



# Hen To Home

## Objectives

1. Students will learn that chickens are produced for two different reasons, broilers for meat and layers for eggs .
2. Students will learn how broilers and layers are housed and cared for.

## Grade Level

1-3

4-6

## TEKS:

R- 1.1B,D,E;1.11A,B;1.17G;1.21B  
 R- 2.1B,D,E;2.7B;2.8A,B;2.10B;  
 2.12D,E,G;2.15C;2.17B  
 R-  
 3.1B,D,E;3.7B;3.8A;3.12E;3.16E;3.17C  
 S- 1.5A;1.6A,B;1.9A,B  
 S- 2.5A;2.9A,B  
 S- 3.1A; 3.2A-E;3.9A  
 SS- 1.9A,B;1.18B  
 SS- 2.8A,C;2.10A,C;2.17D;2.18B  
 SS- 3.6A,3.16E

R- 4.10K;4.13C,E;4.16B  
 R- 5.9A,E;5.10K;5.13C,D,E;  
 5.16B; 5.21C  
 R- 6.9A,E;6.10K;6.13C,D,E;  
 6.16B; 6.20C,D  
 S- 4.1A; 4.2A-E;4.8A,  
 S- 5.1A; 5.2A-E;5.9A  
 SS- 4.6B;4.9B;4.13A,B;4.14B  
 SS- 5.9B;5.13B;5.25A  
 SS- 6.21B

## TAKS:

### GRADE

### OBJECTIVES

Reading	3, 4, 5, 6	1, 4
Writing	4	1, 4, 5, 6
Science	5	1, 2
Math	3, 4, 5, 6	4, 5

## Assessment Summary:

- Objective 1: Students will complete multiple choice quiz after reading the grade appropriate background material.
- Objective 2: Students will complete sequencing activity "From Hen to Home."
- Writing: Have students write an informative essay about the job of a broiler producer, or an egg producer, describing the steps in the process.
- Project: Have students write the Texas Poultry Federation, Pilgrims Pride, Tyson's, Sanderson Farms or other poultry companies ,for information about poultry production. Addresses are in the Extension section of lesson plan.

## Background

Information: Included in Lesson



# Hen To Home

## Procedure

### 1. Introduce new vocabulary:

#### Grades 1-3

Poultry	Laying house
Hen	Brooder
Rooster	Feeder
Broiler	Waterer
Layer	Litter
Broiler house	

#### Grades 4-6

Candle
Spent hen
Clutch

## Activities

2. Open lesson by having students list on the board as many products as they can think of that come from poultry, primarily chickens and turkeys. Eggs, fried chicken, nuggets, etc.

3. Read the background material and discuss the different types of chickens raised by producers today, broilers and layers. Using story books from the school library read how farm children gathered eggs as part of their daily chores.

4. Grades 1-3: Have students complete the activities "A Poultry Farm" and "An Egg Farm" by reading the information and completing the multiple-choice questions. The teacher may need to read the information aloud for younger students.

