Dog Resource Handbook

The Ohio State University
College of Food, Agricultural, and Environmental Sciences
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The 4-H Dog Project

Overview

The 4-H dog program provides positive learning experiences and opportunities for diverse youth, encouraging them to reach their potential through year-round active involvement in dog projects and activities. Dog projects provide the catalyst for youth to experience and practice life skills until they are mastered and used in everyday activities, helping them develop as competent, capable, caring, and contributing citizens.

4-H volunteer advisors are caring adults who teach youth how to socialize and train their dogs to be well behaved in their homes and communities, and around other dogs. They give their support and expertise on a year-round basis, as the commitment of youth to their dogs is yearlong. Advisors teach youth responsible dog ownership and the skills needed to safely handle and train dogs. Providing an emotionally and physically safe environment for members allows them to focus on learning the cognitive and physical skills needed to be successful with their dog projects.

4-H members are engaged in, practice, and demonstrate proficiencies with their dogs at various levels of obedience, showmanship, rally, team and brace, and agility. They are engaged in hands-on learning opportunities through dog skillathons, knowledge bowl games, and county and state fair evaluations. Youth who are not as interested in showing their dogs can still “show off” what they have learned and taught their dogs in a family dog (dog care) evaluation. 4-H members express creativity by designing educational dog poster displays and contests, and obedience and style patterns for dog drill team demonstrations and competitions.

Raising a puppy for Pilot Dogs, Inc., or other assistance dog organizations, gives youth opportunities to socialize, manner, and train puppies to eventually provide a service to their human partners, who gain a new sense of freedom and independence.

The bond that develops between youth and dogs provides a stimulus for youths to help others in their community. 4-H members and their dogs, as 4-H PetPALS, visit senior adults in nursing homes or assisted living facilities. They visit youth and adults with physical or cognitive disabilities. 4-H members and their dogs participate in walk-a-thons and other community service projects. Youth participate with their dogs in 4-H project awareness opportunities in schools and throughout the community.

Youth learn critical thinking skills through training opportunities in dog care, agility, obedience, showmanship, assistance dogs, and rally. They are prepared for the unexpected when working with dogs. 4-H members learn...
how to be flexible, as well as how to think clearly and rationally, when confronted with situations during handling, socializing, and training their dogs.

4-H members practice setting short-term and long-term goals for their projects and 4-H careers. Youth have opportunities to explore careers related to dogs and the dog industry. Dog projects can serve as stepping stones to future involvement with dogs and dog-related organizations, such as kennel and breed clubs, dog rescue groups, or humane societies.

Guidelines for Completing a 4-H Dog Project

1. The *Dog Resource Handbook* contains subject matter that helps 4-H members be successful with their 4-H dog projects. Each 4-H dog project member is required to have access to the *Dog Resource Handbook*. Individual members can purchase their own copies, or one handbook may be purchased and shared among family members.

2. Complete one or more sections of the 4-H 201 *Dog Project and Record Book* that corresponds to the type of project(s) you are taking:
   - **You and Your Dog**: For youth who prefer to enjoy the companionship of their dogs without involvement in competitive events such as obedience, showmanship, and performance events. Also recommended for first-year members just learning about dogs.
   - **Obedience**: Covers beginning and advanced obedience training.
   - **Showmanship**: Includes the basics of dog showmanship.
   - **Performance Dog**: Includes agility, drill team, and other performance events.
   - **Working Dogs**: Includes assistance dogs such as Pilot Dogs, Inc., Canine Companions for Independence, and other service dog organizations.

3. Keep accurate project records for each type of project and each dog taken.

4. Assume continual care of your dog(s) throughout the project year.

5. Follow state and county guidelines for ownership, training, and showing.

6. Make sure your project registration and/or entry form is completed and submitted to the county Extension office on time.

7. If you plan to participate in pre-fair, county fair, or state fair activities, know your county’s guidelines and rules, and know your state fair rules.

