Kansas 4-H Poultry Leader Notebook  
Level I  Introduction for Leaders  

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What Members Will Learn . . .

ABOUT THE PROJECT:
- Ten external parts of a chicken
- To relate the parts to their specific function

ABOUT THEMSELVES:
- The importance of understanding their preferred learning style

Materials Needed:
- Activity Sheet 1, Parts of a Chicken
- Leader’s Key, Activity Sheet 1, Parts of a Chicken
- Labels with chicken part names
- Pencils, crayons or color markers
- Activity Sheet 2, Color a Rainbow Chicken
- Member Handout 1, Comb Types

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:
Approximately 30 terms are used to describe the different external (or outside) parts of a chicken. A knowledge of these parts is necessary to recognize the characteristics of the species, breeds and varieties of poultry that make them different from each other. Knowing these parts will also help to determine the sex of a chicken, and whether a hen is laying or not.

The diagram shows the major external parts of a female chicken. The male and female chicken have many identical parts. The (1) beak is the mouthpiece of the bird. The lower part is hinged at the jaw and is movable; the upper part is attached to the skull. The (2) comb and (3) wattles are red, soft, fleshy appendages on the head of the chicken. The size and redness of these appendages vary. A non-laying hen will have a small, dull-appearing comb and wattles; a layer will have large, bright red comb and wattles. There are different types of combs that are inherited characteristics of the breeds and varieties. The single comb shown on the diagram is most common. Other common types are the V-shaped, rose and pea combs. Chicken (4) eyes have color vision and show a preference for the violet and orange colors. They are slightly farsighted, which means they can see things better far away than close up. The color of the (5) earlobe, either red or white, depends on the breed. The (6) ears are small openings into the auditory canal protected by small feathers. The neck feathers are called (7) hackle feathers on the male and (7) neck feathers on the female. The (8) breast is located in the front of the chicken. The breast (9) keel bone is the lower portion of the skeleton. The back area on the male is
called the (10) saddle and the (10) cushion on the female. The (11) tail area has different types of feathers depending on the sex of the bird. For example, the male has long (12) sickle feathers. The (13) wing has various types of feathers that are not easily identified in the standing bird. However, when the wing is spread, the long (14) flight feathers and the (15) covert feathers which cover the base of the flight feathers are distinguishable. The (16) thighs are not easily seen as they are located along each side of the body and are covered with feathers. The lower part of (17) leg (drumstick) is also covered with feathers and bends at the (18) hock joint (ankle). The (19) shank which is the chicken’s foot is covered with scales. The shank may be clean or feathered depending on the breed and variety. The spur is found on the male bird only, and is a bony growth which grows from the rear inside of the shanks. A chicken walks on its (20) toes. Most chickens have three toes projecting forward and one toe projecting back. (A few breeds have five toes.)

**Function of Parts**

In the summer when it is really hot outside, people will perspire to release the excess heat from their bodies. Birds do not have sweat glands like humans do, but the comb and wattle areas allow heat to escape from the bird. What other things do birds do to keep cool? They also pant, spread their wings and lay on cool surfaces, such as the ground, to keep cool.

How do you stay warm in winter? During winter, people wear more clothing to protect themselves from the cold temperatures. How do you think birds keep warm? The feathers act as insulation against cold temperatures. When a bird is exposed to cold, its feathers will stand up to help conserve body heat. Birds also shiver like humans do when they get cold. Shivering helps to produce additional body heat.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

1. Which part was easiest to identify? Why?

2. Which part was the most difficult to learn? Why?

**Process:**

3. How many of the chicken’s parts can you remember?

4. What parts are different for male and female chickens?

**Generalize:**

5. Which activity (matching or coloring) helped you learn the most parts? Why?

**Apply:**

6. Which activity (matching or coloring) did you like best? Why?
GOING FURTHER:
- Draw pictures of the heads of a chicken, turkey and duck and label the parts.
- Obtain an adult male and female chicken and compare differences in appearance of feathers, comb and wattles.
- Observe other domesticated breeds of poultry and wild birds and compare differences in their appearance.
- Identify the proper names for young and adult chickens, turkeys, ducks and geese.

REFERENCES
Poultry Science, Ensminger
Minnesota 4-H Animals Science Project Guide

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# PARTS OF A CHICKEN

## POULTRY, LEVEL I

### Activity Sheet 1, Parts of a Chicken

Write in the part name on the matching blank.

<table>
<thead>
<tr>
<th>Tail</th>
<th>Ear</th>
<th>Breast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comb</td>
<td>Eyes</td>
<td>Shank</td>
</tr>
<tr>
<td>Hackle feathers (male)</td>
<td>Tail feathers</td>
<td>Wattles</td>
</tr>
<tr>
<td>or Neck feathers (female)</td>
<td>Flight feathers</td>
<td>Beak</td>
</tr>
<tr>
<td>Earlobe</td>
<td>Thigh</td>
<td>Back (saddle - male)</td>
</tr>
<tr>
<td>Covert Feathers</td>
<td>Leg</td>
<td>Toes</td>
</tr>
<tr>
<td>Wing</td>
<td>Keel bone</td>
<td>Wing</td>
</tr>
</tbody>
</table>
PARTS OF A CHICKEN
POULTRY, LEVEL I
Leader’s Key, Activity Sheet 1, Parts of a Chicken

Key to Chart:

(1) Beak                  (11) Tail
(2) Comb                  (12) Tail feathers
(3) Wattles               (13) Wing
(4) Eyes                  (14) Flight feathers
(5) Earlobe               (15) Covert feathers
(6) Ear                   (16) Thigh
(7) Hackle feathers (male) (17) Leg
     or Neck feathers (female) (18) Hock joint
(8) Breast                (19) Shank
(9) Keel bone             (20) Toes
(10) Back - saddle (male)
     or cushion (female)
Different comb types of chickens

- SINGLE COMB
- V-SHAPED COMB
- PEA COMB
- ROSE COMB
PARTS OF A CHICKEN
POULTRY, LEVEL I
Activity Sheet 2, Color a Rainbow Chicken

Color the parts according to this list.

1. Comb—red  
2. Beak—yellow  
3. Eye—blue  
4. Ear—green  
5. Earlobe—purple  
6. Wattles—red  
7. Neck—yellow  
8. Breast—orange  
9. Thigh—purple  
10. Wing—purple  
11. Hock—red  
12. Shanks—green  
13. Foot and Toes—yellow  
14. Spur—orange  
15. Abdomen—blue  
16. Shoulder—green  
17. Back—red  
18. Tail—yellow
Name That Bird
Poultry, Level I

What Members Will Learn . . .

ABOUT THE PROJECT:
• To identify six species of poultry
• The similarities and differences between species

ABOUT THEMSELVES:
• The importance of their physical senses in life

Materials Needed:
• Pictures of poultry species (chicken, turkey, duck, goose, pheasant, guinea, peafowl, pigeon and quail)
• Cards with species names
• Large sheets of paper
• Magic markers or crayons
• Activity Sheet 3, Name That Bird

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:

Poultry is a term used to define those species of birds that humans have domesticated (tamed and bred) for the purpose of providing eggs, meat and recreation. A species is a group of birds of the same kind or form. The most common species of poultry are chickens, turkeys, ducks and geese which are kept primarily for eggs, meat or show. Other species like the ostrich, emu, guinea, peafowl, pigeon, quail and pheasant primarily serve humans by their beauty, companionship and sport.

What species have you seen? How would you describe them to someone else?

Today, you’ll have the opportunity to identify each of these species of poultry. First, let’s find out how many species you can already identify.

Identifying Species of Poultry
I have nine pictures of different species of poultry. Your job is to match the species card to the correct picture.