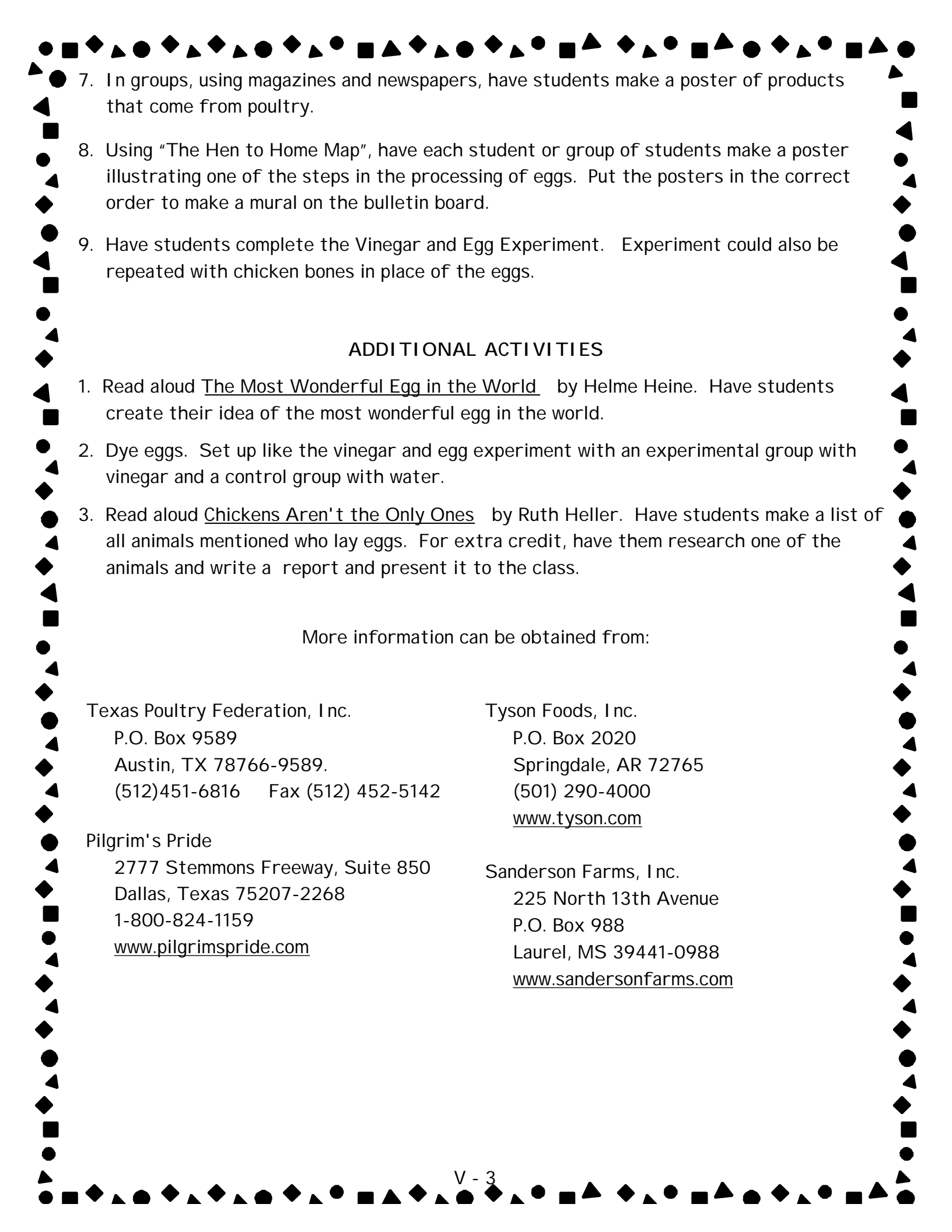
Grades 4-6: Have students complete the activity "Two Different Kinds of Poultry Farms" by reading the information and completing the multiple choice questions.

5. Grades 1-3: Have students complete "Chicken and Egg Game" and grade appropriate "Out of Place."

Grades 4-6: Have students complete grade appropriate "Out of Place" and "Secret Code Game".

6. Have students complete the activity, "Food for Thought". As a whole class activity, make a bar graph on the chalkboard based on their preferences.

Extension activity for Grades 4-6: Have each child survey 5 adults using the same form. Compile their information and make a bar graph on the chalkboard based on their findings.

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7. In groups, using magazines and newspapers, have students make a poster of products that come from poultry.
  8. Using "The Hen to Home Map", have each student or group of students make a poster illustrating one of the steps in the processing of eggs. Put the posters in the correct order to make a mural on the bulletin board.
  9. Have students complete the Vinegar and Egg Experiment. Experiment could also be repeated with chicken bones in place of the eggs.

### ADDITIONAL ACTIVITIES

1. Read aloud The Most Wonderful Egg in the World by Helme Heine. Have students create their idea of the most wonderful egg in the world.
2. Dye eggs. Set up like the vinegar and egg experiment with an experimental group with vinegar and a control group with water.
3. Read aloud Chickens Aren't the Only Ones by Ruth Heller. Have students make a list of all animals mentioned who lay eggs. For extra credit, have them research one of the animals and write a report and present it to the class.

More information can be obtained from:

Texas Poultry Federation, Inc.  
P.O. Box 9589  
Austin, TX 78766-9589.  
(512)451-6816 Fax (512) 452-5142

Tyson Foods, Inc.  
P.O. Box 2020  
Springdale, AR 72765  
(501) 290-4000  
[www.tyson.com](http://www.tyson.com)

Pilgrim's Pride  
2777 Stemmons Freeway, Suite 850  
Dallas, Texas 75207-2268  
1-800-824-1159  
[www.pilgrimspride.com](http://www.pilgrimspride.com)

Sanderson Farms, Inc.  
225 North 13th Avenue  
P.O. Box 988  
Laurel, MS 39441-0988  
[www.sandersonfarms.com](http://www.sandersonfarms.com)

## A Poultry Farm

Another name for chicken is poultry. Some poultry is grown for meat. Chickens that are grown for meat are called broilers. They are raised in broiler houses.

