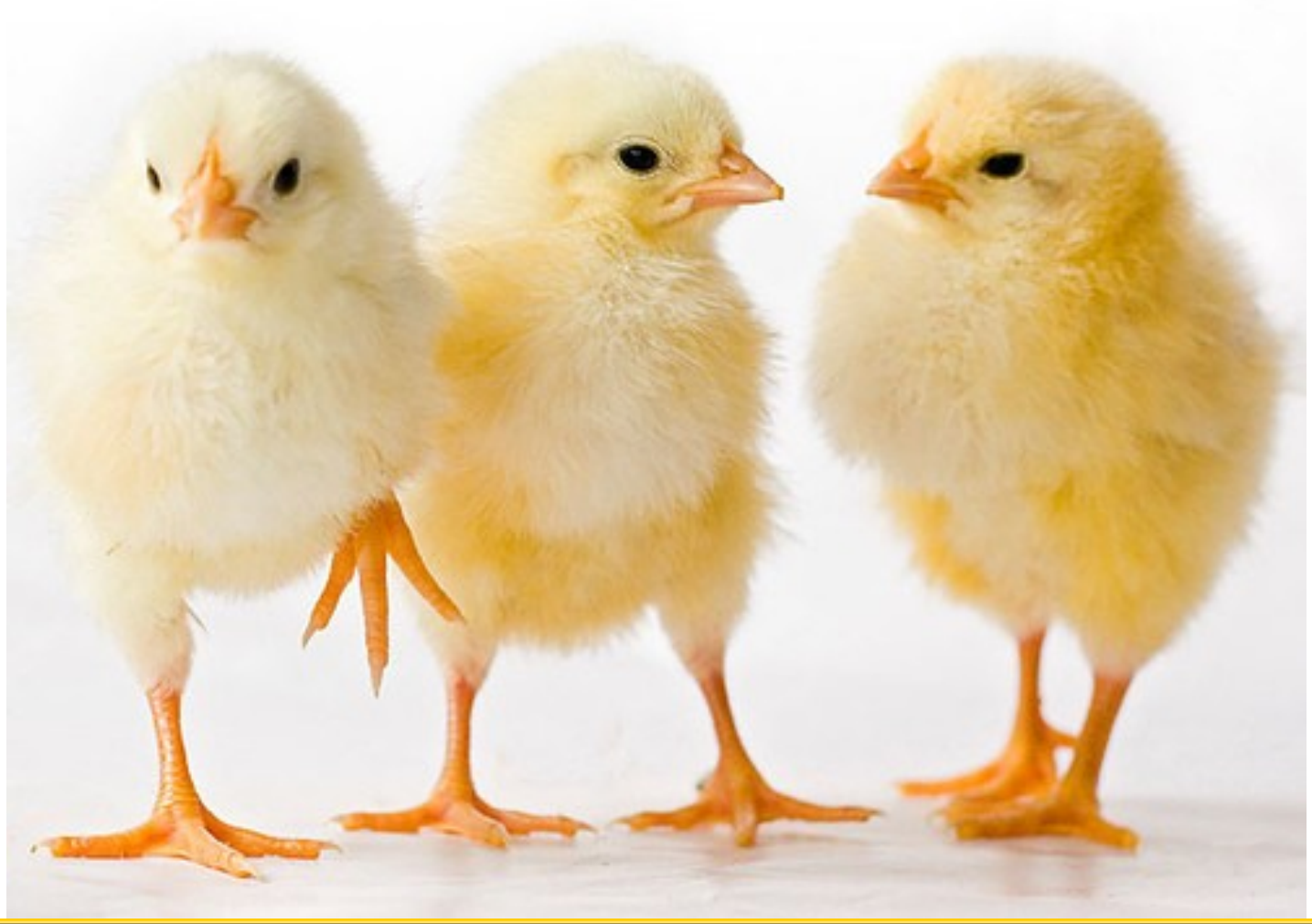
New York Ag in the Classroom

2011
Agriculture Literacy Week



Teacher Resource Guide

Dear Educators,

We'd like to take this opportunity to thank you for welcoming our volunteers into your classrooms to celebrate NY Agriculture Literacy Week and National Agriculture Week.

Every year teachers across NY state open up their doors to celebrate Agriculture Literacy Week. It's no exaggeration to say that there is no way Ag Literacy Week could happen without you. Through your help and feedback, we've been able to introduce new elements every year, and increase participation across the state. We hope that you'll continue to work with us by participating in Agriculture Literacy Week next year March 20-26, 2012.

On behalf of our wonderful county coordinators, and our many partners throughout the state, thank you for your support.

Sincerely,

Heather Davis

Coordinator New York Agriculture in the Classroom

New York Ag in the Classroom

Fostering an Understanding & Appreciation for Agriculture and the Food and Fiber System.

www.nyaged.org/aitc

What's Inside -

Overview of NYAITC

ALW Activities & Worksheets

Poultry Facts

Poultry Resources

REMINDER!!

Fill out the teacher survey and return it to your county coordinator!!

Thank you for your participation, see you next year!

New York Agriculture in the Classroom

NYAITC is a partnership between Cornell University, NYS Department of Agriculture & Markets, NYS Education Department, and New York Farm Bureau. The program operates out of the Department of Education at Cornell University and is funded through the NYS Department of Ag & Markets, and from grants, donations, and specialty license plate fees.

Agricultural Literacy is important for everyone

Getting through the day without agriculture is impossible, yet many people don't understand and appreciate this connection to daily life or the vital role agriculture plays in our economy. While less than 2% of our population is involved in producing food, 20% of our nation's workforce is involved in food processing, marketing, distribution, and sales—and we all eat! A national set of agricultural literacy standards cover the multi-faceted nature of food and fiber systems across the curriculum in the areas of food systems, history, geography, culture, science & technology, the environment, business, economics, nutrition and health.

Bringing Learning to Life

NYAITC offers programs, workshops, classroom visits, and instructional resources through a network of local Cornell Cooperative Extension educators, Farm Bureau volunteers, teachers, and others to help New Yorkers:

- Appreciate the economic, social, historical, and scientific importance of agriculture in our society
- Develop an accurate picture of today's agriculture
- Explore the many career opportunities in all areas of agriculture
- Recognize the connection between agriculture production and the daily consumption of food and fiber products

With a special focus on elementary grades, we help teacher's integrate knowledge about agriculture and the food & fiber system into their curriculum and address NYS learning standards, to provide relevant learning experiences across the curriculum that enhance student achievement and bring learning to life.

New York Ag in the Classroom
418 Kennedy Hall Cornell University
Ithaca, NY 14853
www.nyaged.org/aitc 607-255-9253

Workshops
Workshops are offered for teachers, extension educators and volunteers.

Kids Growing Food
Over 325 school gardens have been started throughout New York connecting students to the food system.

Bluebird Project
A mini-grant program for teachers to foster connections between classrooms and farms and the environment.

I ♥ NY Agriculture Contest
Pre-K-6th grade contest that promotes learning about agriculture through artwork, poems and stories. Students receive prizes as well as recognition at the New York State Fair.

Teacher of the Year
A teacher is recognized each year for outstanding innovation in integrating agricultural concepts into their curriculum.

Ag Literacy Week
Volunteers throughout the state will go into classrooms to read a book with an agricultural theme and talk to students about agriculture. The book will be donated to the school library with a special bookplate recognizing the donor and NY Ag Literacy Week.

Food, Land and People
Food, Land & People is a national science-and social sciences-based Pre-K to 12th grade curriculum. The curriculum consists of 55 hands-on lessons, with subjects ranging from environmental science and stewardship to human populations. NYAITC is the state affiliate for Food, Land & People in New York. We have aligned the 55 lessons with New York State Learning Standards in all curriculum areas.

