

Unit E: Segments of Animal Agriculture

Lesson 3: Exploring the Poultry Industry

Student Learning Objectives: Instruction in this lesson should result in students achieving the following objectives:

1. Describe poultry as organisms and identify external parts.
2. Identify poultry terminology.
3. List and describe kinds and breeds of poultry.

Recommended Teaching Time: 3 hours

List of Resources: The following resources may be useful in teaching this lesson:

Ensminger, M. E., *The Stockman's Handbook*. Danville, Illinois: Interstate Publishers, Inc. 1992

Cooper, Elmer L., Burton, DeVere L., *Agriscience Fundamentals and Applications*. Albany, New York: Delmar. 2002 (Textbook Unit 29)

Internet keywords: fowl, poultry, pullet, duck, chicken, turkey, geese, ratite, swan, peafowl, egg

List of Equipment, Tools, Supplies, and Facilities:

Writing surface
PowerPoint Projector
PowerPoint Slides
Transparency Masters
Copies of student lab sheet

Terms: The following terms are presented in this lesson (shown in bold italics): **PowerPoint Slide 2.**

Bantams	Pullets
Broilers	Roosters
Chick	Tom
Cockerels	
Drake	
Duckling	
Gander	
Goose	
Gosling	
Hens	
Layers	
Poult	
Poultry	
Pullet producers	

Interest Approach. Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here.

Collect a variety of eggs from chickens raised in your area. Display eggs on a safe surface to show the different colors, grades, and weight classes. Start a discussion asking students to think of reasons that the eggs may be different.

Summary of Content and Teaching Strategies

Objective 1: Describe poultry as organisms and identify external parts.

Anticipated Problem: What is poultry?

Ask students to create a list of places they have seen poultry. Are these places different or similar to places that we would see other livestock?

- I. **Poultry** is the group name for all domesticated birds used for meat, eggs, and feathers. Poultry are also referred to as birds and fowl. These birds have wings, backbones, and feathers; some can even swim. **PowerPoint Slide 3.**
 - A. The main difference between poultry and other animals is they have different digestion and reproduction systems. Their digestive system includes a gizzard to make up for not having teeth. Reproduction entails egg laying after mating for fertile eggs. Another interesting point on poultry reproduction is that artificial insemination is needed because some birds are unable to mate naturally because of their mass of flesh. Turkeys are the best example.
 - B. Externally, most birds are very similar. There are features on the head and neck of birds that help to identify them. **PowerPoint Slide 4.**

Use TM: 3-1 and PowerPoint Slides 5, 6, 7, and 8 to point out features that help identify birds and to show the parts of a male chicken. Also, have students sketch some of the slides into their notes. Be sure that students label all important parts of the picture.

Objective 2: Identify poultry terminology.

Anticipated Problem: What are terms associated with poultry?

Have a list of poultry terms displayed on the writing surface. Ask how many students can define at least 5 words. Have a few students define some terms and lead into objective 2.

- II. In order to discuss poultry, there are some terms that you will need to know.
 - A. Chickens are classified as layers or broilers. **Layers** are chickens that are used to produce large quantities of eggs. Eggs are used for food and to produce chicks. **Broilers** are young chickens that weigh about 1.81 kilograms, are 6 to 7 weeks old, and are used for meat because they are tender.
 - B. Chickens are grouped by sex and age. A baby chicken of either sex is called a **chick**. Young male chickens are called **cockerels**. Mature males are called **roosters**. Young female chickens are called **pullets**. Mature females are called **hens**. Hen also refers to a mature female duck, turkey, and pheasant. Miniature chickens are called **bantams**.

- C. Turkeys also have names for specific types. An adult male turkey is called a **tom** or a gobbler. A young turkey of either sex is a **poult**.
- D. Ducks have down that grows under the feathers. **Drake** refers to mature male ducks. **Ducklings** are young ducks of both sexes.
- E. Young geese are referred to as **goslings**. The male at maturity is called a **gander**. A female at maturity is called a **goose**.

Use TM: 3-2 and PowerPoint Slides 9, 10, and 11 to discuss poultry terminology.

Objective 3: List and describe kinds and breeds of poultry.

Anticipated Problem: What are different kinds and breeds of poultry?