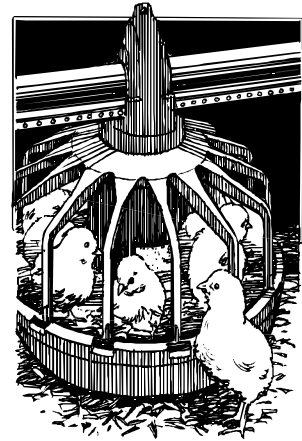


A broiler house might be as wide as 50 feet. It might be as long as a football field. That is about 300 feet.

The houses are covered with a metal roof. The floor of the broiler house is covered with litter. Litter is a layer of wood chips, sawdust, or other soft material. The litter helps keep the broilers clean and dry.

Windows are on the sides of the broiler house. The windows can be opened if it is too warm and closed if it is too cold.

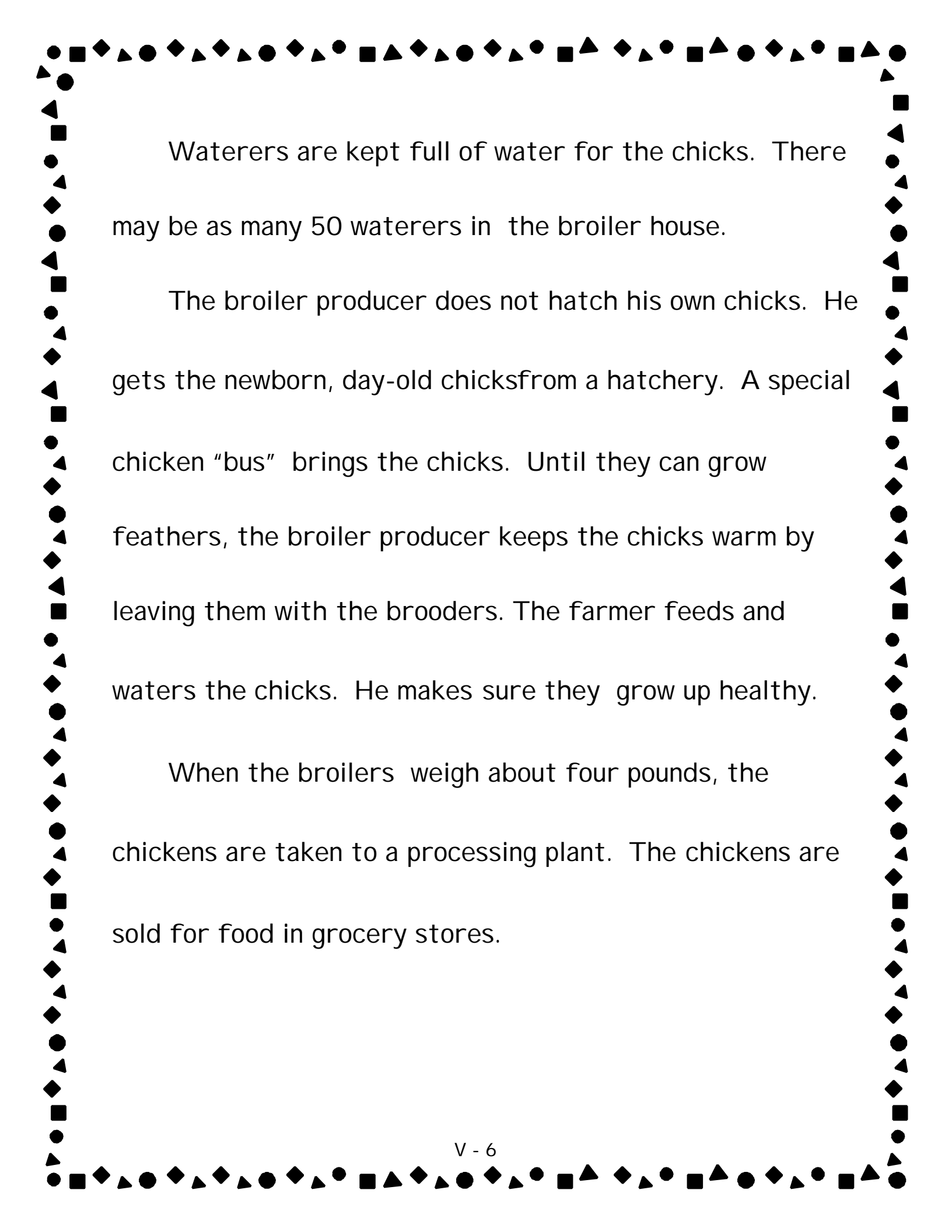
A broiler house has brooders to keep the chicks warm. Brooders are low hanging metal canopies. The baby chicks huddle under the brooders to keep warm. Day-old



baby chicks must have the temperature near 95 degrees.