Ag Literacy Week Activity

<u>VOLUNTEER READERS</u> - *Please* make sure to read through this lesson as well as the book, a few times before your presentation to the class.

<u>Learning Standards:</u>
Living environment: 4.1, 4.3, 4.4, 4.5

<u>Introduction (10 minutes):</u>
Have students sit at desks or in reading area.

1. Introduce yourself and ask the class if they know the meaning of the word "agriculture". Provide them with a simple definition such as "Agriculture– the production of food and fiber through farming and forestry.

2. Discuss briefly your relationship to agriculture and why it is important.

3. Explain that they will be learning about chickens and the products they provide us.

<u>Book Reading (15 minutes):</u>

Read students "Chicks and Chickens" by Gail Gibbons. After reading the story, spend a few minutes discussing why chickens are important to us and how farmers must care for their chickens.

<u>Follow-up Activities (30 minutes):</u>

Materials Needed:
1 set of book pictures for each student (pages 6-10)
Crayons
Scissors (optional)
Stapler
Shredded paper (nest material)

Have students move to their desks

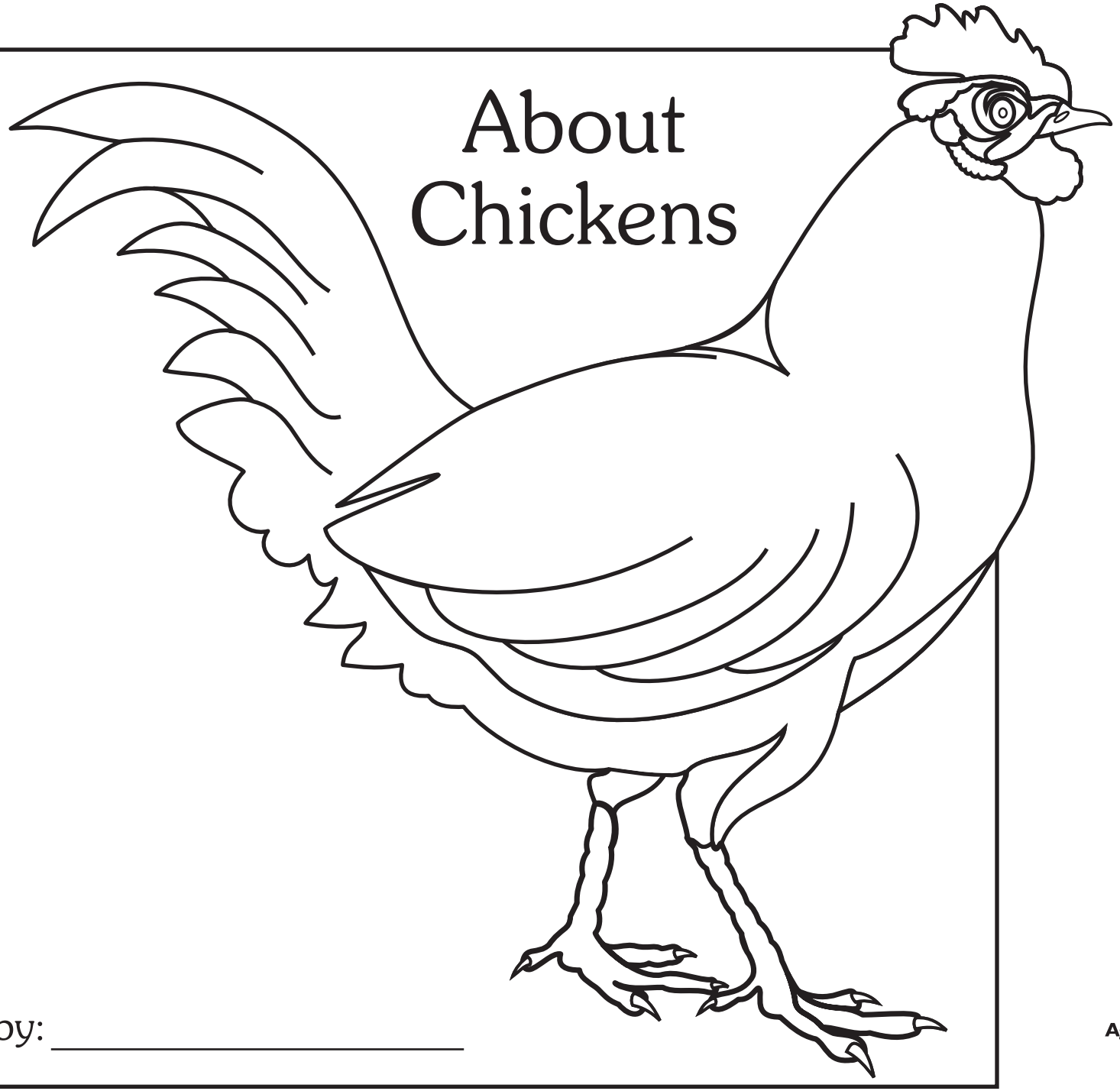
1. Explain to the students that they are going to make their own book about chickens,
2. Read through the facts in the book and help student answer the 2 questions.
3. When they are done with the questions they can color the pictures and then assemble to book by stapling the top left-hand corner

<u>Conclusion(5 minutes);</u>
As a conclusion ask the students:

1. What new thing you learned about chickens surprised you the most?
2. What parts of the chicken did you identify?
3. What would happen if we didn't have chickens?
4. what would happen if we didn't have farmers?

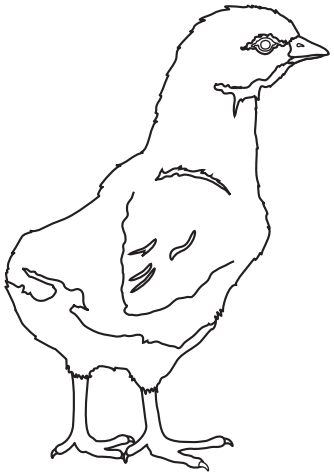
Make sure you give the Teacher Resource Guide and survey to the teacher. The book should be given to the school Librarian.

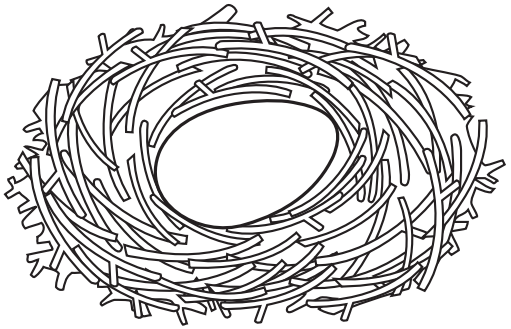
About Chickens



by: _____

Agriculture in the Classroom
UtahStateUniversity
COOPERATIVE EXTENSION

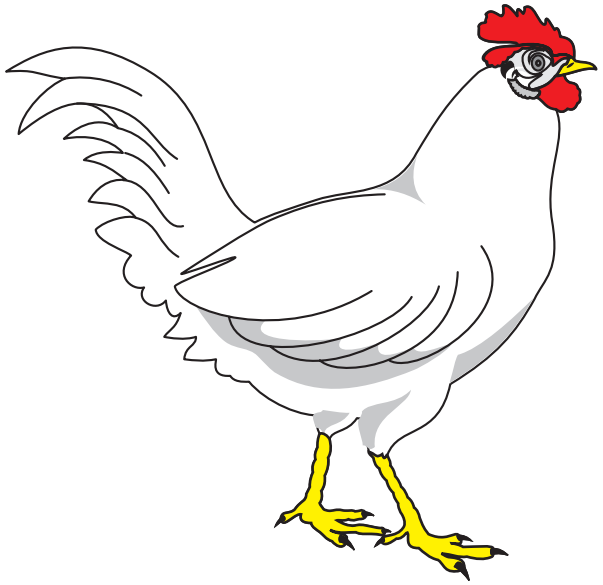




Glue some straw down for the nest.