Now, let’s match the names on your activity sheets and talk about each of these species.

CHICKENS are the most common species of poultry raised throughout the world. Chickens, like all other birds, have feathers and wings.
Chickens come in many sizes, shapes and colors. What are some colors of chickens that you have seen?

Their feathers may have stripes, spots, patches, solid colors, two colors or a variety of colors, depending on the breed. An adult chicken may weigh as little as 1 1/2 pounds or as much as 18 pounds. Chickens have plump bodies and small heads with sharp beaks. Chickens have several fleshy growths on their heads that most other birds do not. The flaps of loose skin hanging down from the throat are called wattles. On top of the head is a reddish-pink crest, called a comb. The comb and wattles are red because they have a rich blood supply. Earlobes grow on the side of the head. The earlobe color may be red or white, depending on the breed of chicken. Feathers cover most of the body of a chicken, and even the shanks (lower legs) and feet of some birds. Usually the shanks and feet are covered with scales. Roosters have an extra spike or spur sticking out from the rear inner side of the legs. Chickens have claws on their toes, which they use to defend themselves against an enemy, and to dig in the soil for insects and seeds to eat. Even though chickens have wings to fly, their wing muscles are poorly developed, so they can only fly a short distance at a time. Chickens fly mainly to escape enemies and to reach a perch on which to roost at night. Chickens are usually very noisy. They constantly cluck and squawk. The male chicken (rooster) has a distinctive sound of his own, sometimes referred to as crowing. When do you think roosters usually crow? What time of day do roosters do the most crowing?

TURKEYS are large birds that can weigh as much as 50 pounds or more. They are raised primarily for meat production. Have you ever eaten turkey? When?

The head and neck of turkeys are red and featherless. A long, loose piece of skin called a wattle extends from beneath the lower jaw along the neck. At the base of the neck are small, wart-like structures called caruncles. Male turkeys are called toms. If you look closely you will see they have a beard-like tuft of coarse hair hanging from the center of the breast. The color of domestic tom turkeys depends on the variety. Adult female turkeys, called hens, are dull in color and have no beards. They are smaller than the adult male turkeys. Their legs are similar to those of chickens, and are covered with scales. The tom turkey also has spurs on his legs like the male chicken. The vocal sound that we associate with a turkey is the gobbling call which the male makes.

DUCKS are classed as waterfowl and are among the most versatile birds. Ducks are raised for meat and egg production. They are related to geese and swans. They can live under a variety of climatic conditions. Ducks have waterproof feathers and webbed feet (the toes on each foot are connected by flaps of skin). They have a heavy body, short neck, short wings and flat, broad bill. Their bills have a hard horny growth at the tip called a bean. Ducks are known to be very vocal. The voice of the female is a loud, rather flat quack. The voice of male duck makes either a nasal sound or a whistle followed by a grunting sound.
**GEES** are also classed as waterfowl, and are related to ducks and swans. People raise geese for meat and egg production, and as weeders, show birds or farm pets. They have flattened bills; a long neck; water-repellant feathers; long, pointed wings; a short tail; short legs and webbed feet. Scales cover the goose’s legs. Their webbed feet make them good swimmers, but they also adapt well to living on land. Their face areas are feathered. Geese are larger than ducks and smaller than swans. Geese communicate by honking, instead of quacking or whistling. The long wings of wild geese enable them to fly for great distances. They are very graceful in flight and some kinds of geese can fly more than 1,000 miles without stopping to rest. All geese are migratory birds, which mean that they fly north in the spring and south in the fall. Have you ever seen a flock of geese fly in the sky. What direction were they flying? In what kind of formation were they flying?

**PHEASANTS** are generally classed as game birds, since people hunt pheasants for sport and meat. People also seek them for their long tail feathers. They are medium to large in size and are closely related to the domestic chicken. Most pheasants have a short, stout beak and a long tail. Some pheasants have combs and wattles similar to that of chickens. The male pheasants are very colorful with patterns of brightly colored feathers. The females usually have dull-brown and tan-colored feathers with black markings. Pheasants can fly, but only for short distances. They may reach speeds of 40 mph. The male pheasant communicates with cackles, crows, screams and whistles. The call of the hen is limited mostly to clucks and peeps.

**GUINEA FOWL** are close relatives of the pheasant. Their head and neck are bare and a bony ridge or helmet covers the top of the head. The most common guinea, the pearl, has gray feathers with small white spots. Guinea are known to make good watchdogs because of their usefulness in protecting the farm flock from predators by their loud, harsh cries and bad temper. They destroy insects in the garden. They do not scratch and, therefore, are less destructive than chickens. The cry of the female sounds like “buckwheat, buckwheat” or “put-rock, put-rock” and is quite different from the one-syllable shriek of the male.

**PEAFOWL** are mainly ornamental birds (birds pleasing to look at). Peafowl are one of the showiest of all birds because of their great size and beautiful feathers. They are related to the chicken and pheasant family. The most popular bird is the India Blue. Its feathers are colored either blue, white or green, with blue being the most common. The male peafowl is called a peacock and may grow almost as large as a turkey. Its breast feathers are colored metallic greenish-blue with purplish-blue underparts. They have a long train of greenish feathers brilliantly marked with bold spots that look like eyes. These long feathers grow from the back and not from the tail. This train of feathers may measure five times as long as the bird’s body. When the male peacock spreads the feathers on his back, they form into a beautiful fan. In contrast, the female peafowl does not have a train and is more dull in color. Peafowl are regal, proud and desire attention. The males are inclined to be aggressive and not only attack other
fowl and small animals, but also have been known to fight their reflections in mirrors or shiny automobiles. Both the male and female produce a piercing, squawking, powerful cry, especially during the mating season. Peafowl choose to roost in a tall tree or on top of a building.

QUAIL are a type of small game bird that is often hunted for food or sport. Most adult quail are 6 to 8 inches long. The feathers of quail are colored in shades of brown, tan or gray that blend in with the environment of a pasture or woodland, protecting them from enemies by making them hard to see. The voice of a quail sounds like a squawk.

PIGEONS are very versatile birds. They are used for the sport of racing as flyers and performers, for show, for meat production, and in some cases to carry messages. The term pigeon is used to name any bird in the pigeon and dove family. The larger birds are called pigeons and the smaller birds are called doves. Pigeons have a plump body, a small head and short, sturdy legs. Because pigeons have large flight muscles in their breast, they are powerful and can fly at fast speeds. Most pigeons measure from 10 to 15 inches long. However, the smallest of the species grows about 6 inches long and weighs about 1 ounce. The feather colors of pigeons are usually black, blue, brown, white or gray. Pigeons drink in a way that is very unusual from other poultry birds. They stick their beak in the water and suck the liquid through their beak like a straw. Pigeons communicate through cooing sounds.

DIALOGUE FOR CRITICAL THINKING:
Share:
1. How many poultry species could you identify?
2. What was the easiest species to identify? Hardest? Why?
3. What species would you like to raise? Why?

Process:
4. What characteristics help you identify a species? (size, beak or bill, feathers, sounds made, etc.)
5. What are some reasons for raising different poultry species?
6. What characteristics are significant for waterfowl?

Generalize:
7. What physical senses (sight, touch, hearing, smell, taste) help you the most in identifying poultry species? Why?
8. What senses do you use most in your everyday life? Why?

Apply:
9. Which senses do you think will be the most important to you in the future? Why?
GOING FURTHER:
• Read a book or magazine about poultry and share what you learned at the next project meeting.
• Visit a poultry farm or zoo and observe the differences in the species.

