feeding for your species.
- \_\_\_\_\_ 12. What is colostrum, and why is it so important that new born animals get an adequate amount of it?
- \_\_\_\_\_ 13. Discuss the tasks performed by water in your animal's body.
- \_\_\_\_\_ 14. What are the fat-soluble and the water-soluble vitamins required by your animal? What do they do in the animal's body?
- \_\_\_\_\_ 15. What are the macro-minerals and the micro-minerals required by your animal? What do they do in the animal's body?

Reproduction and Lactation

- \_\_\_\_\_ 20. Define puberty. What are the ages at which the male and female of your animal species reaches puberty.

- \_\_\_\_\_ 21. *Mammals:* How often does the female of your species come into estrus (heat), and how long does each estrus period last?
- \_\_\_\_\_ 22. *Poultry:* How often does the female of your species lay an egg (oviposition)? How long is it between ovipositions?
- \_\_\_\_\_ 23. Define artificial insemination, and explain how it is performed in your animal species.
- \_\_\_\_\_ 24. Define: inbreeding, outbreeding, crossbreeding.
- \_\_\_\_\_ 25. *Mammals:* Describe the reason for and the process of embryo transfer.
- \_\_\_\_\_ 26. *Mammals:* Define gestation. What is the gestation length of your animal species?
- \_\_\_\_\_ 27. *Poultry:* Define incubation. What is the incubation length of your species?
- \_\_\_\_\_ 28. *Poultry:* Describe the factors necessary for a successful incubation and good hatching rate.
- \_\_\_\_\_ 29. *Mammals:* Define parturition. What is the proper parturition position for the fetal animal?
- \_\_\_\_\_ 30. *Mammals:* Explain lactation. What is the average lactation period for your species?
- \_\_\_\_\_ 31. *Mammals:* Describe mastitis. How can this be prevented?
- \_\_\_\_\_ 32. *Mammals:* Define weaning. What is the usual age at which your species is weaned?

#### Health and Disease

- \_\_\_\_\_ 40. What are the normal body temperature, pulse rate and respiration rate of your animal? How is each of these measurements taken?
- \_\_\_\_\_ 41. Name three infectious diseases that affect your species and list the symptoms, treatment and prevention of each.
- \_\_\_\_\_ 42. What vaccinations are required for your animal to show at the Fair?
- \_\_\_\_\_ 43. What is ketosis, and how can it be prevented?
- \_\_\_\_\_ 44. What is the difference between biologicals and pharmaceuticals?
- \_\_\_\_\_ 45. Explain how an animal's skin and coat reflect its state of health.



- \_\_\_\_\_ 46. Name five types of stressors and how they can affect your animal.
- \_\_\_\_\_ 47. What are the internal parasites that affect your species?
- \_\_\_\_\_ 48. What are the external parasites that affect your species?
- \_\_\_\_\_ 49. Describe the life cycle of two internal parasites that affect your species.
- \_\_\_\_\_ 50. Describe the life cycle of two external parasites that affect your species.
- \_\_\_\_\_ 51. Explain how internal parasites can be controlled in your animal.
- \_\_\_\_\_ 52. Explain how external parasites can be controlled in your animal.
- \_\_\_\_\_ 53. List seven items that should be checked on the package label before applying or giving pesticide products to an animal.
- \_\_\_\_\_ 54. Name four problems caused by external parasites.
- \_\_\_\_\_ 55. In what ways do flies affect animals?
- \_\_\_\_\_ 56. Define coccidiosis and describe its symptoms, treatment and prevention.
- \_\_\_\_\_ 57. If your species is susceptible to it, describe foot/hoof rot, its symptoms, treatment and prevention.

#### Meat Production

- \_\_\_\_\_ 60. What is the ideal market weight for your animal? How long are they usually fed before going to market? What is an expected average daily rate of gain?
- \_\_\_\_\_ 61. Explain feed efficiency and how it is important to the economics of meat production.
- \_\_\_\_\_ 62. Label the wholesale cuts on a diagram of the carcass of your species.
- \_\_\_\_\_ 63. Label the retail cuts on a diagram of the carcass of your species.
- \_\_\_\_\_ 64. Name and explain the different grades of meat for your species.
- \_\_\_\_\_ 65. Name five meat by-products produced by your species.