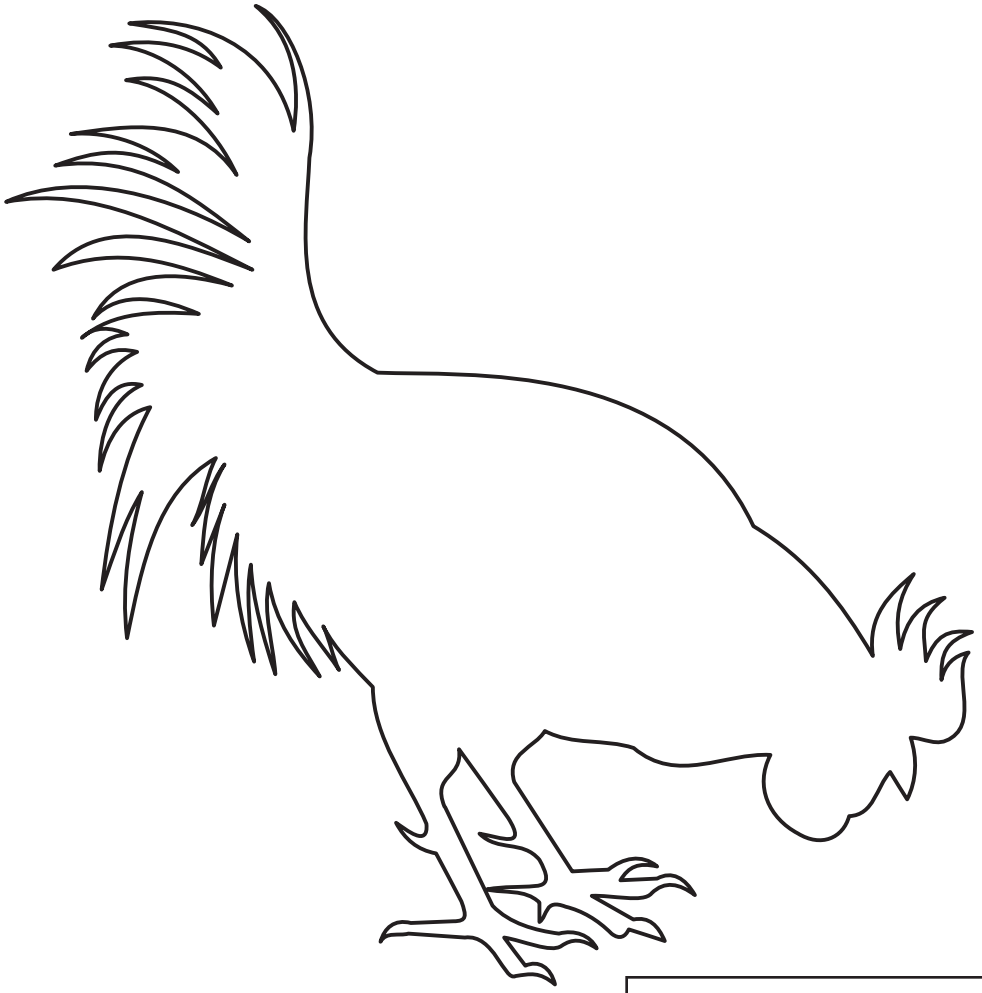
Hens lay about 280 eggs a year. Some eggs go to grocery stores and some become chicks. Chickens make nests out of straw or grass.

I am a ___ ___ ___



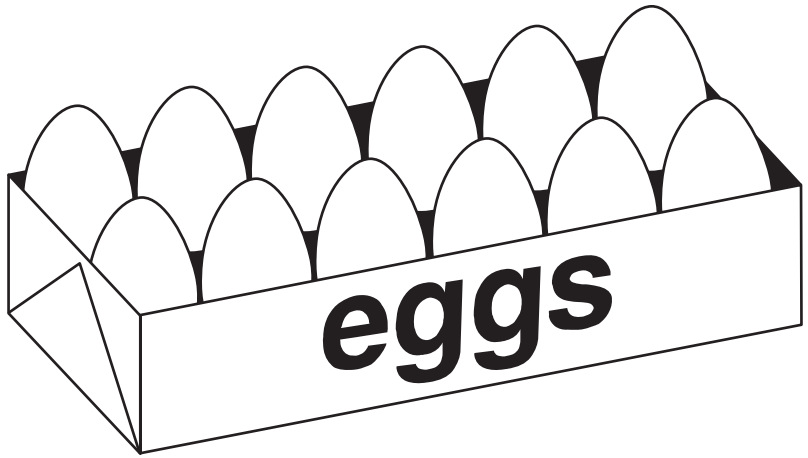
I am a ___ ___ ___ ___ ___ ___ ___

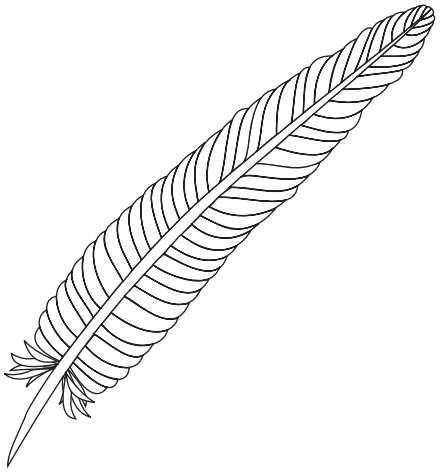
A female chicken is called a hen and a male chicken is called a rooster.

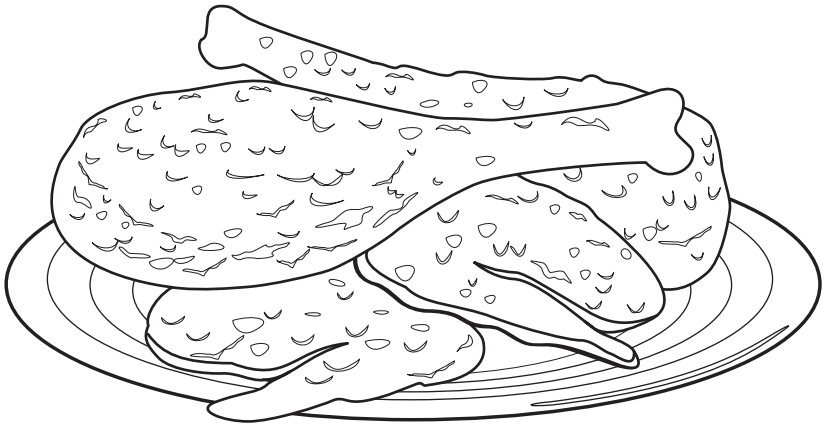


Glue chicken feed here.

Chickens eat grains like corn, millet, and milo. They also eat many bugs and worms.