REFERENCES:
KSU Poultry Handbook for Small Flocks, Kansas State University, Manhattan, Kansas
Poultry Science, Ensminger
Raising Chickens for 4-H, Purdue University Cooperative Extension Service, West Lafayette, Indiana

Author:
Cynthia R. Siemens, Extension Assistant, Kansas State University; James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

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NAME THAT BIRD
POULTRY, LEVEL I
Activity Sheet 3, Name That Bird

Draw a line from the name of the poultry species to the correct picture.

Quail
Duck
Chicken
Pheasant
Turkey
Goose
Guinea Fowl
Pigeon
Peafowl
NAME THAT BIRD
POULTRY, LEVEL I
Leader’s Key, Activity Sheet 3, Name That Bird

Draw a line from the name of the poultry species to the correct picture.
Beginning to Set Goals in Your Poultry Project

Poultry, Level I

What Members Will Learn . . .

ABOUT THE PROJECT:
• How to set project goals

ABOUT THEMSELVES:
• The importance of setting goals

Materials Needed:
• Chalkboard or flip chart
• Poultry Member Guide and Annual Report (MG-26)
• Member Handout 2, Learning Topics

ACTIVITY TIME NEEDED: 30 MINUTES

ACTIVITY:

Each year you will set several goals to accomplish during the project year. Goals help you get where you want to go.

If this is your first year, you might want to have just one goal, to select your project bird. Remember that before you select a bird, you must decide the purpose of the bird (meat, layer, show or dual-purpose).

List one or two goals (MAP Step 1) on page 2 for this project year.

Breaking a goal into steps (MAP Step 2) helps you better understand the action needed to make that goal a reality. Some goals have many steps, some have a few.

With each step you need to set a deadline (MAP Step 3). Deadlines are when you expect to have that step of your goal done. As you meet the deadline you set for each step, you need to use an energizer (MAP Step 4). Energizers encourage you to move toward your goals by offering a small reward for meeting your deadline.

Now complete MAP Steps 6 and 7. You have set your goals for Year 1 of your poultry project.

Leader Notes

Put participants into groups of three or four. Mix new project members with youth who have had some experience with poultry or other animal projects. Hand out Member Guide and Annual Report (MG-26) plus Member Handout 2, Learning Topics. Let them help each other decide what their goals for the year will be.

Allow time for them to share their goals with a project friend and sign each other’s MAP Worksheets.
DIALOGUE FOR CRITICAL THINKING:
Share:
1. What is your first goal for the project year?
2. What goal do you like best? Why?

Process:
3. Why are these goals important?
4. Why is it important to set goals?

Generalize:
5. What are the advantages of working in a group when setting goals?

Apply:
6. What other groups have you worked in where you needed to set goals to help you make decisions?

GOING FURTHER:
• Use the goal-setting process to set group goals

REFERENCES:
Lessons on:
• What Bird Will I Raise
• Poultry Breeds
• Catching and Handling Poultry

Author:
James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

Reviewed by:
Poultry Design Team

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20-Poultry, Level I
BEGINNING TO SET GOALS IN YOUR POULTRY PROJECT
POULTRY, LEVEL I
Member Handout 2, Learning Topics

Place a check mark next to five of the most interesting topics you would like to learn about in your poultry project.

_____ Parts of a Chicken
_____ Name That Bird
_____ Common Poultry Terms of Different Species
_____ Poultry Breeds
_____ Breeds of Poultry for Projects and Shows
_____ What Bird Will I Raise?
_____ Nutritional Needs and Problems in Poultry
_____ Is Your Bird Sick?
_____ Catching and Handling Poultry
_____ Washing That Bird
_____ Why Do We Raise Poultry?

Think Back:
Please write one or two things you have learned about poultry so far. What is something you have learned about yourself while studying poultry?

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________
Common Poultry Terms for Different Species

About the Project:
- Five common chicken terms
- Five common turkey, duck and goose terms
- Five general terms of various poultry species

About Themselves:
- Their feelings about using cards and matching to learn
- How they feel about their ability to identify parts of live things

Materials Needed:
- Pictures or live birds
- Note cards with poultry terms
- Member Handout 3, Common Poultry Terms

Activity Time Needed: 45 Minutes

Activity:
Knowing the correct poultry terms is very important when involved in poultry projects. The American Standard of Perfection lists the terms used to describe the external (or outside) physical characteristics of poultry. Knowing these terms is essential to the identification and judging of exhibition and production types of poultry, selection and preparing birds for show, giving demonstrations, understanding how judges judge poultry, and just talking about poultry with friends.

Chicken Terms
Approximately 30 terms are used to describe the different external parts of a chicken. The major terms are shown on the illustration.

The beak (a) on a chicken is pointed because the chicken is a grain eater. The comb (b) is used to identify breeds and varieties. Common comb types are single, rose and pea. The earlobes (c) are patches of smooth skin located below the ears of the bird. Earlobe color is either white or red and is used for breed identification. The wattles (d) are fleshy appendages attached to the lower edge of the head. The feathers on the neck of the chicken are hackles (e) on the male and neck (e) feathers on the female. The main tail (f) feathers arise from the tail head of both male and female chickens. The sickle (g) feathers are the long flowing feathers on the male birds. The saddle (h) feathers are those that flow from the back down each side of the bird. The hock (i) is the joint between the drumstick and the leg or Shank (j). The spur (k) is a bony projection arising from the inside of the bird’s legs. The spur is prominent in the male and is used for fighting.

Leader Notes
Use the Standard of Perfection if you need terms in addition to those in this lesson.
TURKEY TERMS
The snood (a) of the turkey is similar to the comb of a chicken. It is larger in the tom than hen. It becomes enlarged during the mating ritual by the tom. Sometimes, it becomes injured when toms fight, which allows disease organisms to enter the bird’s body. The caruncle (b) is reddish, fleshy material on the naked portions of the head, face, and neck of the turkey and Muscovy duck. It is similar to the wattles on the chicken. The beard (c) is a small tuft of long, coarse, black hairs projecting from the upper part of the breast of a tom turkey.

DUCK TERMS
The bill (a) is the horny formation projecting from the head of waterfowl. It consists of the upper and lower mandibles which form the forward mouth parts. The bean (b) is a raised, hard, bean-shaped projection on the tip of the bill of waterfowl. Sometimes, the bean is removed from ducks to prevent them from seriously harming or killing each other.

GOOSE TERMS
The head of a goose is different from the head of a duck because of the presence of a dewlap (b). This is a loose fold of skin under the rear of the bill (a) that extends along the throat area. Its absence constitutes a disqualification in some breeds of geese such as the African and Toulouse.

GENERAL TERMS
Proper terms for common species of domesticated poultry.

<table>
<thead>
<tr>
<th>Species</th>
<th>Young of either sex</th>
<th>Mature Male</th>
<th>Mature Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>Chick</td>
<td>Cockerel*</td>
<td>Pullet*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cock</td>
<td>Hen</td>
</tr>
<tr>
<td>Duck</td>
<td>Duckling</td>
<td>Drake</td>
<td>Duck</td>
</tr>
<tr>
<td>Goose</td>
<td>Gosling</td>
<td>Gander</td>
<td>Goose</td>
</tr>
<tr>
<td>Guinea</td>
<td>Keet</td>
<td>Cock</td>
<td>Hen</td>
</tr>
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<td>Peafowl</td>
<td>Chick</td>
<td>Peacock</td>
<td>Peahen</td>
</tr>
<tr>
<td>Turkey</td>
<td>Poult</td>
<td>Tom</td>
<td>Hen</td>
</tr>
</tbody>
</table>

* Terms for male and female chickens, respectively, that are less than 1 year of age.

DIALOGUE FOR CRITICAL THINKING:
Share:
1. What terms are easy to remember? Why?
2. What term was the most difficult? Why?
Process:
3. What part of a bird do you find the most unusual or different? Why?