Benefits to a 4-H Member

1. **Life skills development.** As a dog owner, you learn many life skills that help you become a responsible and competent individual. Some of these life skills include managing resources, making decisions, solving problems, learning to learn, reasoning, thinking critically, keeping records, planning and organizing, achieving goals, communicating, cooperating, sharing, caring for others, being empathetic, learning through community service, completing a project/task, motivating yourself, and being responsible. What other skills can you think of? Refer to the Targeting Life Skills Model, extension.iastate.edu/4h/explore/lifeskills, to learn more about life skills development.

2. **Selection.** Whether you and/or your family currently own a dog, or you plan to own one in the near future, knowing what questions to ask and breed characteristics to look for make selecting the right puppy or dog a rewarding experience.

3. **Record keeping.** One requirement for completing your dog project is keeping accurate records. Inaccurate records do not reflect what you have accomplished with your project. By keeping good records from the beginning of your project, you learn how much it costs to keep your dog, including expenditures for feed, equipment, veterinary care, training, and showing. Keep records on a weekly or monthly basis. Do not wait until so much time has passed that it is hard to remem-
ber what you have done. Keep receipts when you purchase anything for your project. This helps you learn the expenses involved in owning a dog.

4. **Nutrition.** You learn the nutrient requirements of dogs, and how their diet affects their overall health.

5. **Health.** You learn how to participate in a year-round wellness program to keep your dog healthy and prevent diseases.

6. **Competition.** You benefit from learning to care for and show your project, and to compete gracefully.

7. **Ownership pride.** Owning and caring for dogs gives you a feeling of pride and satisfaction. Forming a close bond with your pet provides you with endless hours of companionship.

8. **Professional and social development.** Having a dog project brings you into contact with successful dog owners, breeders, and judges, as well as project leaders and other 4-H members.

9. **Career exploration.** Meeting professionals in the dog world and learning the importance of dogs in society gives you opportunities to explore careers in the companion animal businesses and an appreciation for this fast-growing industry.

10. **Animal welfare.** Your awareness of the issues of animal well-being and ethics is increased. Animals play a vital role in society, and therefore deserve our protection and compassion.

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**Teamwork for the Common Goal**

The purpose of all project work is to enhance the education, experience, and development of young people, a purpose that is not realized without the involvement of several people working as a team. The successful completion of the dog project depends upon the combined efforts of parents or guardians, experts, 4-H leaders, and you, the 4-H member. All contribute to successful teamwork.

**A Message to Parents or Guardians**

This *Dog Resource Handbook* is intended for use by youth who are eight years old and in the third grade through eighteen years old. The reading level and terminology in this book is difficult for a younger 4-H member. It is very important that a younger 4-H member has the help of an older youth or adult to interpret and understand the information in this book.

Behind most successful club members are parents or guardians who are truly enthusiastic about the projects their children are taking. These parents offer supervision, assistance, and encouragement to the 4-H member working through projects. The payoff from this involvement is an exciting learning experience, and sometimes may even include honors and prizes at county and state fairs. If you are willing to help in these ways, you can make a big difference.

Be aware that while adult support is clearly important, it is equally important that adults not go too far. That is, as a parent or guardian of
a 4-H member undertaking a project, you should assist and supervise only to a reasonable extent. Help out as much as is necessary, but do not do the various chores and requirements called for by the project. These are for the 4-H member to do. It is also inappropriate for a professional to own, train, or care for the project dog(s). Families and 4-H members own the project animals, but 4-H members are responsible for their care and training.

Also keep in mind that most projects, especially those involving animals, require adjustments at home and some investments to be successful. For this project, proper housing, equipment and supplies, nutrition, veterinary care, and training are needed to help the 4-H member have a successful experience. Resources for keeping records are also necessary.

Remember, the 4-H member’s success in this and all projects depends to a large extent on the encouragement and support—in the appropriate measures—that only you can give.

A Message to 4-H Advisors

As people directly concerned with youth development, it is the responsibility of every 4-H advisor to help each member who wants to take his or her dog as a 4-H project (and who has the resources to do so) learn lifelong skills and be successful. Through 4-H meetings and activities, 4-H advisors help youth set goals, identify resources, learn public speaking skills, gain confidence, and evaluate their own progress with their dog projects.