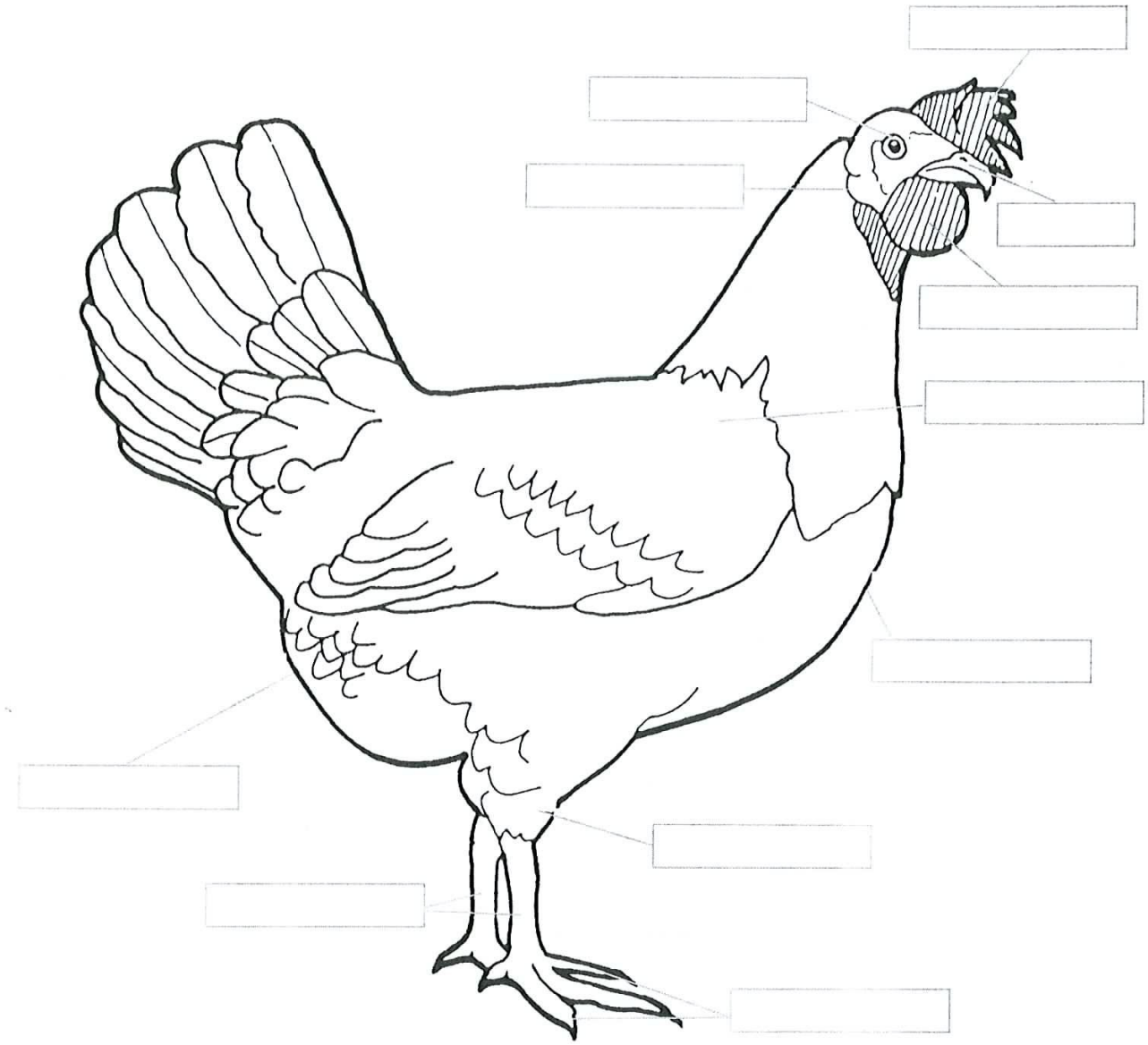




Chickens are useful. They produce eggs and can be used for meat. Their feathers are also used in animal feed (for protein) and as fertilizer for plants.

Parts of a Chicken

Color and label the parts of a chicken.



Use each word only once:

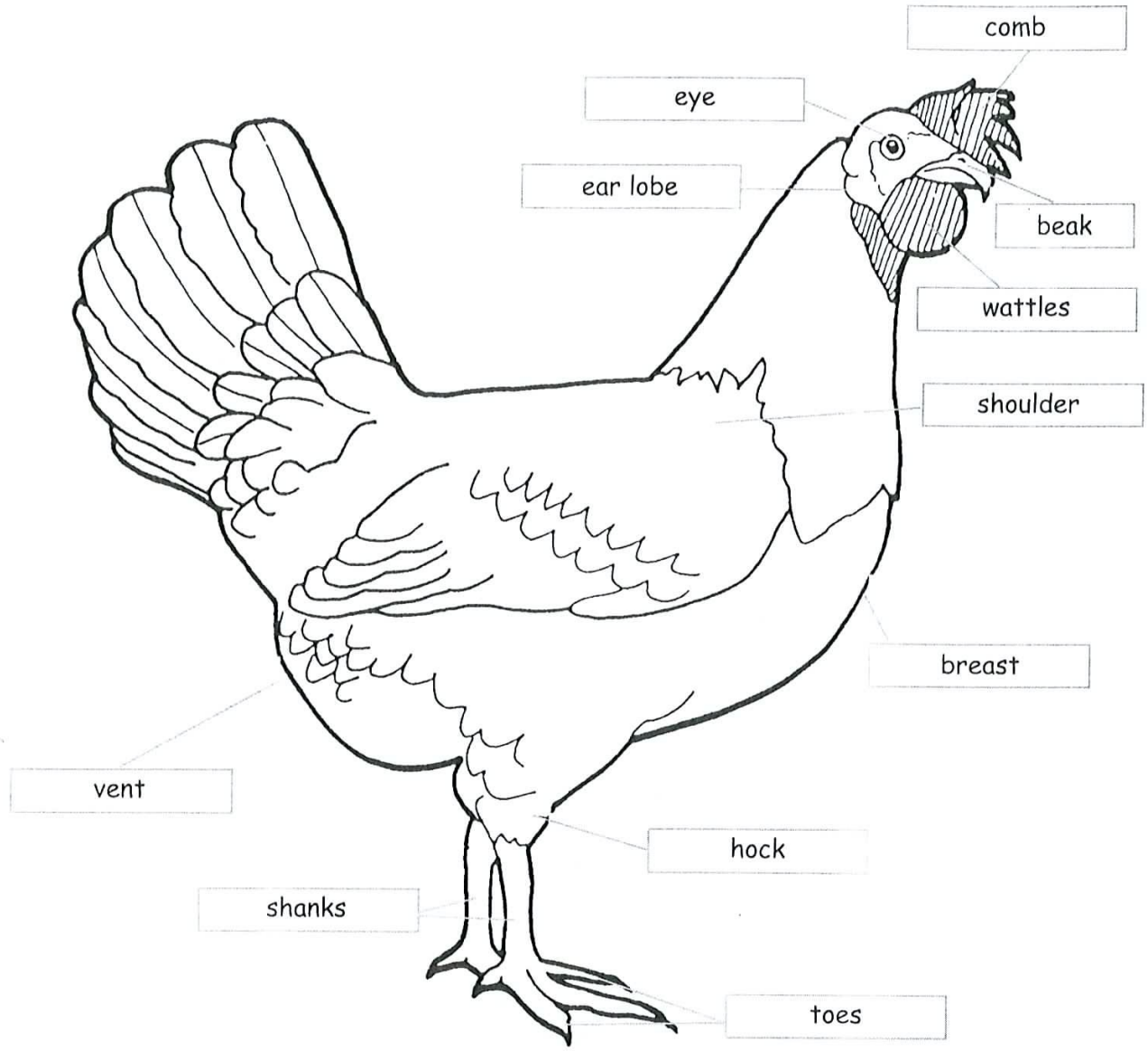
beak	breast	comb	ear lobe
eye	hock	shanks	shoulder
toes	vent	wattles	

This worksheet is part of the Incubation and Embryology Project (http://www.urbanext.uiue.edu/eggs). University of Illinois Extension, 1999.

KEY

Parts of a Chicken

Color and label the parts of a chicken.



Use each word only once:

beak	breast	comb	ear lobe
eye	hock	shanks	shoulder
toes	vent	wattles	

Eggsploring the egg

Embryology skill:
Identifying parts of eggs

Life skill:
Learning to learn

Science skill:
Observing

School subjects supported:
Biology

Preparation time:
20 minutes

Activity time:
20 minutes

What you need:

- ☐ Eggs
- ☐ Copies of Student Activity Sheet "Eggsploring Parts" (page 36)
- ☐ Plates
- ☐ Two glasses or bowls
- ☐ Vinegar
- ☐ Water
- ☐ Receptacle for eggs after the activity

Introduction

Have you ever wondered how the parts of an egg stay separate until you are ready to scramble them for breakfast? Or why there is that stringy thing in the white of an egg?