4. What was significant about the terms used for young birds or names for different sexes of a species?

Generalize:
5. What other experiences have you had where you had to learn parts or terms?

6. Which learning style do you prefer (matching or flash cards)? Why?

Apply:
7. How will it help you in the future to know poultry parts?

8. Why do you think it is important to know parts of birds, animals and other items?

GOING FURTHER:
• Attend a poultry show and identify parts on all species.
• Share poultry terms with your class at school.

REFERENCES
Poultry Production Manual, A.W. Adams, Department of Animal Sciences and Industry, Kansas State University

Author:
Cynthia R. Siemens, Extension Assistant, Kansas State University; James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

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COMMON POULTRY TERMS OF DIFFERENT SPECIES
POULTRY, LEVEL I
Member Handout 3, Common Poultry Terms

Turkey
a. Snood
b. Caruncle
c. Beard (male)

Duck
a. Bill
b. Bean

Goose
a. Bill
b. Dewlap

Chicken
a. Beak
b. Comb
c. Earlobe
d. Wattle
e. Hackle (male)/Neck (female)
f. Main tail feathers
g. Sickle feathers (male)
h. Saddle feathers
i. Hock
j. Spur
k. Shank
What Members Will Learn . . .

ABOUT THE PROJECT:
- Ten breeds or varieties of poultry
- Differences between breed, variety, type and strain
- Purpose of 10 poultry breeds (meat, eggs, exhibition)

ABOUT THEMSELVES:
- The importance of different poultry breeds to people

Materials Needed:
- Color pictures or diagrams of different breeds of poultry
- Cards with names of poultry breeds
- *American Standard of Perfection* book (use to obtain breed descriptions)
- Activity Sheet 4, Poultry Breed Match
- Leader’s Key, Activity Sheet 4, Poultry Breed Match

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:
If you look at chickens, ducks or any other birds, do they all look alike? Of course not. How are they different? You will notice that they are different sizes, shapes, colors and have other physical features that make each one unique.

When we talk about poultry, we use several terms to describe what kind they are such as breed, variety and strain. Do any of you have an idea of what these terms describe?

The term **breed** is used to describe a group of birds which are related by breeding. All birds of the same breed possess the same distinctive shape, general weight and other physical traits such as comb type, skin and feather colors.

**Variety** is a subdivision of a breed. A variety is identified by either feather color (black, white, red or brown), feather pattern, or comb type (single comb, rose comb, etc.). A breed may have many varieties.

The term **strain** is used to describe a specific group within a breed or variety which has distinctive characteristics. A strain is usually developed by a breeder who does not allow any outside bloodlines to enter into his or her flock for a number of years. The strain is usually named after the breeder who developed it.
The book I’m showing you is called *The American Standard of Perfection*, which lists over 300 breeds and varieties of chickens, ducks, geese and turkeys. This book is published by the American Poultry Association, Inc.

Now, let’s take a look at the different breeds and see if you can match the name on the card with the picture as I describe them to you.

People who raise poultry usually choose a particular breed, variety or strain for a specific purpose, such as exhibition, meat production or egg production.

Exhibition birds are raised for competition in various shows. They may be either normal or miniature in size. The miniature chickens are called bantams.

Egg production breeds and varieties are those that produce a large number of eggs. Most of the egg-laying hens are white feathered. They are usually small in size, so they don’t require as much feed as the larger breeds.

Meat production or broiler production breeds and varieties are usually larger in size and grow rapidly, but lay fewer eggs than egg production types.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**
1. How many poultry breeds do you know?

2. What breed might you raise? Why?

**Process:**
3. What are some characteristics that help determine breed or variety?

4. What are the main functions of different breeds or varieties? (exhibition, egg production, meat production or pleasure/recreation)

**Generalize:**
5. How do poultry breeds differ between species (chickens, ducks, geese, etc.)?

6. What are significant differences between breeds of other animals?

7. What is the importance of different poultry breeds to people?

**Apply:**
8. How will your knowledge of poultry breeds help you in the future?
GOING FURTHER:
• Make a poster of different breeds and varieties of poultry.
• Visit a hatchery or poultry farm to see what different breeds or varieties they raise.

REFERENCES:
Poultry Science, Ensminger
The Standard of Perfection, American Poultry Association, 26363 South Tucker Road, Estacada, Oregon 97023

Author:
Cynthia R. Siemens, Extension Assistant, Kansas State University; James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

Reviewed by:
Albert W. Adams, Professor Emeritus, Poultry Sciences, Kansas State University; R. Scott Beyer, Extension Specialist, Poultry Sciences, Kansas State University; Poultry Design Team
POULTRY BREEDS
POULTRY, LEVEL I
Activity Sheet 4, Poultry Breed Match

Draw a line from the breed name to the correct picture.

**Chickens**
Rhode Island Red
Barred Plymouth Rock
Sebright
Cornish
Leghorn
Polish
Houdan

**Geese**
Embden
Toulouse

**Ducks**
Muscovy
Pekin
Rouen
POULTRY BREEDS
POULTRY, LEVEL I
Leader’s Key, Activity Sheet 4, Poultry Breed Match

Chickens
- Rhode Island Red
- Barred Plymouth Rock
- Sebright
- Cornish
- Leghorn
- Polish
- Houdan

Geese
- Embden
- Toulouse

Ducks
- Muscovy
- Pekin
- Rouen
Breeds of Poultry for Project and Show

Poultry, Level I

What Members Will Learn . . .

ABOUT THE PROJECT:
- To identify the differences between standard breeds, strain crosses and crossbreeds
- To identify the main function of five breeds, varieties, strains or types

ABOUT THEMSELVES:
- Decisions that need to be made in choosing the type of project they wish to have
- Skills they do well

Materials Needed:
- *American Standard of Perfection* book
- Pictures or poultry magazines to show various breeds
- Poultry catalog
- Index cards with breed, variety and purpose of breed or variety
- Member Handout 4, Breed Purposes
- Activity Sheet 5, Breed Name Word Find
- Leader’s Key, Activity Sheet 5, Breed Name Word Find

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:

When you go shopping for new clothes or shoes, what are some things you need to know before you start? Before you buy a new pair of shoes or clothing, you usually have an idea of why you are going to wear them. You wouldn’t go out and buy a dress, new suit or dress shoes to wear for playing sports or doing chores. Some clothing and shoes are not appropriate for every occasion.

It’s the same idea when you select your poultry project birds. You need to know the various breeds and varieties of poultry and for what purpose you want to raise birds. Do you want to raise birds for egg and/or meat production, or for exhibition or show?

Today, we’ll learn about the differences between standard breeds, strain crosses, crossbreeds and bantam chickens, and the different breeds of ducks, geese and turkeys, so you can make good decisions when you choose what poultry you will have for your project.

1. Let’s talk about standard breeds first. Does anyone know what a standard breed is? **Standard breeds** or pure breeds of chickens are those breeds and varieties that have been recognized for specific characteristics

Leader Notes

Ask members what other project they plan for before they select or buy their materials needed. What did they do or think about?
for many generations and, when mated together, produce offspring with those same characteristics. They can be used for egg production, meat production or exhibition projects.

Standard breed chickens may be exhibited as a single young or old bird of either sex. Exhibition-type stocks are available from all recognized breeds and varieties of poultry. These classes are usually designated as either large or small (bantam).

2. **Strain Crosses** are also called inbreeds or hybrids. In chickens, they are usually White Leghorns. These birds have been selected for maximum egg production and small body size, and would be a good selection if you are going to raise chickens primarily for egg production. When you select a strain cross of Leghorns, they will usually be designated by the breeder’s trade name such as DeKalb, Hyline, Babcock, etc. You should not use these birds for a meat production project because of their small body size.

