Flocking Together

Poultry Project Activity Guide
If you were a project helper for one or more youth involved in completing Poultry 1 Scraeching the Surface or Poultry 2 Testing Your Wings, you know what a great experience this important role is. As a helper you are in the perfect position to help youth grow and develop in positive ways as they learn about poultry and themselves. You nurture and cultivate their interest in this project by guiding their planning, helping them complete their activities and recognizing them for a job well done.

Your Role

• Become familiar with the material in this activity guide and the Helper's Guide.
• Support youth in their efforts to set goals and complete each achievement program.
• Date and initial the activities on the Flocking Together Achievement Program as they are completed and discussed.
• Help youths to get to know themselves, including their strengths and weaknesses.
• Encourage the use of the experiential learning cycle described on this page.

The Poultry "Skills for Life" Series

This guide, Flocking Together, is the third in the series of three for youth, which also includes Poultry 1: Scratching the Surface, Poultry 2: Testing Your Wings and the Poultry Helper's Guide. The three youth guides have been designed to be developmentally appropriate for grades 3-4, 5-7 and 6-9 respectively, but may be used by youth in any grade based on their project skills and expertise.

All activities in the guides have several parts:

A description of the skills to be practiced, discussion questions, suggestions for additional activities and additional helpful information. The "Success Indicator" listed for each activity is an excellent way to evaluate the youth's success.

Each of the guides also includes an achievement program to encourage youth to learn more about poultry while developing important life skills. In the Helper's Guide you will find another evaluation piece titled "Evaluating the Impact." Use this before the youth begins each level and after each level is completed.

Each activity is designed so the young person has an opportunity to learn by doing before being told or shown how. Your challenge is to "sit on your hands" while the youth explores and learns, even when things don't seem to work the way you expected them to. You can help most effectively by listening as the young person considers the questions and draws conclusions. At times the activity may call for you to be a resource person for content or ideas.

The fourth publication in this series, Poultry Helper's Guide, provides additional learn-by-doing activities that can be adapted for families, classrooms, youth groups or other groups. You'll also find helpful hints about characteristics of youth, life skill development, teaching experientially, club meeting ideas as well as answers to many of the activities in the youth guides.

Experiential Learning Model

This five-step model is included in each activity in this series.

As you can see, the youth first attempt the activity without assistance. After the youth do as much as they can you then meet together and discuss: What did they do? What was important about what they did? How does what they did relate to their lives? And finally, how might they use the life and project skills practiced in the future? Sample questions are included following each experience. Your ability to ask additional thought-provoking questions and to clarify and expand participant ideas will add to the educational experience.

Acknowledgements

Revision Team: This revision of the four poultry activity guides was accomplished by the Poultry Design Team comprised of Susan Karn, DVM, PhD, WA, Coordinator; Phillip J. Clauer, PA; Richard Rynne, PhD, WA, DC; Dennis Janey, WA; Linda J. Williams, WA; Emily Troyer, KY; Francine Bradley, PhD, PA, David Owen, WA; Carl Richards, PhD, PA, Fred Zillich, MO; Lynanne DeGarmo, KS; Jeff Buhr, GA; Josie Lycins, PhD, MO; Mary Dolany, CA; and Tom Zurcher, PhD, MI.

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Flocking Together

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For more on poultry... look for these other guides in this set.
Having Fun with the Poultry Project

By now you are nearly an expert on poultry, or certainly know more than you did when you started this project. Whether you raise one or several poultry breeds, you are in an excellent position to share your experiences with others. Flocking Together provides several opportunities for you to develop your leadership skills as you strive to complete the Flocking Together Achievement Program. Here are some of the things you’ll do:

- Sponsor and conduct a poultry judging clinic
- Preserve and reconstruct a bird’s skeleton
- Manage a small flock of laying birds
- Determine inheritance in chickens
- Describe various biotechnology concepts
- Process a chicken
- Conduct experiments with eggs
- Lead an egg craft project
- Handle eggs safely
- Play the game Caeciliaeories
- Identify and discuss poultry-related ethical issues
- Describe character traits employers want
- Identify 20 careers involving poultry

Poultry 3 Project Guidelines

- Do a minimum of seven activities of the Flocking Together Achievement Program each year and complete this level within three years.
- Participate in a minimum of five of the learning experiences listed each year.
- Practice and develop the life skills of leading others, making decisions, and planning and communicating, while you learn to think creatively, use community resources, explore careers and take responsibility.
- Keep your planning guide current.
- Share your poultry knowledge and skills with others.
- Have fun!

