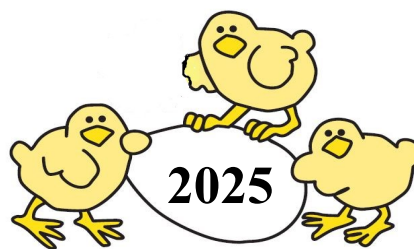


# POULTRY

Allen County 4-H

Due June 4 in the Extension Office

Level 1 – Grades 3-4-5



## What you will do in this project:

- Enroll in the 4-H program by January 15.
- Complete the project by answering at least two of the activities in this activity sheet and turning it into the Extension Office **June 4** or earlier. This activity sheet consists of activities, and a record sheet.
- Attend County 4-H Poultry workshops when offered.
- Refer to the Allen County 4-H Rules Book for a complete listing of all regulations concerning this project.
- You can exhibit in all 10 Classes that are offered, no more than 2 pens per class.
- You may exhibit a Poultry Education poster in addition to the birds.
- **All birds must be in your possession by May 15 with the exception of broilers that are hatched at the end of May.**
- Complete FairEntry online by published deadline.
- To exhibit beef cattle, dairy cattle, swine, sheep, meat goats, dairy goats, poultry and rabbits, 4-H members must be certified through the Youth for the Quality Care of Animals program. This is an annual program that can be completed via online modules or in-person trainings. For more information about in-person trainings in your county, please contact your County Extension Office. More information about YQCA is available at <http://yqca.org/>. **Attach a copy of YQCA card.**

## Management Tips:

- Provide clean, freshwater to your birds at all times. In the winter, warm (but not hot) water will be needed. Birds on average will drink 1-2 cups a day. Check their water at least twice a day – more often on hot days.
- One chicken eats about 2 pounds of feed each week. 12 chickens eating two pounds a week would eat 24 pounds week. (12 birds x 2 lbs = 24 lbs)
- A feed ration of at least 16% protein for the mature chicken is needed.
- Put at least a 4 inch layer of bedding on the floor for your birds and keep dry. Spread fresh bedding on the top. Clean area completely at least once a year with a solution of 2 tablespoons of chlorine bleach into 2 gallons of boiling water. Scrub with a broom. Ventilate well to dry.
- Birds should be washed before bringing to the fair with a solution of warm water and 2 table spoons of chlorine bleach in a five gallon bucket.

4-H Member: \_\_\_\_\_ 4-H Club: \_\_\_\_\_

Grade in School (January 1, 2025) \_\_\_\_\_ Years in this project \_\_\_\_\_

Signature of 4-H Member verifying that you have completed these activities:

\_\_\_\_\_

Signature of Parent that you have reviewed this information:

\_\_\_\_\_

#### 4-H Animal Care:

The Indiana 4-H program strongly supports positive animal care and strongly opposes animal abuse. 4-H is also dedicated to the mission of developing youth and volunteers through “Learning by Doing” programs.

4-H livestock projects teach life skills such as acquiring knowledge, making decisions, and applying leadership skills.

- When working and caring for animals, it is important to insure that appropriate safety measures are in place for both the animals and the persons who care for them. Therefore, there is no substitute for knowledge, common sense, and experience.
- Animal handlers should study and learn to anticipate an animal’s reaction and try and avoid problem situations. It is most important that 4-H members understand an animal’s behavior so one can “outsmart” not “out-muscle” an animal. Foremost in the 4-H’er mind should always be safety of the handler and the animal. Moving animals is more of an art than a science. Movement of animals requires planning and knowledge to accomplish it with the least amount of time, effort and stress to the animal.
- An animal’s good health is often directly related to the environmental factors associated with its living space. The presence of predators, dust, odors, pests, temperature, and humidity has a direct effect on an animal’s well-being.
- Animals react favorably to daily care and comfortable housing. Consideration should also be given to specific animal needs such as size of their housing space, lighting, and ventilation. The best facilities and equipment cannot and should not be a substitute for daily observation and careful attention to signs of illness, injury, and/or unusual behavior.
- Frequent consultation with your veterinarian is a must. Reasonable attention must always be given to the use of drugs and their approved withdrawal times.



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, quail and pheasant 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 beak. 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.