3. Does anybody have an idea what a crossbreed is? A **crossbreed** results from the crossing of two different breeds or varieties. Crossbreeds are raised for both egg and meat production. Some examples of crossbreeds for an egg production project would be Austra-White, California White, Sex-Links and other similar crosses. If you are wanting to raise them for meat production, you should choose a crossbreed such as Cornish-Rock or Rock-Cornish.

4. If you want to raise and exhibit **bantams** (chickens of smaller size), you should select pure breeds rather than strain or crossbreeds. Bantams are available in most standard breeds of fowl. You can select from many other breeds such as Old English Game, Frizzle, Rosecomb, Sebright, Houdan and Polish. When you exhibit bantams at a show, enter them as a single bird of either sex in either the standard-bred bantam young or old classes. Most shows do not have a crossbred bantam class.

If you plan to raise your chickens for meat and egg production, you should look for **dual-purpose breeds** that have qualities favorable for both egg and meat production. Some breeds that fit in this category are the Rhode Island Red, New Hampshire and Plymouth Rock. If you would choose to exhibit these breeds at a fair, you would show a group of three pullets or hens.

If you are planning to raise chickens for meat production only, you would choose a meat-type breed, such as the White Plymouth Rock and White Cornish. In this class for exhibition, you would show a group of three pullets or cockerels. Can you identify some standard breeds in the pictures I have here?

Now that we have talked about the various breeds and varieties of chickens, let’s move on to ducks and geese. Most shows do not have a crossbred waterfowl class, so you should select a purebreed for your project. You would usually enter one bird of either sex.
Common breeds of geese are African, American Buff, Canada, Chinese, Egyptian, Embden, Pilgrim, Pomeranian, Sebastopol and Toulouse.

Common breeds of ducks are Alyesbury, Buff, Call, Campbell, Cayuga, Crested, East India, Mallard, Muscovy, Pekin, Runner, Rouen and Swedish.

If you decide to raise turkeys, you need to select a variety for either a meat production project or for show. If you choose to raise turkeys for meat production, you can select a commercial strain cross of Broad Whites, such as Nickolas, Cuddy, BUTA and Hybrid. White-feathered varieties are easier to prepare for eating than dark-feathered varieties.

If you want to have a Turkey project that is more for show purposes, you should select a variety that has a slower growth rate and poorer body conformation. The Beltsville Small White, Black, Bourbon Red, Bronze, Narragansett, Royal Palm, Slate and White Holland are more suitable for show purposes.

Hopefully, you now have an idea of what breed of poultry you are going to select for your project.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**
1. What breed or variety of poultry do you like? Why?
2. Which breeds are the easiest to identify? Why?

**Process:**
3. What are the three purposes for raising poultry?
4. Why would you **not** select an egg-type chicken for meat production?
5. Why are white-feathered turkey varieties better for meat production?

**Generalize:**
6. What other animals are bred for specific purposes?
7. Why is it important to know the purpose or reason for what you do?
8. What types of things do you do well?

**Apply:**
9. How do you think you will use your good skills in the future?

At the end of the lesson, have members divide into teams and give them index cards with breed names. Play a matching game with the pictures.
GOING FURTHER:
• Make a poster about the different breeds and varieties of poultry and share with members at the next meeting or classmates at school.
• Visit a poultry hatchery.
• Attend a poultry exhibition and identify what breeds and varieties are most popular.
• Read a book about poultry and share with members at the next meeting or at school.

REFERENCES:
The Bantam Standard, American Bantam Association, Box 610, N Amherst, Maine 01059
The Standard of Perfection, American Poultry Association, 26363 S Tucker Road, Estacada, Oregon 97023

Author:
Cynthia R. Siemens, Extension Assistant, Kansas State University; James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

Reviewed by:
Albert W. Adams, Professor Emeritus, Poultry Sciences, Kansas State University; R. Scott Beyer, Extension Specialist, Poultry Sciences, Kansas State University; Poultry Design Team
# BREEDS OF POULTRY FOR PROJECTS AND SHOWS

**POULTRY, LEVEL I**

Member Handout 4, Breed Purposes

<table>
<thead>
<tr>
<th>Species</th>
<th>Purpose</th>
<th>Breed, variety, crossbreed, or strain cross most suitable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chickens</td>
<td>Egg Production</td>
<td>Leghorn (white eggs)&lt;br&gt;Plymouth Rock (brown eggs)&lt;br&gt;Rhode Island Red (brown eggs)&lt;br&gt;New Hampshire (brown eggs)&lt;br&gt;Sex Links (brown eggs)</td>
</tr>
<tr>
<td></td>
<td>Meat Production</td>
<td>Cornish-Rock&lt;br&gt;Rock-Cornish</td>
</tr>
<tr>
<td></td>
<td>Dual-Purpose</td>
<td>Plymouth Rock&lt;br&gt;Rhode Island Red&lt;br&gt;New Hampshire Red</td>
</tr>
<tr>
<td></td>
<td>Exhibition</td>
<td>Bantams:&lt;br&gt;Houdan&lt;br&gt;Polish&lt;br&gt;Sebright</td>
</tr>
<tr>
<td>Ducks</td>
<td>Meat Production</td>
<td>Pekin&lt;br&gt;Rouen&lt;br&gt;Muscovy</td>
</tr>
<tr>
<td></td>
<td>Egg Production</td>
<td>Khaki Campbell&lt;br&gt;Indian Runner</td>
</tr>
<tr>
<td>Geese</td>
<td>Egg and Meat, Exhibition</td>
<td>Embden&lt;br&gt;Toulouse&lt;br&gt;Buff</td>
</tr>
<tr>
<td>Turkeys</td>
<td>Meat Production</td>
<td>Broad White</td>
</tr>
<tr>
<td></td>
<td>Exhibition</td>
<td>Broad Breasted&lt;br&gt;Bronze&lt;br&gt;Bourbon Red&lt;br&gt;Narragansett</td>
</tr>
</tbody>
</table>
BREEDS OF POULTRY FOR PROJECTS AND SHOWS
POULTRY, LEVEL I
Activity Sheet 5, Breed Name Word Find

Find and circle the breed names in the letter diagram below.

<table>
<thead>
<tr>
<th>Cornish</th>
<th>Rhode Island Red</th>
<th>Rouen</th>
</tr>
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<td>Bantam</td>
<td>Muscovy</td>
<td>Leghorn</td>
</tr>
<tr>
<td>Houdan</td>
<td>Khaki Campbell</td>
<td>New Hampshire</td>
</tr>
<tr>
<td>Wyandotte</td>
<td>Toulouse</td>
<td>Embden</td>
</tr>
<tr>
<td>Pekin</td>
<td>Broad White</td>
<td></td>
</tr>
</tbody>
</table>

Think Back:
What do you remember most about the birds you have studied? Why?
BREEDS OF POULTRY FOR PROJECTS AND SHOWS
POULTRY, LEVEL I
Leader’s Key, Activity Sheet 5, Breed Name Word Find

Find and circle the breed names in the letter diagram below.

<table>
<thead>
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<td></td>
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</tbody>
</table>

```
KA X Y M US CO V Y RRR
HO U D A N P N L A B O H
A M I Z B U F E L G T U O
K G A N A E E W X R O E D
IC ORNI SH I I U NE
C Y G S T S H A O P L Q I
A W W X A C B M N M O L S
M R T G M E E P A R U E L
PE K I N Y J S W F S G A
BB R O A D W H I T E H N
E F Q C V U A I U K L O D
L E M B D E N R A Y B R R
L I J L O N R E W S A N E
W Y A N D O T T E U A Q D
```
What Bird Will I Raise?