In this activity, you will learn the parts of the egg and what each part does. Listen carefully, and by the time you are finished, you will be an "eggspert."

Get ready

When buying eggs, allow extra eggs for each group; students may damage eggs they are using before completing all of the activities. If you don't mind a little extra clean-up, let the students break their own eggs. If you want to avoid the mess, break them a few minutes beforehand and put them into plates. (If you break eggs too early, they dry up.)

For the last part of the activity, prepare eggs in vinegar a few days before the class by putting them in bowls or glasses and completely immerse them in vinegar. Allow the eggs to soak in the vinegar solution for up to two days. The shells should dissolve completely. Once the shells dissolve, carefully remove the eggs from the vinegar and place them in a bowl of water.

Do it

1. Allow the class to break up into small groups of three to five students. Each group should have a plate and an egg.
2. Make sure that after handling the raw eggs all students wash their hands to prevent bacterial contamination.
3. In this activity, students are asked to identify parts of an egg using the definitions. Allow time for the students to experiment with finding the structures and complete the "Eggsploring the Parts" sheet *(see activity on page 36)* on their own. Should they need help in locating specific structures, try to ask questions like:
   - *Where would you expect to find the inner thick albumen?*
   - *What might its relationship to the yolk be?*
   - *How might you be able to separate the inner and outer albumen?*
   - *Where would you find the air cell in the eggshell?*
   - *How does each part aid the developing embryo?*
4. Show each group the egg that has been in vinegar so that the students can see the shell membranes.

Reprinted from: Embryology: Hatching Classroom Projects, Grades 2-5, with permission of National 4-H Council

Poultry Activities

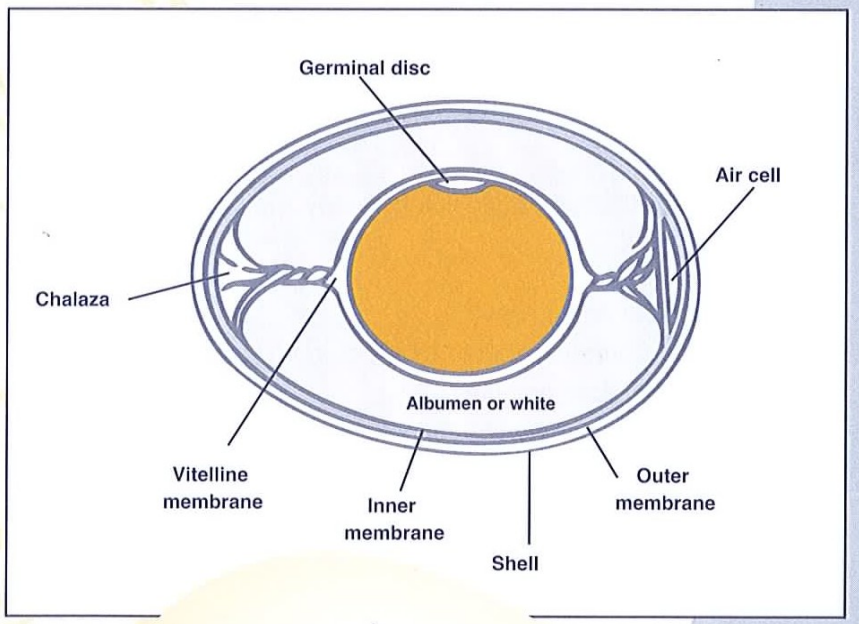
Talk it over

Share
- What new parts did you learn?
- Why is it necessary to wash your hands after working with raw eggs?

Process
- How is each part of the egg important to the development of the embryo?
- What will you do differently the next time you identify egg parts? Why?
- How did the real egg help or hinder learning the parts?

Generalize
- What other ways do you like to learn parts of items? Why?

Apply
- How will your understanding of egg parts affect your use of eggs in the future?



Evaluate it

☐ Can students identify the parts of the egg?

☐ Can students tell how the parts contribute to embryo

Break Out

From a local farm, obtain eggs of different shapes, colors, sizes, with calcium deposits, and with meat and blood spots. Ask the class to examine the eggs, find the differences, learn why the variations occur, and why they normally don't see them in the store.

CONSIDER this

- The 1999 estimate for eggs produced were 192.5 million cases.
- The top 10 egg-producing states are:
  1. Ohio
  2. Iowa
  3. California
  4. Indiana
  5. Pennsylvania
  6. Texas
  7. Minnesota
  8. Georgia
  9. Nebraska
  10. Florida

- *Can your students find the states listed above?*

Other questions you may ask.

- *How might you learn this information in a different way?*
- *What senses did you use? When have you used your senses to learn before?*

ON THE W.W.W.

Visit the AEB Web site at: www.aeb.org

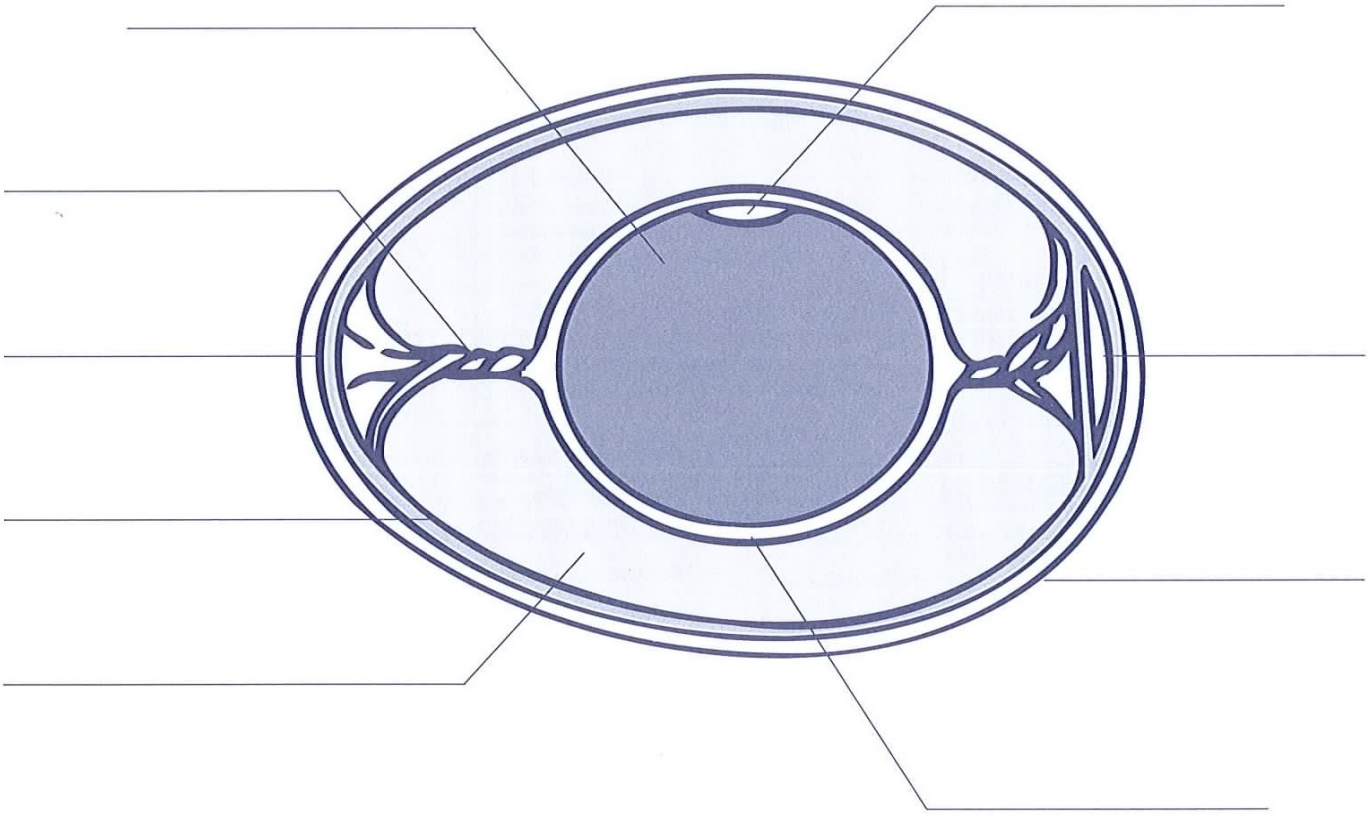
Obtain the record for egg production in one year and the number of eggs that the average consumer uses each year.