**GEESE** 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. Guineas 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 duller 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.

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

### Write the breed underneath the bird.

Quail

Duck

Chicken

Pheasant

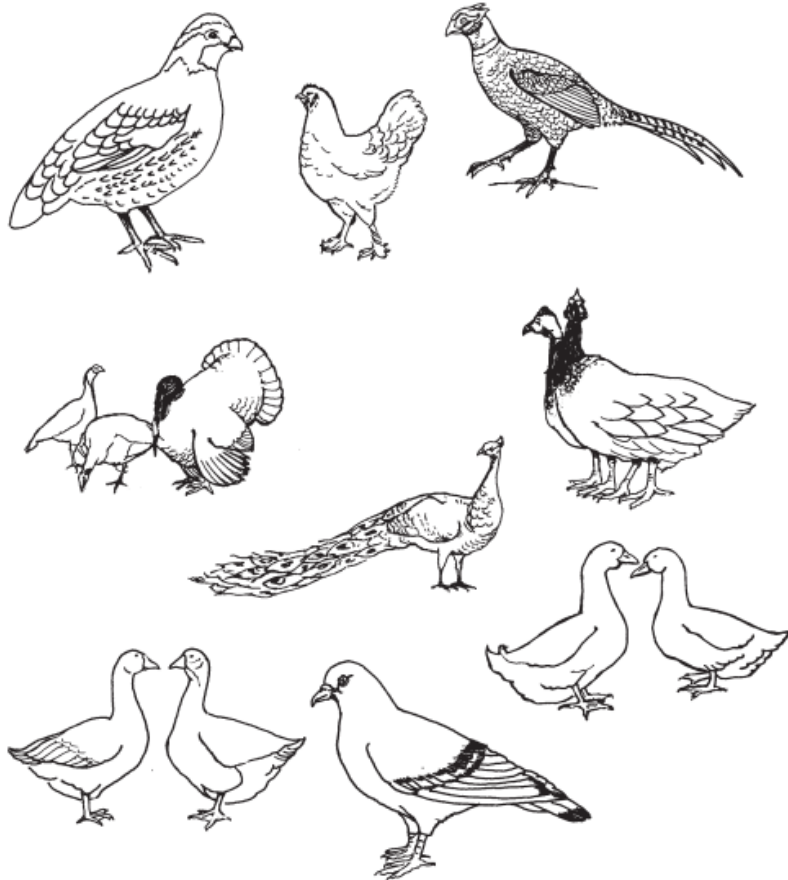
Turkey

Goose

Guinea Fowl

Pigeon

Peafowl



## Activity 2

### Turkey Terms

The turkey is the largest bird on the farm. The male turkey is called Tom or cock. The female is called a hen and the baby is called a poult. A young male is called Jake while a young female is called Jenny. The male turkey has a long wattle at the base of the bill and additional wattles on the neck. Turkeys are omnivores. They feed on insects, plants, corn, wheat and seeds. It also has a prominent tuft of bristles