*Poultry, Level I*

**What Members Will Learn . . .**

**ABOUT THE PROJECT:**
- Poultry species or breeds available in your area
- Types of birds that can be raised and/or exhibited in your area or county
- Factors to use in selecting a species or breed

**ABOUT THEMSELVES:**
- How they feel about using a decision-making process
- Their feelings about making choices

**Materials Needed:**
- Poultry Member Guide and Annual Report (MG-26) for each member (appears at end of Introduction)
- Chalkboard or flip chart
- Chalk or markers

**ACTIVITY TIME NEEDED:** 60 MINUTES

**ACTIVITY:**

Today, we are going to review some of the previous lessons, so you can decide what species or breed of poultry would best fit your family situation. Depending on where you live, you may be able to raise a lot of chicks or only keep a few for fun or show. You will also need to determine if you plan to raise birds for meat, eggs or exhibition.

Look at the pictures of the various breeds in your leader’s *Standard of Perfection for Poultry* as you talk and discuss the major differences between breeds.

**POULTRY TYPES**

*Market poultry* is a production and marketing portion of the project that is well suited for younger (Level I) members using broilers, roasters, capons or turkeys. The objective with these birds is to properly grow and process meat-type poultry for home consumption or sale.

Considerations:
1. Start with any number of chicks or poults of either sex for broilers, roasters and turkeys, or cockerels for capons.
2. Care for the flock using accepted management and feeding practices.
3. Keep records of income and expenses.
4. Process the birds for eating at home or to sell.

**Leader Notes**

This lesson should be used only for members who have the opportunity to actually raise birds. The ultimate objective of the poultry project is not to make poultry producers out of each member, but rather to use poultry as a vehicle to enhance each member’s development. It is also important to prepare youth to be more knowledgeable consumers of poultry products by understanding poultry production. As a project leader, you can play an important role by helping members to: (1) select the species, breed or type that will be best for their conditions and interests, and (2) plan their project lessons in a manner that will allow them to enjoy the activities, increase their knowledge and realize a sense of achievement.

Be prepared to explain that a capon is a castrated male chicken.
Egg production and marketing is best suited for Level II members or older using egg-type chickens. The objectives for these birds is to manage them for the production of high-quality eggs for eating at home or to sell.

Considerations:
1. Start by growing pullet chicks to maturity or by purchasing (ready-to-lay) pullets.
2. Care for the flock using accepted management and feeding practices.
3. Keep production and expense records.
4. Process and package eggs for home consumption or sale.
5. Requires housing for entire year.

Exhibition birds are best suited for Level III and IV members who prefer to care for birds in preparation for competitive showing only.

Considerations:
1. Start with any number of exhibition-type, standard-bred (purebred) chickens, turkeys, ducks or geese of either sex.
2. Care for birds using accepted management and feeding practices.
3. Keep appropriate records.
4. Select birds and properly prepare them for show.

Pigeons may be raised for meat, racing or exhibition. They adapt themselves to living under a variety of conditions. These birds are easy to raise, fairly inexpensive to keep and require very little space. This is one species that is seldom restricted by zoning regulations.

Considerations:
1. Own and care for a minimum of one pair of birds.
2. Maintain appropriate records.
3. Plan to learn how to exhibit and/or race the birds.

After you have selected two or three breeds that you like, ask your project leader to review your choices with you and your parents before making your final decision.

**DIALOGUE FOR CRITICAL THINKING:**
**Share:**
1. How many species of poultry did you talk about?
2. How many breeds did you list?

**Process:**
3. What kind of poultry is best for your situation? Why?
Generalize:
4. How did you remember all the information you had to think about before choosing a species or breed?

5. What other times have you had to think about a lot of things before making a decision?

Apply:
6. How will you make decisions in the future?

GOING FURTHER:
• Discuss breeds according to whether they are for egg or meat production.
• Learn more about meat-market birds like ducks, geese, turkeys or game birds.

REFERENCES:
The Standard of Perfection, American Poultry Association, 26363 S Tucker Road, Estacada, Oregon 97023

Author:
Cynthia R. Siemens, Extension Assistant, Kansas State University; James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

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Nutritional Needs and Problems in Poultry

Poultry, Level I

What Members Will Learn . . .

ABOUT THE PROJECT:
- The six basic nutrients and the ingredients that supply them
- The symptoms of selected nutritional deficiencies in poultry
- The causes of nutritional deficiencies

ABOUT THEMSELVES:
- Their basic nutrient needs
- The importance of eating a well-balanced diet

Materials Needed:
- Six 4 × 10-inch poster cards (nutrient cards—labeled as Water, Carbohydrates, Fats, Proteins, Minerals and Vitamins)
- One felt-tip marker
- Activity Sheet 6, Nutrient Puzzle
- Leader’s Key, Activity Sheet 6, Nutrient Puzzle
- Pencils

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:
The proper kinds of food are important to a bird’s survival and health. The 4-H poultry project member must know which nutrients are needed for the bird’s health, egg production, growth or fattening.

What is a nutrient? A nutrient is a chemical needed for life. Food contains nutrients. There are six basic nutrients for poultry. Some are needed in large amounts, while others are needed only in small amounts. Each nutrient has a different purpose for the body.

These nutrients must be included in a poultry ration to have a balanced ration.

1. **Proteins** are the building blocks of the body. They are needed to maintain health, for growth, reproduction, work and egg production.

   Proteins are made of chemicals called amino acids. Amino acids contain nitrogen, carbon, hydrogen, oxygen and sometimes sulfur. When food is digested, protein is broken down into different amino acids which are carried to parts of the body in the blood. The chick requires rations which will supply 10 important amino acids.

   Protein may come from either plant or animal sources.

<table>
<thead>
<tr>
<th>Leader Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have members list what they feel are the six basic nutrients for poultry. Check those listed against the definition.</td>
</tr>
<tr>
<td>Ask members to name a nutrient. Ask members to list or mention a basic function of each nutrient and discuss it before giving correct information.</td>
</tr>
</tbody>
</table>

45-Poultry, Level I
2. **Carbohydrates** are the bird’s major source of energy. Energy is necessary to maintain body temperature and for activity. When carbohydrates are not used by the body, they are stored in the body as fat.

The carbohydrates that are digestible by poultry are sugars and starches. The main source of these carbohydrates is grains.

3. **Fat** is also an energy source, but is only needed in small amounts because it is a very concentrated form of energy. Fat can be stored in the body for later use.

4. **Minerals** are needed in small amounts. They are needed for the growth and health of bones and for many life processes. The important minerals in poultry rations are calcium, phosphorus, magnesium, manganese, zinc, iron, copper, iodine, sodium, chlorine, potassium, sulfur, molybdenum and selenium.

5. **Vitamins** help such body functions as vision, blood clotting and bone development.

Some vitamins dissolve in the presence of fat. Some vitamins dissolve in the presence of water.

6. **Water** is the nutrient required in the greatest amount. Water cleans the body and regulates the body temperature. It carries other nutrients through the body and carries wastes out of the body. Of the six nutrients, water makes up the greatest proportion of a bird and the egg.

Usually, a chicken will drink about twice as much water by weight as food they eat. Age, body weight, production, weather and type of ration will affect how much water birds will drink. Water is found in the feed as moisture, but an additional supply of fresh water must be provided.

Check your knowledge about the poultry animal nutrients with the crossword puzzle.

Not enough feed, water or a deficiency of a nutrient can lead to problems. Here are some common ones and how to prevent them.

**Too little feed** may cause growing birds to lose weight and egg layers to stop laying. Death could result if birds do not have feed for several days.