This is about as hot as a summer day. Older chicks do not need as much heat.

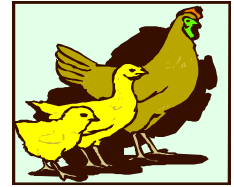
The chicks eat grain out of feeders. The trough automatically fills with food. The chicks can eat any time they get hungry.

A decorative border composed of various geometric shapes including circles, squares, triangles, and diamonds, arranged in a repeating pattern around the perimeter of the page.

Waterers are kept full of water for the chicks. There may be as many 50 waterers in the broiler house.

The broiler producer does not hatch his own chicks. He gets the newborn, day-old chicks from a hatchery. A special chicken "bus" brings the chicks. Until they can grow feathers, the broiler producer keeps the chicks warm by leaving them with the brooders. The farmer feeds and waters the chicks. He makes sure they grow up healthy.

When the broilers weigh about four pounds, the chickens are taken to a processing plant. The chickens are sold for food in grocery stores.



## A Poultry Farm

1. Some chickens are grown for \_\_\_\_\_.

- meat       chicken       poultry

2. \_\_\_\_\_ keep the chicks warm.

- Water       Brooders       Alligators

3. Waterers are kept full of \_\_\_\_\_.

- wait       water       wonder

4. The floor is covered with \_\_\_\_\_.

- litter       leaves       ladders

5. \_\_\_\_\_ are chickens raised for meat.

- Turkeys       Broilers       Layers

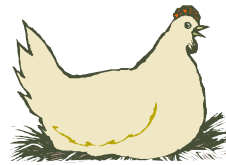
6. A \_\_\_\_\_ can be as long as a football field.

- waterer       broiler house       poultry farm

7. Newborn chicks must be kept as warm as \_\_\_\_\_.

- a summer night       a summer day

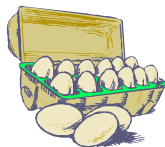
## An Egg Farm



Some farmers grow chickens to produce eggs. These chickens are called layers or laying hens. Farmers keep their layers in cages in large buildings called laying houses. They are fed corn and other feed so that they will lay good eggs with strong shells.



Layers lay about 250 eggs in a year. As soon as the egg is laid, it rolls onto a rolling belt that takes it to a washer. Next it goes to a large lighted table where workers look at each egg so that they can take out the ones that are cracked. This is called candling. Then the eggs are sorted by weight and size. Next they are put into cartons and cooled to 45 degrees. A truck with a refrigerator takes the eggs to the store where they are ready to be sold.





Activity 4

Grades 1-3



1. Some chickens are grown to produce \_\_\_\_\_ .  
 eggs       hens       corn
  
2. A layer can lay about \_\_\_\_\_ eggs a year.  
 55       250       2500
  
3. Which of these steps happens first?  
 The egg goes to a large lighted table.  
 The egg is washed.  
 The eggs are sorted.
  
4. What does candling mean?  
 The eggs are sorted by weight and size. The eggs are washed.  
 The eggs are put on a lighted table and checked for cracks.

5. What is the last step before the eggs are taken to the store?

They are candled.

They are sorted.

They are cooled.

6. What is special about the truck that takes the eggs to the store?

It has a refrigerator.

It goes really fast.

It is really big.

7. Which sentence below tells what this story is all about?

Chickens are grown for many reasons.

There are many different kinds of chickens grown on farms.

There are many steps that are followed to get an egg from the chicken to the store.

Activity 4  
Grades 4-6



## Two Different Kinds of Poultry Farms



Not too many years ago, every farm family had chickens around the farm to provide them with a ready supply of fresh eggs. It was usually the job of the farm kids to gather the eggs every day. They would gather fresh eggs for the family and leave some for the hen to hatch chicks. The farm wife would clean them, use the ones she needed for the family and maybe have a few left over to sell in town for some ready cash. Without refrigeration, the eggs would not stay fresh for very long, but there was always a ready supply from the chickens around the farm. When company came for dinner the farm wife would butcher one of the chickens and make a special meal of fried chicken or chicken and dumplings to share with the guests.

These days we buy our eggs and chicken at the grocery store. Instead of having just a few chickens around the farm, a poultry producer may have 100,000 or more.