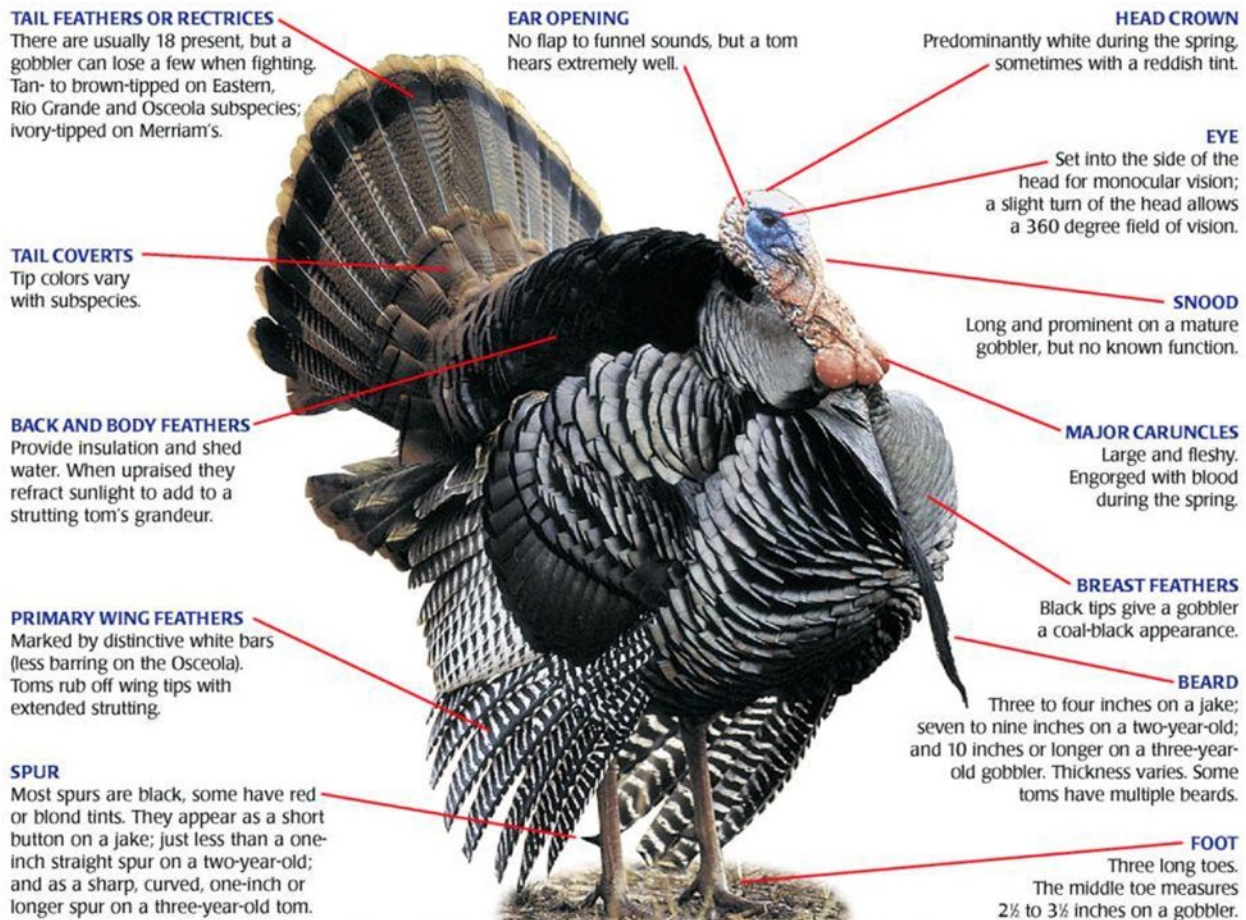
projecting downwards from its chest. The male will raise its tail feathers to form a vertical fan shape when it is courting the female. It also does this when as a show of aggressive display towards its enemies. As it grows older, it also gets more aggressive. The males get into fights among themselves for access to the hens or females. Male turkeys are also more colorful than the females, like most birds. Their plumage comes in a variety of bronze, green or reddish colors. The chest feathers on the males are coarse. Wild turkeys can fly. They fly and roost (sleep) in trees.

However, commercially bred turkeys are usually white. Their colors have been purposely bred out because the pigment from the feathers would discolor the turkey's skin during dressing. They cannot fly because their breasts are thicker and heavier.

Turkeys do not like water and the cold. Commercially bred turkeys are kept warm with heat lamps. In the wild, turkeys build their nests with dried leaves and grasses in places that are not easily seen on the ground. They can lay about 9-18 eggs in a clutch (a set or cluster of eggs). Their eggs look creamy white with red-brown speckles all over. Baby turkeys or poults live in a brood (group of young birds/fowl).

Turkey meat is very popular during certain festivals in certain countries, like Thanksgiving in the United States and Christmas dinner in most European countries.

Turkeys are the only breed of poultry native to the Western Hemisphere



### Know the Difference Between Hens & Gobblers

It's easy to distinguish a gobbler from a hen by differences in their size, color, heads, and other characteristics.