Flocking Together Achievement Program

If you have completed Poultry 1 Scratching the Surface and Poultry 2 Testing Your Wings, you know each chapter contains poultry-related activities that encourage you to practice a certain life skill while doing the activity. In many cases, because this is an activity guide and not a resource manual, you will need to research other sources of information to complete a particular activity. The page of poultry resources in the back of this guide is a good place to start, but you’ll also want to work closely with your project helper. You’ll find an abundance of information on the Internet with literally thousands of sites containing information on poultry and poultry products.

Remember, this is your own personal guide. Feel free to use it to record your thoughts and ideas. Most questions will not have “right” answers. The questions will help you explore the subject and your own ideas in more depth. Additional activities are included in the Poultry Helper’s Guide. Many of these are fun experiences for you to use with other youth as you develop your leadership skills.

Your Project Helper

Choose your own helper. This person might be a project leader or advisor, teacher, family member, neighbor, friend, or anyone who has the interest to work with you to complete Flocking Together. Meet with your helper to set goals, plan and complete activities in this guide. Discussing each activity with your helper and having this special person date and initial your achievement program will make this project more interesting and fun. Write the name, phone number and e-mail address of your project helper here:

My Project Helper
Phone #
E-mail address
My Poultry Project Goals

Name ____________________________

Breed ____________________________

What I want to do and learn in Flocking Together:
1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________

Poultry Project Highlights

Date and list the exciting things you do and learn.

Learning Experiences

Complete at least five of these activities each year.

<table>
<thead>
<tr>
<th>Year</th>
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<th>Activity</th>
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<td></td>
<td></td>
<td>Give a presentation.</td>
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<td>Be a member of a poultry organization.</td>
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<td>Help organize a poultry project meeting.</td>
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<td>Help conduct a poultry show.</td>
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<td>Participate on a judging team.</td>
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<td>Help a younger 4-H'er exhibit at a fair.</td>
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<td>Help judge a poultry show.</td>
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<td>Help plan a poultry skillathon.</td>
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<td>Coach a quiz bowl team.</td>
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<td>Organize a poultry showmanship contest.</td>
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Level 3 Completion

Flocking Together Achievement Program

I certify that ____________________________ has completed all requirements of the Flocking Together Achievement Program in the 4-H "Skills for Life" series.

__________________________  ________________
Project Helper's Signature  Date
**Flocking Together Activities**

<table>
<thead>
<tr>
<th>Date Completed</th>
<th>Helper's Initials</th>
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<tr>
<td>Chapter 1 Judging Poultry</td>
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<td>Surfing the Web</td>
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<td>Here Comes the Judge</td>
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<td>Chapter 2 Raising Poultry</td>
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<td>Meat of the Matter</td>
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<td>Dying to DeEGGorate</td>
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<td>Cock 'em with Care</td>
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<td>Tackling Cecilegories</td>
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<td>Chapter 4 Issues and Careers</td>
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<td>What's Your Opinion?</td>
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<td>Right On!</td>
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<td>Higher and Hither</td>
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<td>Are You for the Birds?</td>
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Surfing the Web

D o you have access to the Internet? Do you know how to search for information on the World Wide Web? Do you have someone who can help you if you don’t have access or don’t know how? This activity will be your opportunity to learn or sharpen your computer skills, while learning more about poultry, poultry breeds and poultry judging.

Take off!
Surf the Web. List five poultry web sites and the type of information found in each. Print five pieces of information that interest you. Work with other group members to put together a notebook of the printed information. Everyone including those who don’t have access to the Internet can then use this notebook. Make a display poster of poultry resources on the web. This poster can be used in presentations and displayed at fairs. Be prepared, there are over one million potential sites that have something to do with poultry!