Poultry is a word used for birds such as chickens, turkeys, ducks and geese. There are two types of chickens raised by poultry producers. They are broilers, which are raised for meat, and layers which are raised for egg production.

### Broilers

Chickens that are raised for meat are called broilers. They start out at a hatchery where they are hatched from eggs. When the chicks are one day old they are taken to a poultry farm where the producer puts them in a large building called a broiler house. The broiler house may be longer than a football field and one fourth as wide. It may hold as many as 50,000 young broilers, all the same size. The floor is covered with litter-- usually wood shavings or sawdust. The litter makes it easier to clean when the flock is removed.

The broiler house has warm lights, called brooders. The brooders are large canopies that hang close to the ground. The chicks gather under the brooders to keep warm. The temperature must be kept around 95 degrees for the young chicks. After the chicks have grown feathers the temperature inside the broiler house can be kept between 60 and 85 degrees.

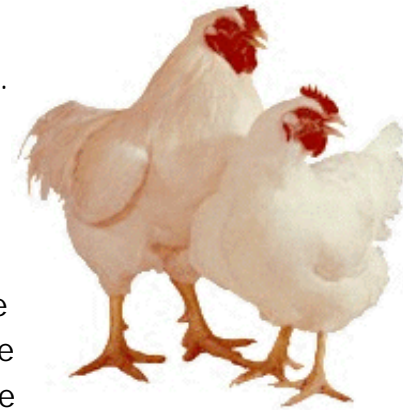
The broiler producer keeps special feed and water out for the birds at all times. He makes sure they get the nutrients, vitamins and minerals they need to stay healthy and grow quickly. The broilers live in the house for 6 to 8 weeks where all they do is eat, sleep and grow. When the birds have reached about 4 pounds they are taken to a processing plant where they are slaughtered, cleaned and shipped to the

grocery store. Many broilers are delivered to your favorite restaurant where you buy them as chicken nuggets, fried chicken and other forms of chicken we like to eat.

Most of the broilers in Texas are raised in the northeast part of the state. In 1999, Texas producers raised about 508 million broilers. Out of all the states Texas ranks 6<sup>th</sup> in the number of broilers raised.

## Layers

Layers or laying hens are used to produce eggs. Years ago farmers would let their hens run loose and put them up at night. Sometimes wild animals would sneak in and kill the hens. Also the farmer couldn't control what the hens ate and the meat or the eggs would not taste good. The farmer might have trouble finding the eggs because the hens roamed all over the yard. Today, egg producers keep their layers in large buildings called laying houses. The hens are kept in cages in the laying



houses. They are fed a mixture of feed that contains corn, soybean meal, vitamins and minerals. The feed is mixed so the hens will lay good quality eggs with strong shells that will not break easily.

Layers lay about 250 eggs in a year. They will lay an egg every day for several days in a row, then stop for a day or two. This cycle is called a clutch.

As soon as the egg is laid it rolls onto a conveyor belt where it goes through a washer. Next it goes on to a large lighted table where workers examine each egg and remove the ones with cracked shells or other defects. This is called candling. Then machines sort the eggs by weight and size, from the largest called jumbo, to the smallest, called peewee. After the eggs have been washed, candled and sized, machines put the eggs in cartons. The cartons protect the eggs from damage on their journey. The eggs are then placed in a large cooler that cools the eggs down to about 45 degrees. Next a refrigerated truck hauls the eggs to the supermarket where they are stored until the customer buys them.

From the time the egg is laid until the time it reaches the grocery shelf is only about 24 to 36 hours. So, in just a day or two after the egg has been laid it is ready to be sold!

Activity 4  
Grades 4-6



## Two Different Kinds of Poultry Farms

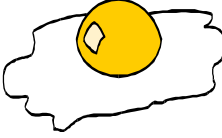


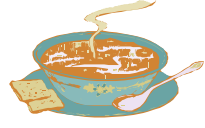


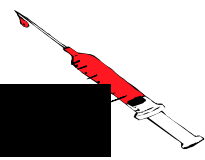




















Fill in the circle for the correct answer.