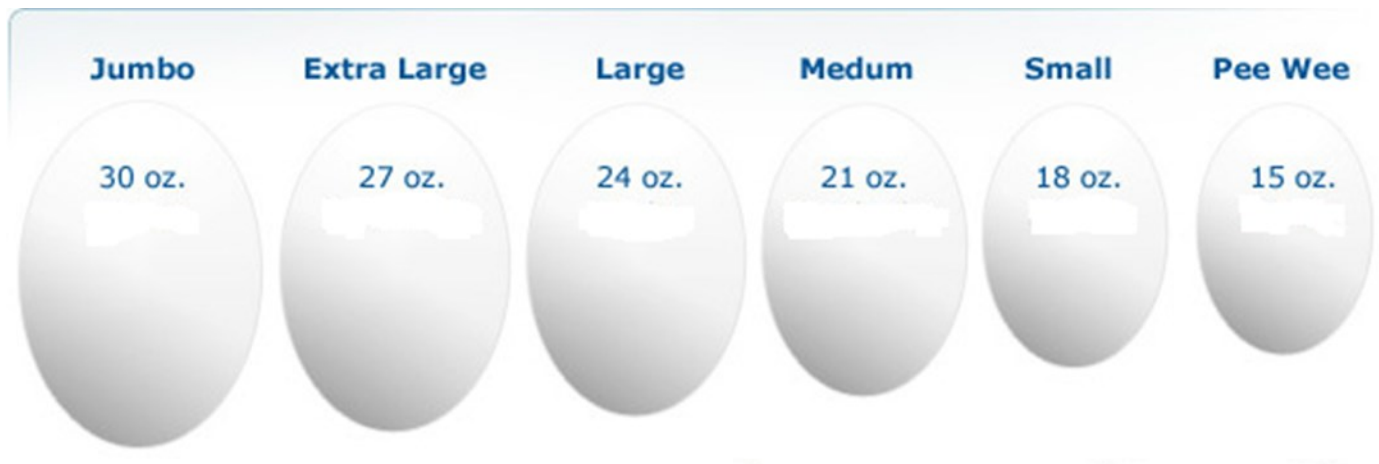
What is another name for Major Caruncles?

What are the differences in a tom and a hen?

Do turkeys have ears?

What is the most common turkey in the United States?

Describe the vision of a turkey.



Most recipes that call for eggs usually mean Large eggs. About 11% of a chicken egg's weight is shell.

### **Color**

Although egg color is a largely cosmetic issue, with no effect on egg quality or taste, it is a major issue in production due to regional and national preferences for specific colors, and the results of such preferences on demand. For example, in most regions of the United States, chicken eggs are generally white. In some parts of the northeast of that country, particularly New England, where a television jingle for years proclaimed "brown eggs are local eggs, and local eggs are fresh!" brown eggs are more common. Local chicken breeds, including the Rhode Island Red, lay brown eggs. Brown eggs are also preferred in Costa Rica, Ireland and the United Kingdom. In Brazil and Poland, white chicken eggs are generally regarded as industrial, and brown or reddish ones are preferred. Small farms and smallholdings, particularly in economically advanced nations, may sell eggs of widely varying colors and sizes, with combinations of white, brown, speckled (red), green, and blue eggs in the same box or carton, while the supermarkets at the same time sell mostly eggs from the larger producers, of the color preferred in that nation or region.

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## How Long Do Eggs Keep?

According to the U.S.D.A, store-bought eggs in the shell will keep for 3 to 5 weeks in a home refrigerator at 40° Fahrenheit. (This estimate assumes they have no cracks, are not kept in the refrigerator door, and have not been washed by the consumer.) If the eggs are above 40° F for more than 2 hours, the USDA recommends they be discarded. Egg cartons with the USDA grade shield will have a pack date printed on them, which is the day of the year, starting with January 1 = 1, on which the eggs were washed, graded and placed in the carton. Many states also require a "Sell by" or "EXP" date on the carton.

Hard-boiled eggs do not keep as long as fresh eggs.

We receive many messages from readers unwilling or unable to take the U.S.D.A.'s advice. Often, they want to know how long a freshly-laid, unrefrigerated egg will last. There is no simple answer to this question. For them, here is the advice of a respected source from an earlier time:

### *To Determine the Freshness of Eggs*

- Hold in front of candle flame in dark room, and the center should look clear.
- Place in basin of cold water, and they should sink.
- Place large end to the cheek, and a warmth should be felt.



Write the correct letter to the definition.