<table>
<thead>
<tr>
<th>URL</th>
<th>Type of Information Found Here</th>
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Share with your helper

Crow about it
- How many poultry-related web sites did you find?
- Who sponsored the web sites? Breed associations, feed companies, veterinary supply companies, schools and universities? What others?

Incubate ideas
- How will the information you printed help others learn about poultry?
- How will you use the poster to let others know about this resource and about poultry?

Spread your wings
- If you need other information about a topic you are interested in, how can you find it on the web?

Un-coop your knowledge
- What would you do if something you found on the web didn’t seem to be in line with information you already knew to be correct? How can you tell if the information you found is accurate?

Eggstra Challenges
1. Find a poultry "pen-pal" through the net.
Okay, let’s face it: If you’ve made it to Poultry 3, *Flocking Together*, you like birds—a lot! When you enjoy a topic and you know a lot about it, it’s just natural to want to share that knowledge and information with others. It’s fun, too! In this major activity, you and your friends will plan, organize and conduct a judging clinic. “No way! That’s too much work!” you say? Well, with a bit of discussion and planning, you can divide up the tasks and break a huge job down into pieces that are manageable for each person. Time to get to work planning your judging clinic!

**Take off!**

As a group, decide what is needed to conduct a successful judging clinic. Complete the following chart. Use additional paper if needed. Check Fowl Facts for additional ideas.

### Judging Clinic Plan of Action

<table>
<thead>
<tr>
<th>Date</th>
<th>Day’s Schedule</th>
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<tr>
<td>Time</td>
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<td>Place</td>
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<td>Audience</td>
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Judging Stations

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<th>Person Responsible</th>
<th>Supplies Needed</th>
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Audience

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<th>Person Responsible</th>
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**Life Skill:**

- Contributing to a team effort

**Poultry Project Skill:**

- Gaining experience in planning and organizing a large event

**Success Indicator:**

- Sponsors and conducts a poultry judging clinic as a member of a team.
Share with your helper

Crow about it
- How did you plan the judging clinic?
- What was your favorite part of the planning process? Of the judging clinic itself?

Incubate ideas
- Why is it helpful to divide a large task into smaller parts?

Spread your wings
- What did you learn about organizing a large event?

Un-coop your knowledge
- What would you do differently next time?

Fowl Facts

Judging Clinic Planning Ideas

- Budget for the activity (make sure your helper or another adult looks it over)
- Source of funds (will you need a fund raiser?)
- Advertising (radio, TV, newspaper, newsletter, Internet, e-mail, direct mail, invitations)
- Photographs (to help publicize as well as record and report about the event)
- Materials (the things that participants will be judging: eggs, retail parts, feed, etc.)
- Supplies (judging cards, pencils, gloves, answer sheets, etc.)
- Chairs and tables (make sure you will have enough; you may need to borrow more)
- Food (don’t forget pepper products such as peppers, cups, napkins, silverware. Keep cold foods at or below 40°F and hot food at or above 140°F; protect food from flies and insects. Don’t forget beverages)
- Rest Rooms (have enough clean and well-stocked rest rooms for all the people you anticipate, including a handicapped-accessible rest room)
- Schedule (develop a reasonable timetable for the day’s events)
- Timer (recruit someone reliable to time events and keep the day on schedule)
- News article, including photos (to report the event after it happened)

- Insurance (will you need to insure people at this event?)
- Signs (directions to location, signs at the location)
- Program (develop a timetable and agenda to be handed out at the event)
- Judge(s) (may need contracts and payment; may just ask for mileage reimbursement; you may not even need a judge)
- Communication (telephones, PA system)
- Duplication (how will you make copies of handouts, agendas, etc.)?
- Location of program (you may need to sign a contract and put down a deposit; find a place that is in compliance with the ADA)
- Leadership (make sure you divide up and document all the leadership opportunities that are part of this event! Encourage youths to record this in their record books)
- Registration/reception (name tags, sign-in sheet, welcome, orientation, handouts; secure cash box and receipts needed?)
- Prizes or ribbons to award to winners/participants (purchased or donated?)
- Evaluation of event by participants (don’t forget to look at them and follow recommendations for improvement)