### Breeds and Registration

- \_\_\_\_\_ 70. Name and describe five breeds of your animal species.
- \_\_\_\_\_ 71. For your species what are the names for: a young male, young female, castrated male, mature male, and mature female?
- \_\_\_\_\_ 72. What is a purebred animal?
- \_\_\_\_\_ 73. Name a state, national, and international breed organization for your species.
- \_\_\_\_\_ 74. Explain the processes of marking your animal of identification (leg bands, ear tags, tattoos, etc.)
- \_\_\_\_\_ 75. Discuss the registration requirements and the process of registering an animal of your species.

### Showing

- \_\_\_\_\_ 80. What are the different classes in which animals of your species can be shown?
- \_\_\_\_\_ 81. Describe in detail how to fit and groom your animal for the show ring.
- \_\_\_\_\_ 82. What special equipment do you use to show your animal?
- \_\_\_\_\_ 83. Describe proper show ring etiquette and good showmanship.
- \_\_\_\_\_ 84. Describe the techniques used to show your animal that differs from other species.
- \_\_\_\_\_ 85. Describe the proper attire to wear when showing your animal.

Animal Science Notebooks for the Berrien County Youth Fair  
Additional Equine Questions

Year  
Answered

Conformation and Breeds

- \_\_\_\_\_ 100. Discuss/describe in detail the muscle structure of the horse.
- \_\_\_\_\_ 101. Discuss and describe in detail the bone structure of the horse including the importance of joint angles.
- \_\_\_\_\_ 102. Select five of the following light horse breeds and describe the ideal conformation, foundation sires and/or history, colors, size, and uses of each:
- |              |               |              |
|--------------|---------------|--------------|
| Arabian      | Lipizzaner    | Morgan       |
| Mustang      | Quarter horse | Standardbred |
| Thoroughbred |               |              |
- \_\_\_\_\_ 103. Describe the ideal conformation, foundation sires and/or history, colors, size, and uses of the following draft breeds:
- |                |         |            |
|----------------|---------|------------|
| American Cream | Belgian | Clydesdale |
| Percheron      | Shire   |            |
- \_\_\_\_\_ 104. Describe the ideal conformation, foundation sires and/or history, colors, size, and uses of the following color breeds:
- |           |          |       |
|-----------|----------|-------|
| Appaloosa | Buckskin | Paint |
| Palomino  | Pinto    |       |
- \_\_\_\_\_ 105. Describe the ideal conformation, foundation sires and/or history, colors, size, and uses of the following pony breeds:
- |              |           |                       |
|--------------|-----------|-----------------------|
| Chincoteague | Connemara | Pony of America (POA) |
| Shetland     | Welsh     |                       |
- \_\_\_\_\_ 106. Describe the ideal conformation, foundation sires and/or history, colors, size, and uses of the following gaited breeds:
- |                     |                  |           |
|---------------------|------------------|-----------|
| American Saddlebred | Icelandic        | Paso Fino |
| Rocky Mountain      | Tennessee Walker |           |
- \_\_\_\_\_ 107. Describe ten horse and/or pony coat and mane/tail colors.
- \_\_\_\_\_ 108. Describe five face and five leg markings on horses.
- \_\_\_\_\_ 109. Diagram and describe the appearance of a horse's teeth at:
- |          |          |           |         |
|----------|----------|-----------|---------|
| Birth    | 6 months | 1 year    | 5 years |
| 12 years | 15 years | >20 years |         |
- \_\_\_\_\_ 110. Label a complete diagram of the hoof from the sole and side.

### Grooming

- \_\_\_\_\_ 120. Basic grooming – Include a diagram and explain how each of the following are used:  
Curry comb                  Dandy brush                  Body brush  
Hoof pick
- \_\_\_\_\_ 121. Describe the proper trimming and shoeing of a horse hoof.
- \_\_\_\_\_ 122. Show grooming – Include a diagram and describe how and why each of the following are used:  
Rub rag                  Scissors                  Clippers                  Sponge  
Mane/tail comb                  Sweat scraper                  Hoof dressing