**Air Cell**



**Albumen**



**Chalazae**



**Shell**



**Yolk**



**Shell Membranes**



**Germ Spot**



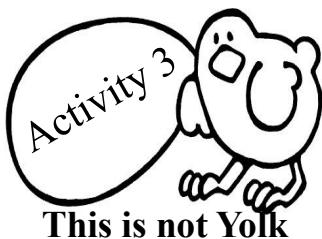
**USDA**



**A and AA**

- A. The white of an egg. This watery substance supplies the growing embryo with food and water.
- B. The hard protective outer covering of an egg. This has tiny pores in it to allow the passage of gas and moisture in and out of the egg.
- C. The abbreviation for the United States Department of Agriculture.
- D. The twisted cords at each end of the yolk. These keep the yolk from moving about and sticking to the shell.
- E. The yellow of the egg. This is the food source for the growing embryo.
- F. The pocket of air at the large end of the egg.
- G. The two common grades given by the USDA.
- H. The “white spot” on the yolk where the embryo develops.
- I. The two thin layers inside the egg shell.





What's in an egg? You already know that a hard shell surrounds an egg, a cracked egg will leak, the contents of an egg may be eaten, and if incubated, a fertile egg might make a chick. But do you know what else you'll find if you look closely? Knowing the different parts of an egg, how they are formed and the functions of each will be very helpful. If you plan to hatch eggs, conduct experiments on incubation and embryonic development or just want to know about the quality of the eggs you buy and eat, you'll enjoy this activity.

## Fowl Facts -- Egg Parts

**Air Cell:** The air pocket at the large end of the egg that forms between the inner and outer shell membranes to replace the moisture the egg loses as it cools and is stored.

**Albumen:** The white of the egg that contains primarily water and protein.

**Shell:** The egg's outer covering made mainly of Calcium Carbonate.

**Chalazae:** Two white cords attached to each side of the yolk that hold the yolk in the center of the egg. Formed of tightly wound membranes that hold the yolk and white layers in place.

**Germ Cell:** The genetic material supplied by the hen. It is the white spot on the surface of the yolk. If fertilized, it becomes the germ spot.

**Germ Spot:** The living part of a fertilized egg. It is the donut shaped white spot found on the surface of the yolk. It contains genetic material.

**Shell membranes:** The membranes between the shell and the liquid portion of the egg. The outer shell membrane is fused to the shell and the inner shell membrane surrounds the liquid portion of the egg.

**Vitelline membrane:** The clear seal that holds the yolk.

**Yolk:** The yellow part that contains large amounts of fat, protein, vitamins and minerals essential for normal embryonic development. The developing chick relies on the yolk for its nutrition before it hatches.

**Yolk sac:** A membrane sac surrounding the yolk of the egg. The yolk sac is a source of food for the developing child embryo.

## Crack the Case

Hold an egg up to a light (candle it) and see if you can see several different parts. On the outline of egg "A" below, draw what you see. Now break a fresh egg onto a plate. Again draw each of the parts you see on egg "B". After you complete each drawing, label all the parts you can identify. The descriptions in Fowl Facts may help you. Also check the internet, talk with your helper, and other experienced poultry raisers if you have questions. Finish by coloring your drawings.

Egg A

Egg B

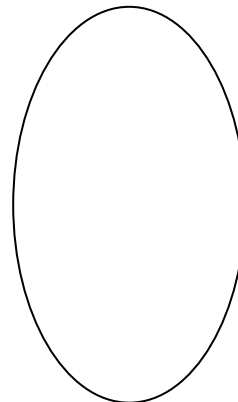
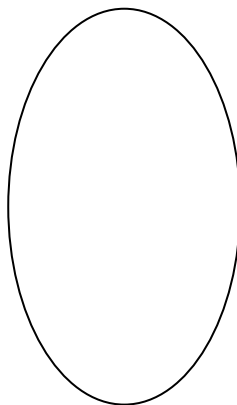
### Egg Parts

**Chalaza** – Two white cords attached to each side of the yolk that holds the yolk in the center of the egg.

**Albumen** – The white of the egg that contains primarily water and protein.

**Yolk** – The yellow part that contains, large amounts of fat, protein, vitamins and minerals essential for normal embryonic development.