Ideas for Judging Stations

Things to judge at a judging clinic: eggs, retail parts, classes of birds (broilers, layers, pullets, breeds of hens, roosters, laying hens, ducks, turkeys, goose, game birds), feed, cages, equipment, showmanship, oral reasons, poultry parts, poultry terminology, feathers, comb, feet, . . . use your imagination! You can also have an activity at a station. Examples include ration formulation, calculation of medication dosages, feed identification, breed identification, comb type identification . . . the sky’s the limit!

Details to Consider

- Who is responsible for each item listed above?
- What is the deadline for each item to be secured or accomplished?
- Will you make this an annual event? If so, it may become a reliable fund-raiser for you.
- Will you ask people to pre-register, or just register at the door on the day of the event?
- Send a small gift or thank you card to the people who helped sponsor your event.
- Keep good records of this event—they will come in handy if you sponsor the event again.

Bird Banter

When surveyed, employers report that teamwork skills are one of the top ten traits they value in employees.

Eggstra Challenges

1. Plan a poultry show or a showmanship clinic.
2. Volunteer to help with a large regional poultry show.

Acknowledgement: Revised by Susan R. Kerr.

Resources: Poultry Learning Kit from Ohio State University
Ready for a real challenge? By now you have learned to name most of the bones that compose the chicken skeleton. This activity is your opportunity to assemble the pile of bones to make a mounted skeleton. You’ll learn how the bones of the skeleton connect with each other, how the skeleton functions for locomotion, and the special adaptations of the bird’s skeleton for flight. Who knows, this could be the start to your own museum collection!

**Take off!**

With one or more helpers, obtain a mature rooster or hen that is several years old. Process it, cook in a pressure cooker and remove the muscles from the carcass, leaving the bones. You will use wire and glue to hold the bones in place and mount it in an upright position. Mounting hints are included in Fowl Facts. Show and describe in the space below how you mounted the skeleton—either draw the finished mount or attach a photograph.

**Share with your helper**

**Crow about it**
- How did you mount the skeleton?
- What was the most challenging part of the project?
- What resources did you use to complete the project?

**Incubate ideas**
- What plans did you make before beginning this detailed project?
- What did you learn about poultry by mounting a skeleton?

**Spread your wings**
- What’s one thing you can do to improve your ability to plan?

**Un-coop your knowledge**
- What are some tools you can use to help keep you organized?
Materials: Duct cement, small knife, tooth brush, string, plastic or latex gloves, five small nylon mesh or cheesecloth bags, bleach or hydrogen peroxide, 2 feet of 12 – 16 gauge wire, a 2-foot metal, wood, or plexiglass rod (5/8 – 3/4 inch diameter), 7” x 12” x 1” hardwood board for the base, and a good diagram of the chicken skeleton. The wires should be aluminum or stainless steel, do not use uncoated iron, copper, or brass which may discolor in lime and stain adjacent bone.

1. After eutanizing the bird, remove the skin, feathers, comb and wattles. Open the abdominal cavity along the midline and remove the viscera. Carefully cut away the large muscles of the breast, thighs, legs, being careful not to cut or gouge any bones or their cartilage during scraping. The scales will be loosened from the shanks and feet during boiling.

2. Separate the wings at the shoulder joints and the legs at the hips by inserting a knife blade into the joint cavity and then cutting around the joint capsule in a circle. The acetabular ligament attaches the head of the femur to the pelvis and may be hard to cut, but can be ruptured easily by rotating the leg the same direction in a circle several times. Place the head, beak, and wing into a separate nylon net bag or cheesecloth square and tie with string.