Eight Key Elements for a Positive 4-H Experience in Taking Dog Projects

Eight elements have been identified as key elements in making a young person’s 4-H experience a positive one. It is unlikely that all eight elements prevail at one time; however, elements such as a caring adult and a safe environment must be in place at all times. Information below identifies and defines the eight key elements for a positive 4-H experience for youth taking dog projects. Can you identify more “indicators” of each key element?

1. A Positive Relationship with a Caring Adult

Young people’s understanding of what it means and what it takes to be productive, self-assured citizens depends largely on the adult role models and connections they have. Caring adults serve as guides, mentors, and role models to 4-H members. They help youth discover their personal visions, missions, and lifetime goals. Caring adults help set appropriate boundaries and expectations for youth engaged in 4-H programs.

Indicators of a positive relationship with a caring adult through 4-H dog projects:

- Adult family members commit to year-round support and participation.
- Volunteers commit to the same youth through the entire 4-H project year.
- Volunteers teach youth age-appropriate dog subject matter while supporting their efforts.
- Volunteers guide youth through learning activities while actively participating themselves.
- Volunteers lend their support and expertise as needed year-round.
- Volunteers engage youth in establishing group parameters, rules, behaviors, and expectations.
- Older youth serve as mentors for younger members.

2. An Emotionally and Physically Safe Environment

Youth should not fear physical or emotional harm from our learning environment, adults who work with them, or other youth. In our world today, this element is especially important. 4-H strives to provide a safe environment at each and every activity involving our youth.

Indicators of a safe environment through 4-H dog projects:

- Volunteers teach youth safe handling and training techniques.
- Volunteers teach youth skills needed to socialize and temperament test their dogs.
- Volunteers and/or adult family members temperament test dogs prior to members bringing them together.
• An environment that is safe for introducing youth and dogs is created.
• Positive behavior guidelines are set for youth, and for youth and dogs.
• Regional and statewide clinics are offered for volunteers to learn how to work with youth and dogs.

3. A Welcoming Environment
A welcoming environment is one that actively cultivates a sense of group identity and belonging, encourages and supports its members, offers encouragement with positive and specific feedback, and shares the successes of all members of the 4-H group by providing many forms of recognition.

Indicators of a welcoming environment through 4-H dog projects:
• Volunteers involve all youth in introductory activities.
• Volunteers involve all youth in meetings and club activities.
• Volunteers practice age-appropriate teaching methods, involving older members as mentors of younger members.
• Volunteers create an environment to encourage group decision-making.
• Volunteers consider, evaluate, and give feedback to members’ thoughts, ideas, and decisions.
• Volunteers give positive feedback during dog socialization and training activities and member educational activities.
• Group identity is well established as evidenced by such things as club t-shirts, banners, and pet bandanas with club name.
• Volunteers hold recognition events for youth, including graduation events for youth and their dogs when training exercises are completed.
• Youth celebrate their successes throughout involvement in the dog program.

4. Engagement in Learning
An engaged youth is one who is not only mindful of the subject area, but who is building relationships and connections to develop greater understanding. 4-H provides opportunities for self-reflection that enable youth to connect what they learn today to their futures. Hands-on learning provides opportunities to develop important life skills.

Indicators of engagement in learning through 4-H dog projects:
• Dogs are the “hook” that engage youth in hands-on learning opportunities specific to dog subject matter.
• Dogs are vehicles that engage youth in a broad scope of 4-H opportunities such as camps, international programs, complementary projects, award trips, and scholarships.
• Youth take ownership of their group and design a project plan for accomplishing their goals with their dog projects.
• Youth learn many life skills as a result of engagement in dog projects.

5. Mastery and Competence in a Chosen Activity or Subject Matter
Young people learn best when the program or activity is centered on a topic that is of personal interest or a passion. Providing an opportunity for mastery and competence allows youth to experience success and achievement that in turn serve as building blocks for their success—not only in 4-H, but also in their school and community work.