**Germ Spot** – White spot on the surface of the yolk that contains the female's DNA. If the egg is fertilized and incubated it could develop into a chick.



### ***Crowing time***

What parts of the egg did you identify?

What parts were new to you?

What resources did you use to learn about eggs?

### ***Grinding out what's important***

- Why is it important to learn about eggs?

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### ***Hatching ideas***

- How can you improve your observation skills?

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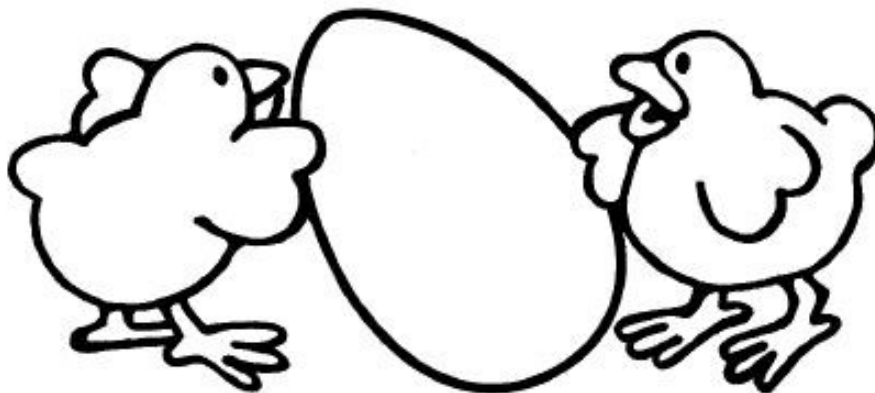
### ***Flapping your wings***

- What information can be learned by candling an egg?

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# ALLEN COUNTY 4-H POULTRY RECORD

*Records serve as a way to measure your own success with a project. When answering these questions, you should be able to see where improvements can be made for next year and if you wish to continue with this project for another year.*



Commercial					
Class	Breed	Date Purchased	Number Purchased	Cost of Birds	Number of Birds Dead/Lost
Broiler					
Turkey					
White Egg Layer (Over 6 Months)					
Colored Egg Layer (Over 6 Months)					
White Egg Pullet (Under 6 Months)					
Colored Egg Pullet (Under 6 Months)					

Exhibition					
Class	Breed	Date Purchased	Number Purchased	Cost of Birds	Number of Birds Dead/Lost
Standard Exhibition					
Waterfowl					
Clean Legged Bantams					
Feather Legged Bantams					

List the equipment/housing arrangements needed for your project. Include feeding equipment, bedding, housing, grooming tools, etc. that you use to care for your animal(s).

Item	Approximate Value

List the items you feed to your animals. Include type of feed, quantity, costs		
Type of Food	Amount Fed	Expense - Value of Feed

List veterinary expenses you had with this project (vaccinations, illness, health certificates, etc.)

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List three new things you have learned about raising birds.

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

What resources did you use to gain more information about your animals? (List people, magazines, newsletters, web sites, etc.)

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Did you give a demonstration in your local 4-H Club? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, list the date given, title of demonstration and number of people present.

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List any tours, workshops, clinics, etc you participated in relating to this project.

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<p><b>You may exhibit in all ten classes offered Two Pen per Class.</b></p>
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**Educational Poster exhibit is due and judged on designated date in exhibit building. Watch the  
Clover Chronicle for this date.**

***\*\* Copy of Receipt Showing date of purchase **MUST** be attached to these pages  
for Broilers, Pullets and Turkeys.***

I understand that the 4-H Livestock Committee may assign a specific location or pen for my animal(s). I understand that I may be subject to additional pen fees due upon time of unloading for my animals.

I further understand that to exhibit at the Allen County Fair is a privilege and that I must adhere to all rules and regulations set forth by the Indiana Board of Animal Health for Exhibition, by the Purdue Extension Service 4-H Youth Development program and the Allen County 4-H Clubs, Incorporated.

4-H Member Signature: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_ Completed 4honline enrollment by January 15, 2025

\_\_\_\_ Completed Fair Entry on line by June 4, 2025

\_\_\_\_ Copy of YQCA Certificate attached