3. Cover the carcass with water and boil for about two hours. The wings will be ready first and the feet last. The spinal column and rib cage can be kept intact by removing them from the pelvis and rinsing and brushing off as much remaining muscle as possible every 30 minutes. Before the neck vertebrae separate from each other, place a string through the neural canal and tie it to keep the bones in order. Coat the bones of the skeleton in running tap water before opening the bags. To catch small bones and cartilage, place a strainer in the sink drain. Boiling is complete when all remaining flesh can be scrubbed from the bones with a toothbrush. For the limbs, it may be advisable to remove one side from boiling while it is still attached by the ligaments. The articulated limb can then be used for comparison while assembling the limb where the bones have completely separated.

4. When each segment of the skeleton is clean, soak the bones for two hours in a gallon of hot water to which is added 1/4 cup of laundry soap to remove fat and oil. Next rinse in water and then immerse in either 3% hydrogen peroxide or bleach (one cup/gallon water) for 24 hours to remove blood and to whiten the skeleton.

5. Soak and rinse the bones again in tap water and place them onto paper towels on a plastic or aluminum tray for drying at room temperature. Turn the bones and rib cage over daily for even drying for about one week. Sharpen one end of the gauge 12 – 16 wire and insert it into the spinal canal from the anterior end. Wedge the sharpened end into the caudal end of the sacrum. Band the wire and spines together into the desired position.

6. When the skeleton is dry, start by reattaching the spinal column and rib cage. Apply glue and hold the bones together in pieces of cellophane tape, string or rubber bands. Bend the free end of the gauge 12 – 16 wire into an S-shape curve to resemble the curvature of the neck. Put the first thoracic vertebra in place and then place the cervical vertebrae on the wire at a time, reposition and then glue the adjacent vertebrae together. Place a piece of cork on the cranial end of the wire and size it to fit into the foramen magnum of the skull.

7. Now the spinal column and rib cage need to be suspended/supported in order to attach the wings and legs. A small skeleton can be suspended on the end of the metal or wood rod cut at a 45-degree angle that is glued directly to the base of the sacrum and also at the caudal end of the sternum. For a larger skeleton, about two inches of the tip of the rod should be bent about 15 degrees to provide additional support under the spinal column. Wires wrapped around the spinal column and metal rod will provide additional support. The lower end of the rod is fixed into the center of the wood base.

8. The wings and legs require partial assembly prior to attachment to the rest of the skeleton. Determine the angles for the wing joints and then glue the radius and ulna to the humerus at the elbow. Support the bones in position with modeling clay until dry. Glue together the radial and ulnar carpal bones to the carpometacarpus. Now attach the phalanges. The head of the humerus can now be glued to the shoulder joint formed by the coracoid, scapula and wishbone. Support the wing by gluing a 1/8-inch segment of a plexiglass rod between the elbow and the scapula, or glue directly to the scapula.

9. Drill small holes into the ends of the bones forming the knees and ankles. Place a one-inch piece of wire into the hole, band the joint into the desired position and apply the glue. Hold the joints in position with tape. Glue the femurs into the hip sockets of the pelvic girdle. The patella can also be attached with glue or wire.

10. Depending on the length of the legs, cut the support rod so that the skeleton is oriented in an upright position. Anchor the support rod to the base board. Glue the digits of the feet onto the wood base.

11. Glue the mandible to the skull and position the mouth as desired. A cemented thread can be used to hold the hyoid apparatus (bones that support the tongue) and sternal ossicles (bone rings within the eyes) in place, or they can be glued directly to the wood board.

12. Spray the skeleton with clear plastic for preservation or brush it with a thin coat of varnish. A plexiglass box will keep the dust off the skeleton for years of enjoyment.

Acknowledgement: Written by Jeff Buehr, Poultry Skeleton. Adapted with permission from Kansas State 4-H Poultry Leader’s Handbook.

Bird Words - Articulate – Communicate or move with each other. Anterior – Toward the head. Caudal – Toward the tail.

Eggstra Challenges

1. Mount the skeleton of another smaller bird.
2. Visit a museum of natural history and talk to the curator about preparation and care of skeletons.
3. Visit a museum of natural history and study all the various kinds of bird skeletons. Report what you discovered to your helper.
4. Use the skeleton you made to teach the names of poultry bones to younger youths.