With **too little protein**, birds will grow more slowly, start pecking each other, pull and eat their feathers, and may develop leg problems. Layers produce fewer and smaller eggs. Some hens may stop laying completely.
Not enough water causes birds to stop eating, lose weight and dehydrate. Layers will stop laying and lose their feathers. Without water, birds will dehydrate and die sooner than when feed is lacking.

Mineral Deficiency—a deficiency of calcium will result in thin eggshells, soft bones (rickets) and abnormal walking.

Vitamin Deficiency—a deficiency of Vitamin A in chicks may cause depressed growth, weakness and loss of coordination. If birds do not receive enough Vitamin D, they will develop leg problems, poor growth, and poor feathering.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**
1. How many of the six essential nutrients can you name?
2. Which nutrient is easiest to remember? Why?

**Process:**
3. Which nutrient is needed most? Why?
4. Which nutrient, when missing, causes the least problems? Why?

**Generalize:**
5. How important are these nutrients to human diets?
6. Which nutrients are needed most by people? Why?

**Apply:**
7. How will you use this information to improve your diet?

**GOING FURTHER:**
- Learn protein requirements for varying ages and types of poultry.
- Visit a feed store and compare nutrients available in different feeds.
- Conduct a research project on poultry by feeding one group more nutrients than the other.
- Give a presentation on various nutrient deficiency effects in poultry.
REFERENCES:
Poultry Science, Ensminger

Author:
Cynthia R. Siemens, Extension Assistant, Kansas State University; James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

Reviewed by:
Albert W. Adams, Professor Emeritus, Poultry Sciences, Kansas State University; R. Scott Beyer, Extension Specialist, Poultry Sciences, Kansas State University; Poultry Design Team
NUTRITIONAL NEEDS AND PROBLEMS IN POULTRY
POULTRY, LEVEL I
Activity Sheet 6, Nutrient Puzzle

Across:
2. Nutrient required for muscle growth
4. Nutrient required in the greatest amount
5. Examples are calcium, phosphorus and iron
6. An energy source only needed in small amounts

Down:
1. The major energy source nutrient
3. A compound that aids in the support of life
7. Only minute amounts are required
NUTRITIONAL NEEDS AND PROBLEMS IN POULTRY
POULTRY, LEVEL I
Leader’s Key, Activity Sheet 6, Nutrient Puzzle

Across:

2. Nutrient required for muscle growth
4. Nutrient required in the greatest amount
5. Examples are calcium, phosphorus and iron
6. An energy source only needed in small amounts

Down:

1. The major energy source nutrient
3. A compound that aids in the support of life
7. Only minute amounts are required

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Recognizing signs of illness in a bird sounds easy, but it can be difficult. Birds tend to mask their symptoms until they are very ill. This may help them survive in the wild, as sick birds may attract predators and are usually driven out by other members of the flocks. By the time the bird actually behaves sick, it may be near death, making treatment difficult. Because diseases can spread very quickly, it is important to recognize problems in a flock early, before they get out of control.

A healthy bird has shiny, tight feathers, and a strong beak and claws. The eyes and nostrils are free of discharge. The feathers around the vent are clean. The breast muscles are full, and the keel bone can barely be felt. A healthy bird spends much of its day foraging for food, and likes to stay close to the flock. Normal bird droppings are green and firm, with a white cap.

Signs of illness include weight loss, lower egg production and lower feed intake. Other signs often include coughing, diarrhea and fever. A sick bird may isolate itself from the rest of the flock and stand with its feathers ruffled and its neck hunched up.

If you suspect your birds have an illness, contact your local veterinarian and K-State Research and Extension poultry specialist for assistance.
Look at the bird droppings. Are any of them different than described above?

Close your eyes and listen quietly to the flock. How would you describe normal flock sounds?

Choose one bird from the flock and pick it up if possible. Carefully examine its feathers, eyes, nostrils, vent and breast muscles. Does it appear healthy or not?

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**
1. What was the most unusual or interesting thing you saw while watching the birds?
2. What sounds did you hear while listening to the flock with your eyes closed?

**Process:**
3. What are some signs of a healthy bird?
4. What are signs that a bird may be sick?

**Generalize:**
5. What things do you see that indicate when other animals do not feel well?
6. What warning signs do you see around your home or while riding in a car that indicate possible danger?

**Apply:**
7. How will learning to detect signs of illness or danger help you be safe and healthy?

**GOING FURTHER:**
- Ask a veterinarian to visit with you about bird health.
- Ask a medical doctor to speak to your group about observing signs of illness.
- Share with your classmates at school what you learned.
IS YOUR BIRD SICK?
POULTRY, LEVEL I
Activity Sheet 7, Flock Observation Sheet

<table>
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<tr>
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Think Back:
What can you do to keep birds healthy? Are certain types of birds easier to keep healthy? Why or why not?

__________________________________________________

__________________________________________________

__________________________________________________
Catching and Handling Poultry
Poultry, Level I

What Members Will Learn . . .

ABOUT THE PROJECT:
• To catch a bird in a cage or coop, remove it, and then return it
• To hold a bird to examine for judging or culling

ABOUT THEMSELVES:
• The importance of friendships

Materials needed:
• Table and cage
• Live bird
• Wood shavings or shredded paper
• Paper or plastic to cover table

ACTIVITY TIME NEEDED: 30 MINUTES

ACTIVITY:

It is necessary to catch and handle birds when selecting, judging and at various times in the management of the flock. Proper catching and handling methods can prevent injury and discomfort to the birds and the persons doing the handling. By using proper procedures, members can show skills they have learned in working with poultry.

Removal of bird from a cage
Open the cage door. Reach across the bird’s back; grasp the far wings; turn the bird so it faces the cage door. Slide second hand beneath the bird’s body, placing one or more fingers between bird’s legs and grasping them so that the bird, when lifted, can be balanced on the palm of that hand. Place your first hand on the bird’s back. Remove the bird from the cage head first. Come to attention and watch the judge for further direction.

Placing bird in cage
Hold the bird in the basic hand position, open the cage door, turn the bird, put it into the cage head first, place it gently on the cage floor and close the cage door.

Passing bird to another person
The person receiving the bird should place one hand on the back of the bird and slide the other hand under the breast of the bird as the bird is passed. Always pass the bird head first.

Leader Notes

This would be an easy activity to simply demonstrate to the members and have them practice the various steps. Another method which provides greater opportunities to develop life skills as well as catching and handling skills is outlined below. You’ll find that members will have additional enthusiasm and interest as you give them the opportunity to learn by doing before being told or shown how. This is sometimes referred to as a skillathon. Consider the following two skillation situations:

SITUATION #1: The poultry showmanship judge has asked you to remove your bird from the cage. YOUR TASK: Demonstrate how you would remove the bird while the judge looks on.
SITUATION #2: The judge asks you to pass your bird to the person next to you. YOUR TASK: Demonstrate how you would safely pass the bird.
Catching a small group of birds
First, you must drive birds into a corner or small area. This can be done by using portable wire panels that have been hinged together in a series of three or more so they can be folded or expanded and still remain standing. Each panel should be about 2 feet wide by 3 or 4 feet high. Stretch the folding panels across the corner of the larger pen so there is just enough room for the birds to stand. Make sure the panels will not collapse from the weight of the birds pushing against the sides. After the birds have been driven into the smaller pen, work as fast as you can to catch the birds by grabbing them from behind by the legs and handing them over the fence to someone to put into a crate. To prevent smothering, be careful to not let the birds pile up for more than a minute.