Indicators of mastery and competence through 4-H dog projects:
• Dogs and dog subject matter provide the topic of personal interest.
• Youth practice and demonstrate skills with their dogs at various levels of obedience, showmanship, dog care, agility, and other events.
• Youth practice and demonstrate skills related to educational dog activities, such as the dog skillathon, dog poster contest, and dog knowledge bowls.
• Youth set goals and objectives for projects and activities in which they participate.
• Youth take turns teaching each other.
• Youth become confident in their abilities and their dogs’ abilities.
6. Self-Determination

Youth must believe that they can impact the events in their lives, rather than events having control over them. The opportunities we provide through 4-H help youth foster a personal sense of influence over their lives, exercising their potential to become self-directing, autonomous adults.

Indicators of self-determination through 4-H dog projects:
- Volunteers and older youth are involved as facilitators, mentors, and teen leaders.
- Youth are a part of the decision-making process for group activities and dog skill sessions.
- Youth learn critical thinking skills and how to improve them through dog skill sessions in dog care, agility, obedience, showmanship, assistance dog training, freestyle, and drill team.
- Youth learn to be prepared for the unexpected when working with dogs.
- Youth learn how to be flexible as well as how to think clearly and rationally when confronted with situations during training and handling of dogs.

7. Opportunity to Value and Practice Service for Others

Service is a way for 4-H members to gain exposure to the larger community and the world. It is necessary for youth to actively practice and value serving others. Many times, this experience enables young people to recognize the difference they can make for others and for their communities.

Indicators of valuing and practicing service for others through 4-H dog projects:
- Volunteers and older youth serve as mentors to help younger members participate in club activities and safely work with their dogs.
- Youth enroll in the assistance dogs project and raise a puppy as a guide dog, hearing dog, or service dog.
- Youth have the opportunity to participate with their dogs in 4-H PetPALS, an inter-generational community service project.
- Youth have the opportunity to organize dog walk-a-thons and other service fund raisers.
- Youth have the opportunity to volunteer at a local kennel, animal shelter, humane society, or veterinary clinic.
- Youth have a sense of pride in seeing their dogs brighten the lives of others.
- 4-H dog projects serve as a stepping stone for youth’s continued interest and participation in other community service projects and activities.

8. Active Participation in the Future

Providing youth with the opportunity to see themselves in the future gives them the hope and optimism to shape their life choices accordingly. Leaders can teach all the facts and figures in various subject matter areas, but if they don’t link the information to the future, those facts and figures will likely go unused. 4-H is committed to positive youth development programs that make the connection from today’s activities to tomorrow’s successes.

Indicators of seeing one’s self as an active participant in the future through 4-H dog projects:
- Youth have opportunities to explore careers related to dogs and the dog industry.
- Youth have opportunities to outline and realize goals.
- Youth have opportunities to make decisions about future activities and programs not inclusive to 4-H dog projects.
- 4-H dog projects may serve as the stepping stone to future involvement with dogs and dog related organizations, such as kennel and breed clubs, dog rescue groups, or humane societies.

A Message to 4-H Members

After you have made the decision to take a dog project, it is important to know what you want to learn throughout the project year. Dogs are year-round companions as well as project animals. They are a part of your family, and at
At the end of your 4-H year, you will continue to care for your dog and keep that bond strong. Information in this resource handbook should help you learn more about dogs and better prepare you to be successful with your project. Learning about the dog’s anatomy, senses, behavior, communication, health, and nutrition helps you understand more about canines. You can learn about the various show aspects, have the opportunity to practice obedience and showmanship, or simply learn about caring for your dog as the “family” dog, with no intent of taking your dog in the show ring.

By teaching you these principles through information and experience, this project makes it possible for you to be a responsible and knowledgeable dog owner able to fully appreciate the significance of the human-animal bond. To have a successful project you must be willing to study, review, and apply the information contained in this handbook.

Results of 4-H Youth Development Programs

Research has shown that as a result of 4-H Youth Development programs:

1. **Youth develop marketable skills for lifelong success.**
   
   Youth gain important leadership, communication, problem-solving, and teamwork skills. These abilities are gained through the numerous projects and activities in which youth participate as 4-H members. Such skills are important not only to immediate success of the 4-H projects but to continued success of many endeavors.