Reprinted from: Embryology: Hatching Classroom Projects, Grades 2-5, with permission of National 4-H Council

Eggsploring the parts

Match the name with the egg part and write it on diagram.

air cell	germinal disc	shell
albumen	inner membrane	yolk
chalaza	outer membrane	vitelline membrane



Poultry Activities

Dyeing to DeEGGorate!

Life Skill: Developing creativity
Poultry Project Skill: Using eggs in craft projects
Success Indicator: Completes a craft project using eggs.

Decorating eggs can be a fun and creative activity. Eggs probably have been decorated for thousands of years. They can be decorated with flowers, leaves, jewels, paint, fabric, wax, braid, trim and much more. The limits of egg decorating are defined by your own imagination. Now get ready to be creative and have fun with eggs!

Take off!

Using hard-boiled eggs or shells that have been blown empty, decorate up to a dozen eggs. Record the results of various egg dyes and dyeing techniques as well as draw or attach a photo of your finished decorated egg(s).

My Experiments with Dyeing Eggs

Type of dye used	Color	Mordant used	Results
Walnut shells			
Red cabbage leaves			
Orange peels			
Pear peelings			
Carrot tops			
Onion skins			
Spinach			
Thyme			
Cranberries			

Drawing or photo of my decorated eggs

Put all your eggs in one basket and "WATCH THE BASKET". Mark Twain

Remember to wash your hands well in hot, soapy water before handling eggs at every step, including cooking, cooling, dyeing and decorating.

Reprinted from: Flocking Together Poultry Activity Guide, Poultry 3, with permission of National 4-H Council

Poultry Activities

Share with your helper

Crow about it

- What did you use to decorate your eggs?
- Describe the different ways eggs can be decorated and dyed.

Incubate ideas

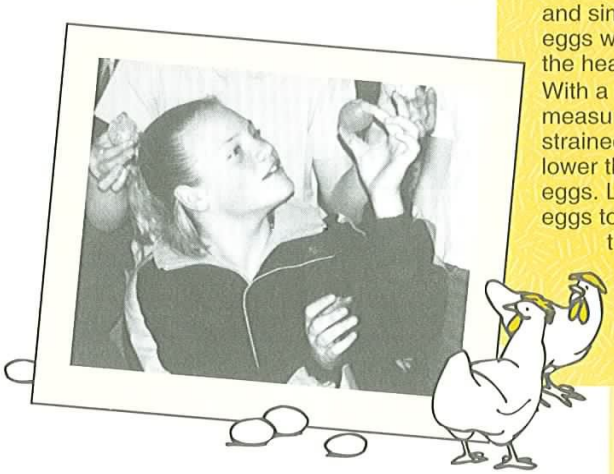
- Why is it important to learn handle eggs gently?
- What is important to know about the dyes you use?
- Which resource(s) were the most helpful, and why?

Spread your wings

- What do you enjoy about crafting?
- How will you use egg crafting in the future?

Un-coop your knowledge

- How will you share what you learned with others?
- Where will you look for new ways to decorate eggs?



On the Web

Bird Words • Mordant

www.n4hccs.org

Fowl Facts Decorating Eggs

Selecting Eggs. To make a decorated egg for a mobile or ornament, use an emptied eggshell. You can also decorate hard-cooked eggs. Hard-cooked eggs are more sturdy and easier to work with than empty shells. Emptied eggshells have nothing inside to spoil, so you can keep them on display for years.

Emptying the Egg. To empty an eggshell, start by washing and drying the egg. Use a needle to prick a small hole in the small end of the egg. Make a larger hole in the large end of the egg. Stick a skewer into the yolk to break it. Enlarge the larger hole. Shake the egg (large-end down) over a bowl until the insides come out, or use a baster to push out the contents. Rinse the empty shell with water, then stand it on end to dry. Before decorating the egg, you can cover the holes in the ends with melted wax or with tissue paper and glue.

Strengthening the Egg. To strengthen a shell before you decorate it, apply a layer of white paper towel and use white glue or wallpaper paste to apply the paper to the egg. Protect the finished design with a coating of thinned white glue, clear nail polish, spray shellac, varnish or craft finish.

Making Dyes. Maybe you would like to dye your eggs! Commercial dyes are available at craft stores. Here are some dyes that can be found in most kitchens:

Pinkish red – Fresh beets, cranberries, radishes or frozen raspberries
Orange – Yellow onion skins
Delicate yellow – Orange or lemon peels, carrot tops, celery seed or ground cumin
Yellow – Ground turmeric
Pale green – Spinach leaves
Green-gold – Yellow Delicious apple peels
Blue – Canned blueberries or red cabbage leaves
Beige to brown – Strong brewed coffee
Brown-gold – Dill seeds
Brown-orange – Chili powder
Grey-purple – Red grape juice or beet juice

Decorating Steps. Ask your helper to assist you as needed. Place one or two handsful of a dyestuff in a saucepan. Add about one cup of water for each handful of dyestuff. Bring the water to a boil. Reduce the heat and simmer for 15–60 minutes until you like the color of the water. The eggs will not dye as dark as the color in the pan. Remove the pan from the heat.

With a fine strainer or cheesecloth, strain the dye mixture into a measuring cup. Add 2 to 3 teaspoonsful of white vinegar for each cup of strained dye liquid. Pour the mixture into a bowl. Use a slotted spoon to lower the eggs into the hot liquid. The liquid should completely cover the eggs. Leave the eggs in the water until you like the color. Rotate the eggs to help them dye evenly. Lift the eggs out with the spoon, then let them dry on a drainer. Eggs colored with natural dyes have a dull finish. After they are dry, you can rub them with cooking oil or mineral oil to give them a soft sheen.

Eggstra Challenges

1. Write a report about the history of egg decorating.
2. Create a photo journal that includes the steps of your egg-decorating project.
3. Create and lead a fun game or a contest that features eggs.

Reprinted from: Flocking Together Poultry Activity Guide, Poultry 3, with permission of National 4-H Council

Poultry Facts-Types of Chickens

Rhode Island Red

Varieties: Single Comb, Rose Comb
Standard Weights: Cock-8-1/2 pounds; hen-6-1/2 pounds; cockerel-7-1/2 pounds; pullet-5-1/2 pounds.
Skin Color: Yellow.
Egg Shell Color: Brown
Use: A dual purpose medium heavy fowl; used more for egg production than meat production because of its dark colored pin feathers and its good rate of lay.
Origin: Developed in the New England states of Massachusetts and Rhode Island, early flocks often had both single and rose combed individuals because of the influence of Malay blood. It was from the Malay that the Rhode Island Red got its deep color, strong constitution and relatively hard feathers.