III. Breeds of poultry are important to know in order to make an intelligent decision as to what type of bird to raise.

- A. There are four classes of chickens.
 1. Mediterranean
 2. American
 3. English
 4. Asiatic

They have characteristics to identify them including color of eggs, skin, eyes, earlobes, and plumage. **PowerPoint Slides 12, 13, and 14.**

- B. Turkeys come in many varieties, but the Broad Breasted Large White is the most commonly grown bird. It was developed from crosses. The males have black beards and all birds have white feet, beaks, and shanks. **PowerPoint Slide 15.**
- C. Duck breeds used for meat include the Call, Swedish, Rouen, White Pekin, Aylesbury, Muscovy, and Cayuga. Egg-laying breeds include Khaki Campbells and Indian Runners. The White Pekin is the most commonly used bird for meat production. White Pekins weigh 3.6 kilograms at maturity and originated in China. They are white feathered with yellow skin. They are nervous birds that have white-tinted eggs. **PowerPoint Slides 16 and 17.**
- D. Geese are also raised around the world. They are used for meat, eggs, feathers, down, and weeding crops. The five most common breeds of geese are:
 1. Toulouse
 2. Embden
 3. Chinese
 4. Pilgrim
 5. African

PowerPoint Slide 18.

Use TM: 3-3 as an overhead or handout to discuss characteristics of common chicken breeds.

Review/Summary: Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. First, have students describe poultry as organisms and identify external parts. Then, have students define poultry terminology. Finally, have students list and describe kinds and breeds of poultry.

Application: Application can involve student activity in incubating eggs and hatching chicks.

Evaluation: Evaluation should focus on student achievement of the objectives for each lesson. Various techniques can be used, such as performance on the application activities. A sample written test is attached.

Answers to Sample Test:

Part One: Matching

1 = a, 2 = h, 3 = d, 4 = e, 5 = b, 6 = c, 7 = f, 8 = g

Part Two: Completion

1. Roosters
2. Hens
3. Layers
4. poult
5. goslings
6. Broilers

Part Three: Short Answer

Refer to poultry breeds for answer.

Test

Part One: Matching

Instructions. Match the term with the correct response. Write the letter of the term by the definition.

- | | | |
|------------|-------------|--------------|
| a. Bantams | d. Chick | g. Cockerels |
| b. Drake | e. Duckling | h. Gander |
| c. Poultry | f. Goose | |

- _____ 1. Miniature chickens.
- _____ 2. Male geese at maturity.
- _____ 3. A baby chicken of either sex.
- _____ 4. Young ducks of both sexes.
- _____ 5. Mature male ducks.
- _____ 6. The group name for all domesticated birds used for meat, eggs, and feathers.
- _____ 7. Mature female geese.
- _____ 8. Young male chickens.

Part Two: Completion

Instructions. Provide the word or words to complete the following statements.

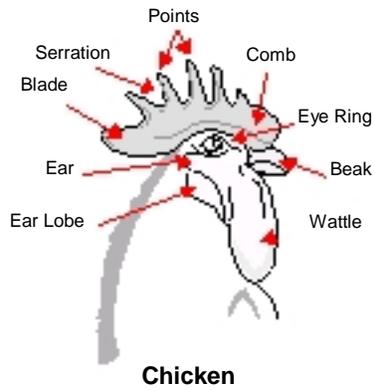
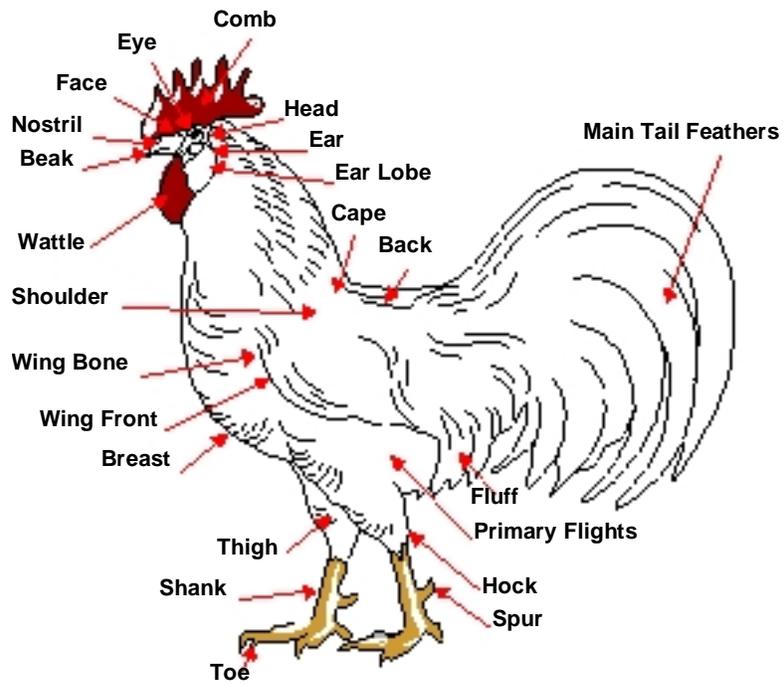
- 1. _____ are mature male chickens.
- 2. _____ are mature female chickens.
- 3. _____ are chickens that are used to produce large quantities of eggs.
- 4. A young turkey of either sex is a _____.
- 5. Young geese are referred to as _____.
- 6. _____ are young chickens that weigh about 1.81 kilograms, are 6 to 7 weeks old, and are used for meat because they are tender.