1. Chickens, turkeys, ducks and geese are also called
  - Livestock
  - Poultry
  - Chicklets
  - Brooders
2. Chickens that are raised strictly for meat are called
  - Bakers
  - Layers
  - Broilers
  - Fryers
3. How many weeks does it take for a meat type chicken to reach a weight of 4 pounds?
  - 32 weeks
  - 10 days
  - 6 months
  - 6 to 8 weeks
4. Why are brooders used in the broiler house?
  - So the chicks will eat more
  - To keep the fox out of the chicken house
  - To keep the baby chicks warm
  - So the farmer can catch them more easily
5. About how many eggs will a layer produce each year?
  - 250
  - 365
  - 420
  - 72
6. Why are eggs candled?
  - To see if they are the correct size
  - To see if they are cracked or have other defects
  - To make sure they are cold enough
  - To see what color they are

## Chicken and Egg Game

Below are items made from chickens or eggs. Cut, match and paste a chicken or egg under each appropriate item.

 Fried Egg	 Drumstick	 Cake	 Soup	 Boiled Egg
 Animal Feed	 Vaccines	 Easter Egg	 Soap	 Fertilizers

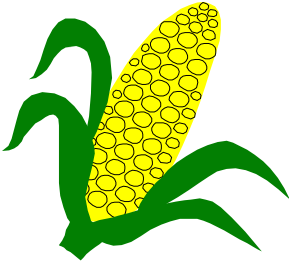
				
				
				

Activity 5  
Grades 1-3

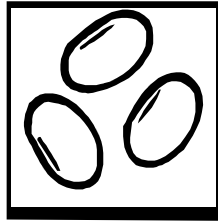
# Out of Place

In each row cross out the item that doesn't belong.

1.



Corn



Soy Beans



Cake

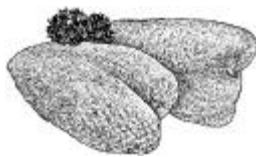


Fish Meal

2.



Drumstick



Breast Meat

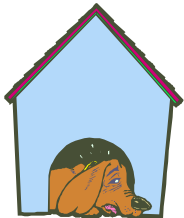


Wing



T-Bone Steak

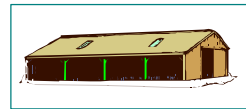
3.



Dog House



Truck



Broiler House

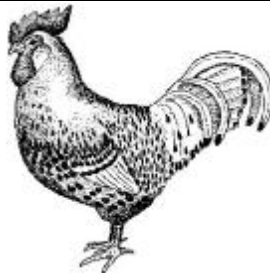


Home

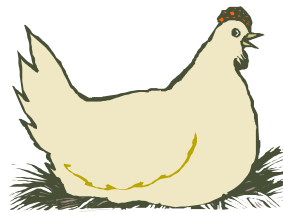
4.



Chick



Rooster



Hen



Flying Bird

Adapted from the Texas Poultry Federation and Texas Egg Council

Activity 5  
Grades 4-6



## Out of Place

Find the word in each sentence that does not belong and circle it.

1. Chickens have- feathers, beaks, eyes, ears, brushes, combs.
2. These are names used for chickens- hen, rooster, pullet, cockerel, chick, piglet.
3. These are chicken parts we buy in the grocery store- thighs, drumsticks, chops, wings, quarters, breasts.
4. These are things needed to raise chickens- feed, water, building, bubble gum, lights.
5. These are ways to cook chicken- fried, baked, stewed, broiled, frozen, creamed.
6. The parts of an egg are- shell, white, scales, membrane, yolk.
7. Buildings used in producing and marketing chickens- hatchery, broiler house, processing plant, kennel, supermarket.
8. These people help in growing chickens- feed delivery man, policeman, flock supervisors, farmers, veterinarians.
9. Chickens can-eat, drink, scratch, play ball, peep.
10. Chicken feed contains- corn, minerals, cucumbers, soybeans.

Adapted from the Texas Poultry  
Federation and Texas Egg Council





# SECRET CODE GAME



Use this code to find the answers:

A	B	C	D	E	F	G	H	I	J	K	L	M
2	3	1	12	4	5	14	7	6	0	16	24	18
N	O	P	Q	R	S	T	U	V	W	Y	Z	
22	8	15	20	17	26	19	10	21	13	11	25	

What do you call a chicken who doesn't go to school?

\_\_\_\_\_  
2 12 10 18 3 1 24 10 1 16

Why does the chicken cross the road?

\_\_\_\_\_  
19 8 14 4 19 19 8 19 7 4 8 19 7 4 17 26 6 12 4

How do police deal with criminal chickens?

\_\_\_\_\_  
19 7 4 11 14 17 6 24 24 19 7 4 18

Who is the most famous frozen chicken of all time?

\_\_\_\_\_  
2 12 18 6 17 2 24 3 11 17 12

Which chickens love the sun?