Characteristics: Rhode Island Reds are a good choice for the small flock owner. Relatively hardy, they are probably the best egg layers of the dual purpose breeds. Reds handle marginal diets and poor housing conditions better than other breeds and still continue to produce eggs. They are one of the breeds where exhibition qualities and production ability can be successfully combined in a single strain. Some "Red" males may be quite aggressive. They have rectangular, relatively long bodies, typically dark red in color. Avoid using medium or brick red females for breeding because this is not in keeping with the characteristics of the breed. Also, don't breed from undersized individuals or birds with black in their body feathers (called "smutt"). Black in the main tail and wing feathers is normal, however. Most Reds show broodiness, but this characteristic has been partially eliminated in some of the best egg production strains. The Rose Comb variety tends to be smaller but should be the same size as the Single Combed variety. The red color fades after long exposure to the sun.

Reference: Chicken Breeds and Varieties (A2880), John L. Skinner, University of Wisconsin-Madison Watt Publishing, 122 S. Wesley Ave., Mt. Morris, IL 61054 USA

Araucana

Egg Shell Color: Blue or Green
Use: A general purpose meat and egg producing variety.
Origin: South America

These fowls were discovered in South America. A few were brought to the U.S. but have been crossed with other chickens so much so that characteristics of size, shape, etc., were dispersed. The trait of laying blue or greenish eggs persisted and now breeders are attempting to standardize the physical makeup of the population and gain them recognition as a breed. Some of the Araucanas were rumpless and possessed some interesting ear tufts. Probably at some time in the future, these fowls will be developed into an interesting breed with both economic and ornamental attributes.

Provided by Michael von Luttwitz

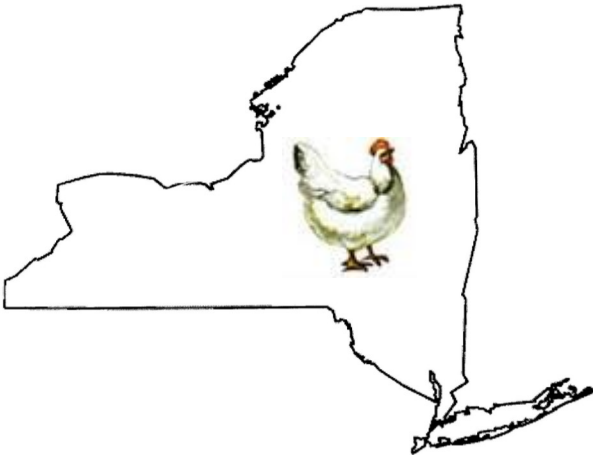
Poultry Facts-Types of Chickens

Single-Comb White Leghorn

Standard Weights: Cock-6 pounds; hen-4-1/2 pounds; cockerel 5 pounds; pullet-4 pounds.
Skin Color: Yellow.
Egg Shell Color: White.
Use: An egg-type chicken, Leghorns figured in the development of most of our modern egg-type strains.
Origin: Leghorns take their name from the city of Leghorn, Italy, where they are considered to have originated.
Characteristics: A small, spritely, noisy bird with great style, Leghorns like to move about. They are good foragers and can often glean much of their diet from ranging over fields and barnyards. Leghorns are capable of considerable flight and often roost in trees if given the opportunity. Leghorns and their descendants are the most numerous breed we have in America today. The Leghorn has relatively large head furnishings (comb and wattles) and is noted for egg production. Leghorns rarely go broody.
Content: Chicken Breeds and Varieties (A2880), John L. Skinner, University of Wisconsin-Madison

Poultry Facts-Importance of Chickens

The Economic Importance of New York's Poultry Industry:



The economic importance of New York's poultry farming is significant.– over $66.4 million. The receipts of New York eggs, ducks, broilers and turkeys plus the receipts for other chickens totaled $82.4 million for 2009. eggs made up $66.4 million of the total. As of October 2010, New York State egg production totaled 100 million eggs and 3.98 million hens and laying pullets. The rate of lay increased 1% to 2,511 eggs per 100 layers. Thus, New York ranks 20th among all egg producing states. This is important agricultural industry provides important jobs and payroll for thousands of people in the state.

Did you know the United States poultry industry is the world's largest producer and 2nd largest exporter of poultry meat?

Poultry Facts -Vocabulary

Rooster– an adult male chicken

Hen– an adult female chicken

Chick– a young chicken

Pullets– female chickens less than 6 months old

Cockerels– male chickens less then 1 year old

Bantam-a miniature fowl, can a miniature breed or a large breed that is one-fourth to one-fifth of the normal weight

Broiler– a young chicken, either male or female, grown for production of meat

Cornish Game Hen-a chicken, less than 30 days of age, weighing approx. 2 pounds, prepared for consunption

Breed– a group of animals that shares many of the same features. In chickens, it can be types of combs, skin colors, feather colors or patterns

Preening– is when chickens clean their feathers with their beaks

Feathers– the coat of an adult chicken

Down-the fluffy feathers that cover a chick

Comb– the soft , red skin on top of a chicken's head

Roosting– a perch , off the ground, upon which chickens sleep on

Flocks– small groups of chickens

Pecking order– the ranking of chickens within a flock

Life Cycle– the story of how an animal changes from birth to death, and how it produces young

Nest-a safe place that birds make where they can lay their eggs

Clutch– any group of eggs in a nest

Egg– the product of a chicken. If fertilized, it contains a baby chicken surrounded by yolk and albumen

Eggshell-the outer covering of the egg that provides protection to the rest of the egg

Shell-the hard outside of an egg

Pores-miniature openings in the shell of an egg through which gases are exchanged

Yolk– the yellow portion of an egg; a major source of vitamins, minerals and almost half of the protein

Incubate-to maintain favorable conditions for developing and hatching eggs

Incubator-a box which maintains a constant temperature and is used to hatch eggs

Embryo (EM-bree-o)-an animal in the earliest stages of development

Blastodisc– location in which an embryo will develop if the egg is fertilized. If fertilized, it is called a blastoderm

Fertilize– when a special cell from a male joins a female's egg to form a new living thing

Ovary– a female chicken body part from which egg cells are formed

Oviduct-the female chicken body part by which egg cells travel from the ovary

Albumen (al-Bew-men)- clear jelly-like fluid found inside an egg that is the major source of egg riboflavin and protein. - Also called the white of an egg

Chalaza-cord-twisted strand in the albumen that anchors the yolk in the center of the egg

Candling-shining a bright light through an egg in order to observe its interior

Air Cell– pocket of air formed at the large end of the egg between the shell membranes that increases in size with age

PIP– the first break in a shell

Egg Tooth– a tiny tooth-like point on the tip of a chick's beak which is used to break out of the egg

Hatching-is when a chick breaks out of its shell

Brood-a group of newly hatched chicks

Brooding– the care given by a hen to an egg during the incubation and the first 4 weeks after the chicks hatch

Poultry Facts-Did you know?