Part Three: Short Answer

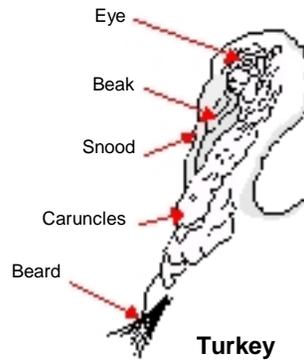
Instructions. Provide information to answer the following question on the back of the test paper.

Explain what breed of poultry you would produce and why.

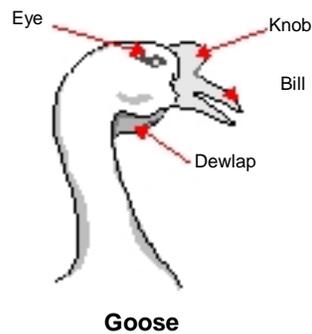
TM: 3-1



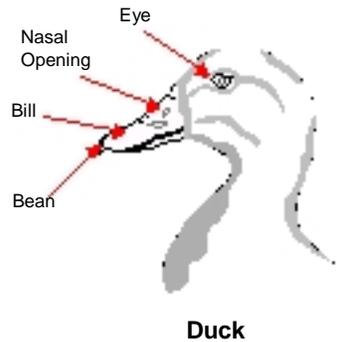
Chicken



Turkey



Goose



Duck

POULTRY TERMINOLOGY

- **Layers are chickens that are used to produce large quantities of eggs.**

Broilers are young chickens that weigh about 4 pounds, are 6 to 7 weeks old, and are used for meat because they are tender.

A baby chicken of either sex is called a chick.

Young male chickens are called cockerels.

Mature males are called roosters.

Young female chickens are called pullets.

Mature females are called hens.

Miniature chickens are called bantams.

An adult male turkey is called a tom or a gobbler.

A young turkey of either sex is a poult.

Drake refers to mature male ducks.

Ducklings are young ducks of both sexes.

Young geese are referred to as goslings.

Male geese at maturity are called ganders.

A female geese at maturity is called a goose.

TM: 3-3

CHARACTERISTICS OF SOME TYPICAL BREEDS OF CHICKENS

Class and Breed	Eggs	Skin	Comb	Eyes	Earlobes	Shanks	Plumage
Mediterranean:							
Leghorn (White)	White	Yellow	Single	Reddish bay	White	Yellow	White
Comments: All three are small in size and are used mainly for egg production—Leghorn most popular							
Minorca (Black)	White	White	Single	Brown	White	Dark Slate	Black
Andalusian (Blue)	White	White	Single	Reddish bay	White	Dark Slaty Blue	Slaty Blue
American:							
Plymouth Rock (Barred)	Brown	Yellow	Single	Reddish bay	Red	Yellow	Barred (Sex-linked)
Comments: Dual purpose; used in crosses for sexing chicks at hatching.							
Plymouth Rock (White)	Brown	Yellow	Single	Reddish bay	Red	Yellow	White
Comments: Primary Use—Broiler							
New Hampshire	Brown	Yellow	Single	Reddish bay	Red	Yellow	Red
Comments: Primary Use—Broiler							
Rhode Island Red	Brown	Yellow	Single	Reddish bay	Red	Yellow	Dark Red
Comments: Dual Purpose							
English:							
Cornish (White)	Brown	Yellow	Pea	Pearl	Red	Yellow	White
Comments: Used in development of male lines for crossbreeding.							
Australorp	Tinted	White	Single	Brown	Red	Dark Slate; Bottom feet white	Black
Comments: Used in production of crossbreeds.							
Asiatic:							
Brahma (Light)	Brown	Yellow	Pea	Reddish bay	Red	Yellow; feathered	Columbian (white & black)
Comments: Used in crossbreeding for meat production.							