\_\_\_\_\_  
19 7 4 3 17 8 6 24 4 17 26

Activity 6  
Grades 1-3

## Food for Thought

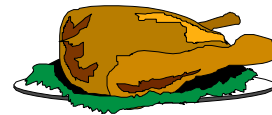
Put a check next to the kind of chicken you have enjoyed. In the blank space, name your favorite kind of chicken.

\_\_\_\_\_ Fried Chicken



\_\_\_\_\_ Broiled Chicken

\_\_\_\_\_ Roasted Chicken



\_\_\_\_\_ Chicken Salad

\_\_\_\_\_ Barbecued Chicken

\_\_\_\_\_ Chicken Fajitas



\_\_\_\_\_ Stir-Fried Chicken

\_\_\_\_\_ Chicken Soup

\_\_\_\_\_ Chicken Enchiladas

\_\_\_\_\_ Chicken Spaghetti



\_\_\_\_\_ Chicken Tenders

My favorite chicken is \_\_\_\_\_.

Activity 8  
Grades 4-6

## The Hen to Home Map



It takes many steps to get an egg from the hen to the homes where eggs are enjoyed as a valuable food source.

### Step 1: Laying



The hens are taken to hen houses and kept inside for the laying of the eggs.

### Step 2: Collecting



The eggs automatically drop onto a conveyor belt after they are laid.

### Step 3: Washing

Next, the eggs are automatically washed so they are clean.

### Step 4: Treating

Eggs are sprayed with a tasteless, odorless, harmless oil that reseals the pores in the shell. This helps to keep the eggs fresh.

### Step 5: Candling

Then eggs are passed over an intense light so that the contents can be examined. Eggs with cracked shells, spots on the albumen or yolk, and inferior eggs are removed. Only the best eggs continue the journey to homes.



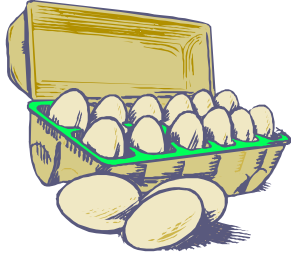
### Step 6: Grading

Eggs are graded according to appearance. The eggs are marked as Grade AA, Grade A, or Grade B. Just like grades in school, the Grade AA and A are very, very good and the Grade B is very good.

### Step 7: Sorting

Next, the eggs are sorted by their size. The largest are labeled as Jumbo, then Extra Large, Large, Medium, Small and PeeWee.

### Step 8: Packing



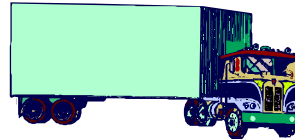
Eggs are then placed in cartons. The cartons are stamped with the correct size and grade. They are also stamped with a freshness date. This stamp may read "use by" a certain date. This tells the consumer how long the eggs have been in the carton.

### Step 9: Cooling

The eggs are cooled to a temperature of 45 degrees. The lowering of the temperature keeps the eggs fresh.

### Step 10: Shipping

Then the eggs are shipped in refrigerated trucks to the grocery stores. This shipping time takes 24 to 36 hours.



### Step 11: Selling

Now the eggs are ready to be sold. Stores keep the eggs refrigerated to maintain freshness.