- Male chickens come in may sizes from 12 pounds down to 22 ounces.
- Poultry is domestic fowl, such as chickens, turkeys, ducks, ostriches, emus, quail, pheasants, or geese, raised for meat or eggs.
- There are over 150 breeds of poultry and 340 different color combinations.
- Chickens may have either 4 or 5 toes depending on the breed.
- Chickens are probably the most common bird in the world and are raised on every continent.
- Humans started keeping chickens over 10,000 years ago.
- Roosters not only crow in the a.m. but crow at various times during the day. The crow is a symbol of territory. Chickens crow to mark territory.
- It takes 23-32 hours to form an egg.
- The common commercial egg flocks of hens in the Untied States lay an average of 260 eggs per hen in a year and number over a million birds are in commercial egg production each year.
- Chickens play a big part of our old folk tales. Have you heard of Little Red Hen, Henny Penny and Chicken Little?
- A hen must eat 3.5 pounds of feed to make a dozen eggs.
- The grit birds ingest help grind the food in their gizzard, thereby performing some of the same tasks as our teeth.
- All eggs that make it to the grocery store have been candled.
- When eggs are laid, they are approximately 107degrees F, because that is the body temperature of the hen
- The incubation period for a fertilized chicken egg is 21 days
- Do you know an egg shell has approximately 7,000 pores?
- Through the pores, carbon dioxide is expelled, replaced b y atmospheric gases-including oxygen
- The shell of an egg is composed mainly of calcium carbonate, which is similar in make up to chalk
- Breeds of chickens with white feathers and ear lobes lay white eggs; breeds with red feathers and ear lobes lay brown eggs.
- The avian egg is considered a marvel of nature's architecture
- After hatching the chick loses the egg tooth after a few days
- It takes on average 4 to 12 hours for a chick to completely emerge from the shell after hatching
- When a hen is setting on eggs, the eggs are heated to 100-101 degrees F.
- While setting on eggs, the hen turns her eggs by using her beak to scoop under the eggs and rolls it toward her
- Imprinting is a natural instinct in birds. It occurs when newly hatched birds bond to the first thing they see. They usually imprint on their mother. The strong bond encourages the baby birds to follow their mother to food, water and safety. Imprinting is a beneficial phenomenon because it makes baby birds stay close to their mother, who can help track and protect them.
- The largest single chicken egg ever laid weighed one pound with a double yolk and double shell
- Chickens swallow their food without chewing and then it is ground up in their gizzard
- Chickens need grit in their diet to produce eggs
- Ever wonder why we decorate eggs? Painted, edible eggs were given to a Chinese chieftain in 722 BC to celebrate Spring. In the 13th century, eggs with intricate religious symbols were common.
- Moravian and Ukranian eggs are treasured for their geometric designs.
- The most famous egg decorator is probably Peter Carl Faberge II. He decorated eggs using crystal, gold, and other precious materials from 1884-1916. His beautiful eggs were used by czars as gifts to royalty.

Poultry Facts - Nutrition

Cooking and Eating Eggs

Eggs can be poached, boiled, pickled fried, baked or scrambled. Common recipes featuring eggs include omelets, egg salad, deviled eggs, quiche, eggs benedict, and soufflés. Eggs are an important past of many other recipes too, because they help thicken mixtures, bind ingredients together and leaven baked goods.

Nutritionally, one large egg provides 70 calories plus about six grams of protein and significant amounts of other vitamins.

Eggs are an inexpensive source of high quality protein. The protein in egg whites is the "ideal standard" against which all other types of protein are measured. It contains all essential amino acids in the proper amount and proportion to meet human's nutritional requirements.

Other Nutrients	**Percentage of Recommended Daily Value**
Total fat	7%
Saturated fat	8%
Cholesterol	71%
Sodium	3%
Potassium	2%
Protein	10%
Vitamin A	6%
Calcium	2%
Iron	4%
Thiamin	2%
Riboflavin	15%
Vitamin B6	4%
Folate	6%
Vitamin B12	8%
Phosphorous	8%
Zinc	4%
Vitamin D	6%
Vitamin E	3%

Source: Egg Nutrition Center, 1819 H. St., NW, Suite 520, Washington, DC 20006

Egg Food Safety Tips

- For cooking and eating, use only properly refrigerated, clean eggs with unbroken shells.
- Buy eggs from refrigerated cases and keep eggs refrigerated at home.
- Eggs can be stored safely at 40 degrees F for up to six weeks
- Wash and dry eggs before using for any purpose, and wash your hands after handling eggs.

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Poultry Facts-Products

Chicken Soup	by-product
Chicken Broth	by-product
Chicken Bouillon cubes	by-product
Whole fryers	major product
Whole Roasters	major product
Parts-backs, breasts, thighs,\ wings, drumsticks	major product
Giblets-livers, gizzards, hearts	by-products
Eggs	major products
Eggnog	specialty product
Turkey jerky	specialty product
Chicken Gravy	by-product
frozen dinners and entrees	major product
Deli meats	major product
Canned chicken	major products
Microwaveable meals or snacks	major products
Turkey Sausage	by-product
Poultry Hot dogs	by-product
Ground Turkey	major product
Deli fried chicken	specialty product
Frozen breakfast sandwiches	specialty product
Low cholesterol egg products	specialty product
Chicken feet	by-products
Wing tips	specialty product
Egg drop soup	specialty product

Non-grocery items:

Feather pillows	by-product
Chicken manure (used as fertilizer)	by-product

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Utah Agriculture in the Classroom. "About Chickens" https://utah.agclassroom.org/files/uploads/aboutbooks/chicken.pdf

Poultry Resources - Websites & Books

Websites

Cornell University Department of Animal Science
http://www.ansci.cornell.edu

Feathersite.com
http://www.feathersite.com/poultry/BRKIncubation.html

McMurray Hatchery
http://www.mcmurrayhatchery.com

U of Illinois Ext. Incubation & Embryology Resources
http://www.urbanext.uiuc.edu/eggs/

U of Illinois Urbana-Champaign - Chickschope 1.5
http://lancaster.unl.edu/4h/Embryology/Resources.htm

Oklahoma University - Breeds of Poultry
http://www.ansi.okstate.edu/poultry/

U of California CE - Egg Breakout Poster
http://animalscience.ucdavis.edu/Avian/pfs32.htm

Penn State Department of Poultry Science
http://ulisse.cas.psu.edu/ext/Default.html

U of Nebraska Lincoln - 4-H Poultry
http://lancaster.unl.edu/4h/Embryology

U of Nebraska Cooperative Ext. - Egg Cam
http://lancaster.unl.edu/4h/Embryology/EggCamera.htm

American Poultry Association
http://www.ampltya.com

The Coop
http://www.the-coop.org/index.html

My Pyramid
http://www.MyPyramid.gov

Books

Non-Fiction

Egg to Chick, Millicent Selsam
Chickens Aren't the Only Ones, Ruth Heller
The Egg, Shelley Gill & Jo Ellen Bosson
The Chicken or the Egg, Allan Fowler
Who's Hatching, Charles Reasoner
Ducks Don't Get Wet, Augusta Golden & Helen K. Davie
Ducks, Gail Gibbons
See How They Grow: Chick, Jane Burton
Egg: A photographic Story of Hatching, Robert Burton
Inside an Egg, Sylvia Johnson (Lerner Natural Science)
A Nest Full of Eggs, Priscilla Belz Jenkins
From Egg to Chicken, Dr. Gerald Legg
From Egg to Chicken, Robin Nelson
Chickens Have Chicks, Lynn Stone
Chickens on the Farm, Mari Schuh
Ducks on the Farm, Mari Schuh
Face-to-Face With The Chicken, Christian Harvard
Farm Animals - Turkeys, Holly Enders
Geese on the Farm, Mari Schuh
Turkeys on the Farm, Mari Schuh
What's for Lunch, Eggs, Claire Llewellyn
Where do Chicks Come From?, Amy Sklansky
Egg to Chicken, Camilla de la Beydoyere
Looking at Life Cycles, Victoria Huseby

Fiction

Just Plain Fancy, P. Polucco
Bentley & the Egg, W. Joyce
An Extraordinary Egg, L. Lionni
Just You and Me, S. McBratney
Rechenka's Eggs, P. Polacco
The Easter Egg Farm, M. J. Auch
Mule Eggs, C. DeFelice
Chicken Sunday, P. Polacco
The Chicken Sisters, L. Numeroff
Gemma and the Baby Chick, Antonia Barber
Mrs. Hen's Secret: A Squeaky Surprise!, Cathy Beylon
Are You My Mommy?, Carl Dijs
Across the Stream, Mirra Ginsburg
The Chick and the Duckling, Mirra Ginsburg
Good Morning, Chick, Mirra Ginsburg
The Most Wonderful Egg in the World, Helme Heine
Down on Casey's Farm, Sandra Jordan
Here a Chick, There a Chick, Bruce McMillan
Our Animal Friends, Alice & Martin Provenson
Dora's Eggs, Julie Sykes