### Health and Disease

- \_\_\_\_\_ 123. Describe cause, symptoms, prevention and treatment for:  
Colic                  Heat stroke                  Thrush                  Founder
- \_\_\_\_\_ 124. Discuss the care of the following wounds:  
Punctures                  Bruises                  Cuts                  Saddle sores
- \_\_\_\_\_ 125. Describe cause, symptoms, prevention and treatment for:  
Poll evil                  Fistulous withers                  Side bone                  Heaves
- \_\_\_\_\_ 126. Describe cause, symptoms, prevention and treatment for:  
Splints                  Shoe boil                  Bog spavin                  Wind puffs
- \_\_\_\_\_ 127. Describe cause, symptoms, prevention and treatment for:  
Bone spavin                  Bowed tendons                  Quarter crack  
Navicular disease
- \_\_\_\_\_ 128. Describe cause, symptoms, prevention and treatment for:  
Tetanus                  Strangles                  Influenza  
Equine Infectious Anemia
- \_\_\_\_\_ 129. Describe cause, symptoms, prevention and treatment for:  
Sleeping sickness                  Equine Protozoal Myeloencephalitis  
West Nile Virus                  Rhinopneumonitis
- \_\_\_\_\_ 130. Describe the proper care of a horse's teeth throughout life.

### Handling and Safety

- \_\_\_\_\_ 140. Describe how a horse sees the world including eye placement, color vision, depth perception, field of vision.

- \_\_\_\_\_ 141. Describe the proper way to catch, lead, and release a horse.
- \_\_\_\_\_ 142. Discuss the psychology of a horse, why it behaves the way it does, in three different situations of your choice.
- \_\_\_\_\_ 143. Discuss three safety rules for each of the following:  
                   Grooming                    Trailer                    Trail riding
- \_\_\_\_\_ 144. Discuss the cause, treatment and prevention of these vices:  
                   Barn sour    Cribbing    Rearing    Striking    Shying
- \_\_\_\_\_ 145. Discuss the cause, treatment and prevention of these vices:  
                   Herd-bound    Bucking    Balking    Biting  
                   Halter pulling
- \_\_\_\_\_ 146. Show picture/diagrams and explain the bowline knot and the manger tie.

#### Training

- \_\_\_\_\_ 150. Discuss in general terms the handling, care and training of a foal from birth to 3 years old.
- \_\_\_\_\_ 151. Discuss the type (size, personality, training) of horse suitable for beginners, small children and/or handicapped riders.
- \_\_\_\_\_ 152. Describe the use of the following natural aids:  
                   Hands    Heels    Legs    Weight    Rider position
- \_\_\_\_\_ 153. Describe use of the longe line in training and exercising.
- \_\_\_\_\_ 154. Describe these four natural gaits including the number of beats or footfalls, and how the legs move in each:  
                   Walk            Trot            Canter            Gallop
- \_\_\_\_\_ 155. Describe these four gaits including the number of beats or footfalls, and how the legs move in each:  
                   Stepping pace    Running walk    Pace            Rack
- \_\_\_\_\_ 156. Explain the training of an over-fences horse/pony.
- \_\_\_\_\_ 157. Explain ground tying, hobbling and picketing a horse/pony.
- \_\_\_\_\_ 158. Discuss the method and reasons for 'cooling out' a horse.

### Tack

- \_\_\_\_\_ 160. Describe the driving horse/pony, harness and suitable vehicles for:  
Pleasure    Fine harness    Roadster    Pulling
- \_\_\_\_\_ 161. Label the parts of a Western saddle on a complete diagram.
- \_\_\_\_\_ 162. Label the parts of an English saddle on a complete diagram.
- \_\_\_\_\_ 163. Name and label the parts of 4 Western bits on a diagram of each.
- \_\_\_\_\_ 164. Name and label the parts of 4 English bits on a diagram of each.
- \_\_\_\_\_ 165. Describe the care, cleaning and maintenance of the metal, leather, and cloth parts of your tack.
- \_\_\_\_\_ 166. Describe the forward, balance, and saddle seats, and their correct tack.
- \_\_\_\_\_ 167. Describe the correct tack for Western trail classes, gymkhana, and for reining classes.

### Showing

- \_\_\_\_\_ 170. Discuss the do's and don'ts of Western Horsemanship.
- \_\_\_\_\_ 171. Discuss the do's and don'ts of English Equitation.
- \_\_\_\_\_ 172. Discuss the appropriate mane and tail styling for showing in hunt seat, dressage, saddle seat and western classes.