2. **Youth engage in community service and citizenship to transform local communities.**
   
   This goes beyond just conducting a project; its focus is on recognizing that youth can make valuable contributions to their local communities. Youth can make a difference.

3. **Youth appreciate and build upon diversity to foster a harmonious global society.**
   
   This is a critical awareness tool for success of youth today and far into the future. Rather than looking at the differences in people as potential sources of conflict and disengagement, our goal is for our youth to recognize these differences as opportunities for positive and rewarding experiences.

4. **Youth build sustained relationships with adults that enable them to become better citizens.**
   
   We can all remember the significant contributions an adult had during our adolescent lives. Similarly, adult 4-H volunteers should make a great positive impact on the lives of 4-H youth.

5. **Volunteers build skills and abilities to more effectively work with youth.**
   
   Land-grant universities throughout the nation provide educational opportunities in subject areas, working effectively with youth, and leading positive youth development programs. Extension professionals and other university faculty and staff teach volunteers the many skills and abilities needed to work effectively with youth through educational workshops, clinics, and conferences.

Dress your dog 4-H style with clothing and supplies available from the 4-H Mall at 4-Hmall.org.
Chapter 1
Characteristics of Dogs

What Makes a Dog a Dog

Dogs, like humans, are mammals. That is, both are warm-blooded vertebrates that nourish their young with milk.

Are dogs carnivores or omnivores? Dogs are carnivores because they exist on a diet of meat in the wild, and if given a choice today, they prefer to eat fresh meat. However, modern dogs need additional nutrients for a balanced diet, and they like to eat and digest most food types. (This is unlike cats, who are true carnivores and who must have meat in their diets.) Even though dogs are considered carnivores, they eat an omnivorous diet, as most dog rations contain plant and animal foods.

All domestic dogs have many common characteristics. Carnivores possess four carnassial teeth, distinguishing them from all other meat eaters. As predators, dogs crush and cut meat, and grind food and hard substances with their four upper pre-molars and the first lower molars. Mature dogs have a total of 42 teeth.

Dogs are mammals, giving birth (called whelping) to their young, called puppies. They nurse their puppies by mammary or milk-producing glands that may or may not be covered by visible hair.

Dogs have four active toes or digits on each foot. All dogs have dewclaws on the inside of their front feet that historically were probably larger, serving as fifth toes, but now have no function. Some dogs have dewclaws on their hind feet. Dogs’ claws do not retract like those of cats.

Gestation averages 63 days, and puppies’ eyes open at about two weeks of age. Dogs’ body language and expressions are similar when they show signs of playfulness, aggression, submission, fear, and other sentiments. They vocalize in the same manner using growling, barking, howling, and whining to express themselves in different situations.

Here is common dog terminology that you should know: The term dog is used to designate either a male or female dog. However, the term also means “a male canine.” The term bitch denotes a female canine. The term whelp, used as a verb, means “to give birth to puppies,” but whelp, used as a noun, refers to “an unweaned puppy.” A puppy is a young dog, usually under 12 months old. A dam is the female parent (mother) of a dog, and the sire is the male parent (father).

History of the Dog

Domestic dogs are listed in the scientific classification of animals within the class Mam-
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mala, order Carnivora, family Canidae, genus Canis, and species Canis familiaris. The 10 genera of Canidae are divided into four groups: dogs (genus Canis), foxes (genus Vulpes), culpeos (genus Dusicyon), and bush dogs (all other genera). The dog group includes the dhole, African wild dog, and canis. The dhole and African wild dog have no other species in their genera, while the Canis group includes the dingo, jackal, coyote, wolf, and domestic dog.

Dogs were the first animals domesticated by humans. History suggests that dogs became domesticated and used by humans 12,000 to 15,000 years ago. While the path of domestication of the dog is not fully documented, one theory suggests that as humans moved from primarily hunting to hunting and farming, young wolves moved into their settlements as scavengers. The farmers watched the wolves' instincts and saw characteristics that could help them hunt, protect people and property, and herd livestock. From that point, people began taming and selectively breeding these animals to serve their needs, unconcerned about the dog’s appearance.