Catching single birds from a flock
Make a catching hook from stiff wire. The wire should be about 4 feet long with a handle on one end and the other end bent back on itself to form an S-shaped hook. The open end of the hook should be wide enough to allow the shank of the bird to slip through and the bottom flared just enough to allow the foot to be held. Gently pull the open end of the hook over the shank of the chicken’s leg, drawing back on the hook when the shank is caught. Pull the bird toward you, grab both legs in one hand and take the foot from the hook.

DIALOGUE FOR CRITICAL THINKING:
Share:
1. Which methods of catching and handling birds have you used?
2. Which methods do you prefer? Why?

Process:
3. What are two methods of catching a bird? When would you use each method?
4. What problems did you have the first time you tried to remove a bird from a cage?
5. Why is it important to know the proper way to handle birds?

Generalize:
6. How important is it to be kind to people?
7. What are some things you do to show your friends you care or value their friendship?

Apply:
8. How do you expect your friends to treat you? Why?
REFERENCES:
Catching and Handling Poultry, Agriculture Extension Service, University of Minnesota
Handbook of Livestock Management Techniques, Richard A. Battaglia and Vernon B. Mayrose, Burgess Publishing Company

Author:
Cynthia R. Siemens, Extension Assistant, Kansas State University; James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

Reviewed by:
Albert W. Adams, Professor Emeritus, Poultry Sciences, Kansas State University; R. Scott Beyer, Extension Specialist, Poultry Sciences, Kansas State University; Poultry Design Team

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Washing That Bird
Poultry, Level I

What Members Will Learn . . .

ABOUT THE PROJECT:
• The importance of exhibiting clean and parasite-free birds
• Show how to properly clean and groom a bird for show

ABOUT THEMSELVES:
• Their feelings about the importance of teamwork

Materials Needed:
• Three tubs or large containers of warm water
• Detergent or mild soap
• A sponge or soft brush
• Old towels or soft cloths
• Petroleum jelly, mineral oil or a similar type of oil
• Clean coops or cages
• Several birds
• Sevin or Malathion and a shaker can

ACTIVITY TIME NEEDED: 60 MINUTES

ACTIVITY:
Poultry for exhibit should be clean and free of external parasites, which are tiny bugs like lice and mites that sometimes live on the outside of a chicken’s body. Dirty birds are a reflection on the exhibitor and will most likely be graded down during judging. White-feathered birds especially need to be washed to have a clean appearance. Non-white feathered birds and waterfowl may only need their shanks and feet washed and some cleaning about the head with a damp cloth.

Not all poultry exhibitors use the same procedure in preparing their birds for show. More experienced members in the club may be familiar with a washing procedure. The following is a suggested procedure:

1. Use a warm (about 80 to 85°F), draft-free room for washing and drying the birds. Birds should dry slowly for best results. Use a heat lamp if a warm area is not available.

2. Use three tubs of water; work up a good batch of suds in the first tub and use the second and third tubs for rinse water. The wash water should be warm to the touch and the rinse water slightly cooler to aid in removal of the soap.

3. When washing the bird, rest the bird on the palm of one hand and restrain the bird with the other hand held over the back of the bird.
4. The feathers must be soaked well or they may break.

5. Wash the feathers thoroughly, with the grain, using your hand or a sponge.

6. Rinse with lukewarm water by moving the bird back and forth through the water. After removing the bird from the water, press as much water as possible from the feathers. Repeat the procedure after each rinse. Be sure there is no soap left on the feathers.

7. Press (don’t rub) dry the birds with a towel or cloth and place them in a clean coop or cage in a warm room until they are completely dry.

8. Check the birds for lice and mites and treat if infested.

9. Just prior to judging, check the birds over for soiled spots that can be removed with a damp cloth. Clean the shanks and toes with a brush. A toothpick can be used to clean around the toes and under the shanks. Rub a small amount of mineral oil or petroleum jelly on the shanks, feet, beak, comb and wattles. This will give these areas a polished appearance.

Nothing gives a judge a more negative attitude about an entry than the presence of external parasites. Thus, the birds should be examined for the presence of external parasites several days prior to the show. The most common external parasite found on show birds is the common body louse. This parasite is visible to the naked eye. Body color varies from gray to yellow to black. They live on the bird, feed on dry scales and feathers and get moisture from the vent. The most obvious signs of an infestation are the movement of the lice in the vent area of the bird, and the presence of clusters of eggs (nits) on the feathers around the vent. If lice are present, dust each bird individually, particularly around the vent, with an insecticide such as Sevin or Malathion. For a small flock, providing a dust box with insecticide, is a good control practice.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**
1. What happened when you soaked the bird in warm water?

2. What was the most difficult part of washing a bird? Why?

**Process:**
3. Why is it important to have a warm room and warm water for washing a bird?

4. What is significant about checking for lice or mites on a bird?

5. What part of the bird is most likely to have lice? Why?
Generalize:
6. What is different when washing a bird as compared to other animals?

7. What did you learn about teamwork?

Apply:
8. What other jobs do you do that require help?

9. When is teamwork important for other things that you do in your project group or club?

GOING FURTHER:
- Give a demonstration to club members on how to prepare a bird for show.

REFERENCES:

Author:
Cynthia R. Siemens, Extension Assistant, Kansas State University; James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

Reviewed by:
Albert W. Adams, Professor Emeritus, Poultry Sciences, Kansas State University; R. Scott Beyer, Extension Specialist, Poultry Sciences, Kansas State University; Poultry Design Team

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Why Do We Raise Poultry?

What Members Will Learn . . .

ABOUT THE PROJECT:
- Five eggs or egg products
- Price differences in size and grade of eggs
- Three companies that distribute poultry meat products

ABOUT THEMSELVES:
- How they can learn at the grocery store
- Their ability to check prices and compare items

Materials Needed:
- Activity Sheet 8, Store Search
- Clipboard or something to write on
- Pencil

ACTIVITY TIME NEEDED: 60 MINUTES

ACTIVITY:
We raise poultry mainly for food. Poultry products can be seen in stores as eggs and egg products or as meat and meat products.

Today, we are going to the local grocery store to see how many egg and egg products we can find. Be sure to check the price differences between different sizes and grades of eggs. See how many company or brand names you can find. Do the same thing with poultry meats.

Leader Notes
Divide members into groups of two or three and let them find and list products on the Activity Sheet 8, Store Search. You may need several copies per member. Be sure to spend some time reviewing and discussing Store Search Activity Sheet.
DIALOGUE FOR CRITICAL THINKING:

Share:
1. How many different items did you find?
2. Were there more eggs or meat products?

Process:
3. What differences in prices did you find?
4. What did you learn about egg prices that might help you understand other items?
5. What affect did packaging have on price?

Generalize:
6. What did you learn about comparison shopping?
7. How will this lesson prepare you for other purchases?

Apply:
8. What will you do differently the next time you go shopping?

GOING FURTHER:
• Visit someone who sells eggs to see how they size or grade their eggs.
• Visit or ask a poultry products company to send you information about their products.

REFERENCES:
Author:
Dr. Sam Varghese, Extension Specialist, Department of Animal Science, Michigan State University; James P. Adams, Extension Specialist, 4-H Youth Programs, Kansas State University

Reviewed by:
Albert W. Adams, Professor Emeritus, Poultry Sciences, Kansas State University; R. Scott Beyer, Extension Specialist, Poultry Sciences, Kansas State University; Poultry Design Team

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WHY DO WE RAISE POULTRY?
POULTRY, LEVEL I
Activity Sheet 8, Store Search

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<th>Product Name</th>
<th>Brand or Company Name</th>
<th>Price per lb. oz., doz., etc</th>
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<td></td>
<td></td>
<td>Egg</td>
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<td>Meat</td>
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Think Back:
What do you remember most about catching, handling or washing a bird?

What is your favorite poultry food? Why?