Animal Science Notebooks for the Berrien County Youth Fair  
Additional Dog Science Questions

Year  
Answered

Conformation and Breeds

- \_\_\_\_\_ 200. Name the seven groups of dogs as classified by the AKC and state the general purpose of each.
- \_\_\_\_\_ 201. Paste or draw a picture of one breed of dog from each of the 7 AKC groups and discuss the characteristics of each breed pictured.
- \_\_\_\_\_ 202. Paste or draw a picture of one breed of dog from each of the 7 AKC groups and discuss the history and development of each breed.
- \_\_\_\_\_ 203. List all the breeds in the Hound Group and state whether they are sight or scent hounds.
- \_\_\_\_\_ 204. List all the breeds in the Working Group and state the purpose for which each breed was developed.
- \_\_\_\_\_ 205. List all the breeds in the Sporting Group and tell if they are flushers, retrievers, and/or pointers.
- \_\_\_\_\_ 206. Explain what the Miscellaneous group is and its importance.
- \_\_\_\_\_ 207. Discuss the breed standard and faults for your breed, or a breed you'd like to own.
- \_\_\_\_\_ 208. Define the following terms:  
Angulation            Fiddle front            Splay foot  
Close-coupled        Sway back                Cow hocked  
Down in pastern     Out at elbows
- \_\_\_\_\_ 209. Define the following terms:  
Bat ear                Rose ear                 Apple head  
Dish face             Ring tail                 Screw tail  
Undershot             Overshot

Genetics and Nutrition

- \_\_\_\_\_ 210. Discuss and explain line-breeding, out-breeding and inbreeding.
- \_\_\_\_\_ 211. Discuss three inherited problems that are found in dogs.
- \_\_\_\_\_ 212. Discuss the problems that can be caused by lack of proper nutrition.

### Health and Disease

- \_\_\_\_\_ 220. Explain and diagram the life cycle of the heartworm.
- \_\_\_\_\_ 221. Explain the procedure for the prevention of heartworm disease.
- \_\_\_\_\_ 222. What problems can extreme summer heat cause a dog and how can they be prevented?
- \_\_\_\_\_ 223. Explain what is needed to properly house a dog kept outside.
- \_\_\_\_\_ 224. Discuss how to give your dog medication orally and in the eyes.
- \_\_\_\_\_ 225. Discuss dog population problems, the lack of owner responsibility for dogs, and what can be done to correct these problems.

### Training

- \_\_\_\_\_ 230. Discuss the importance of obedience training for the family dog.
- \_\_\_\_\_ 231. Discuss the crate and how and when it should be used.
- \_\_\_\_\_ 232. Describe the difference between compulsive and inductive training.
- \_\_\_\_\_ 233. Explain what important things a dog should be taught before six months old.
- \_\_\_\_\_ 234. Discuss five jobs for which dogs are trained.
- \_\_\_\_\_ 235. Name the three kinds of collars and explain their uses.

### Grooming

- \_\_\_\_\_ 240. Describe all the steps needed to properly groom a dog.
- \_\_\_\_\_ 241. Explain how to trim and care for a dog's nails and include a labeled diagram of the nail.
- \_\_\_\_\_ 242. Discuss and explain how and where the following tools are used:  
Slicker brush      Nail clippers      Pin brush  
Steel comb      Mat splitter      Soft brush
- \_\_\_\_\_ 243. Describe what is meant by 'stripping' and the breeds on which it is primarily used.



Showing

- \_\_\_\_\_ 250. Discuss the fundamentals of Junior Showmanship.
- \_\_\_\_\_ 251. Explain the differences between Junior Showmanship, Conformation and Obedience classes at a dog show.
- \_\_\_\_\_ 252. Explain and diagram the three different gaiting patterns used in Junior Showmanship
- \_\_\_\_\_ 253. Explain how a dog is 'stacked.'
- \_\_\_\_\_ 254. Diagram and explain the classes through which a dog must advance to become 'Best in Show.'
- \_\_\_\_\_ 255. Explain what a dog must do to earn an OTCH and a CH.
- \_\_\_\_\_ 256. Name the exercises in the Novice, Open and Utility Obedience classes.
- \_\_\_\_\_ 257. Explain what each of the following abbreviations stand for:
- |     |     |      |    |     |
|-----|-----|------|----|-----|
| BOB | BOS | BOW  | CH | CD  |
| CDX | CGC | OTCH | TD | TDX |
| UD  | UDX | WB   | WD |     |