These early domestic dogs evolved through selective breeding into different types of dogs with similar characteristics, which were eventually recognized as breeds. Approximately 400 breeds of dogs inhabit the world. This number varies because of the many varieties of dogs that might be classifiable as separate breeds, but are not recognized by the various international kennel clubs and breed registration groups.

Dogs serve a multitude of purposes. Assistance dogs help people with hearing, sight, and mobility impairments to function more independently. Dogs perform search-and-rescue duties, detect drugs and bombs, hunt small and large game, herd livestock, guard property, and pull sleds. But most of all, dogs are our friends and companions. They are social animals that thrive on the companionship of humans and other dogs. Devoted to their owners, dogs provide countless hours of unconditional friendship, love, and fun.

How Dogs Evolved

There is speculation among scientists about the exact evolution of the dog. One recurring theory is, the domestic dog’s earliest ancestor was probably a small ferret-like animal called Miacis. The Miacis lived as a forest dwelling carnivore in trees during the Eocene epoch, 38–55 million years ago. As geologic ages passed, scientists believe some of the Miacis’ descendants evolved into running animals in order to capture prey for food. These descendants included the Hesperocyon, emerging during the Oligocene epoch, 26–38 million years ago and the Leptocyon, evolving during the Miocene epoch, 7–12 million years ago. It was during this Miocene epoch that 42 different genera of dog-like animals appeared.

The foundation stock for modern canids began to evolve about 2 million years ago at the end of the Pliocene epoch and the beginning of the Pleistocene epoch. Members of the genus Canis appeared in Eurasia or Asia about one million years ago, before the Eurasian continent and the Americas were separated. They migrated back and forth between these continents and the Americas, mainly in the Northern Hemisphere.

Dogs appear to be more like wolves than any other animal, inheriting the wolf’s keen hearing, sight, and smell. Scientists believe the domestic dog, Canis familiaris, is most closely related to the gray wolf, Canis lupus.
Progenitors of the Dog

**Creodonts**

100–50 million years ago

The *Creodonts* were a group of small, meat-eating animals.

**Miacis**

54–38 million years ago

Fossil teeth from *Miacis* reveal that this carnivore lived during the Eocene epoch. These small animals had spreading paws, indicating a probable tree-dwelling lifestyle.

**Hesperocyon**

38–26 million years ago

This possible direct ancestor of the dog family developed in what is now North America, between 38 and 26 million years ago. This is the most ancient species to have an inner-ear anatomy, which is characteristic of the canine family.

**Leptocyon**

12 million years ago

By the Miocene epoch, between 26 and 7 million years ago, 42 different genera of dog-like canines had emerged. Of these, *Leptocyon* is now thought to be the true ancestor of the dog and all other modern carnivores.

**Canidae**

2 million years ago

At the end of the Pliocene and beginning of the Pleistocene epochs two million years ago, the foundation stock for all modern carnivores evolved. The previous 42 genera of canines had reduced considerably to the 10 genera of today. The largest of these is *Canis*, of which wolves, jackals, the Coyote, and dogs are members. The second largest group is the *Vulpes* group of 12 species of fox.


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**Scientific Classification of Dogs**

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Modern Dogs and Their Ancestors

North American Wolf
This is the major source for North American breeds like the Alaskan Malamute and Canadian Eskimo Dog. Wolves from China probably crossed the Bering land bridge, adding their genes to the development of early North American dogs.

Chinese Wolf
Chinese breeds such as the Chow Chow and Pekingese descend from Asian Wolves that lived in China. Wolves from northern India and Tibet were also involved in early breeding.

Indian Wolf
Asian Wolves throughout India and through to Persia and the Middle East were involved in the development of the widest variety of dog breeds.

European Wolf
Large European Wolves probably added their genetic lines to dogs that evolved from Asian Wolves. It is highly unlikely that any of the dog breeds that exist today can trace their origins directly to any one subspecies of wolf.

Adapted from The New Encyclopedia of the Dog (2000) by Bruce Fogle.