### Step 12: Storing

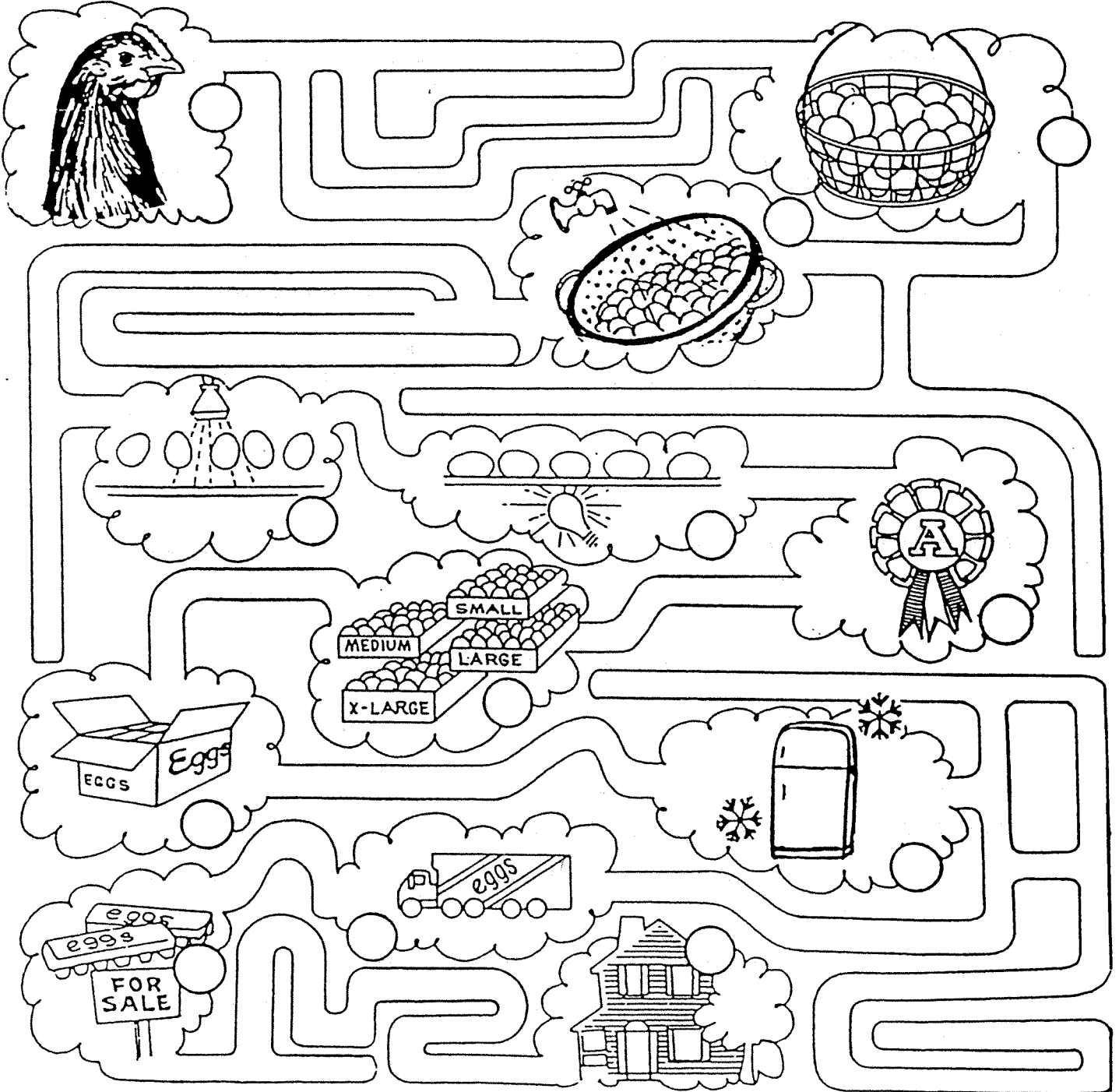
Last, the eggs are taken home by the consumer. The eggs must be stored in the refrigerator. If eggs are stored at the correct temperature, they will remain fresh for four to five weeks.

## From Hen To Home

Below are the steps an egg follows on the journey from the hen to the home.

- |               |             |              |
|---------------|-------------|--------------|
| 1. Laying     | 5. Candling | 9. Cooling   |
| 2. Collecting | 6. Grading  | 10. Shipping |
| 3. Washing    | 7. Sorting  | 11. Selling  |
| 4. Treating   | 8. Packing  | 12. Storing  |

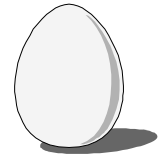
Number the pictures to show the correct order. Then trace the steps through the maze until the egg reaches your home! Don't get lost along the way!



Activity 9



# VINEGAR AND EGG EXPERIMENT



Question: How does vinegar affect the shell of an egg?

Hypothesis: I think the shell will \_\_\_\_\_.

Materials: 2 clear glasses, water, vinegar, 2 unbroken raw eggs

Procedure: Place 1 egg in a glass filled with 1 cup water.

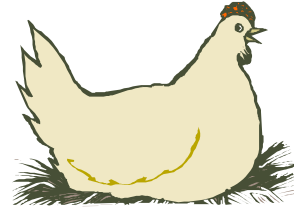
Place 1 egg in a glass filled with 1 cup vinegar. Leave overnight.

Observations: The shell in the glass with the water \_\_\_\_\_  
\_\_\_\_\_.

The shell in the glass with the vinegar \_\_\_\_\_  
\_\_\_\_\_.

Conclusion: The vinegar caused the shell to \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

## A Poultry Farm



1. Chicken is also called\_\_\_\_\_.

poultry

broiler houses

poles

meat

2. Chickens raised for meat are called \_\_\_\_\_.

turkeys

layers

broilers

dumplings

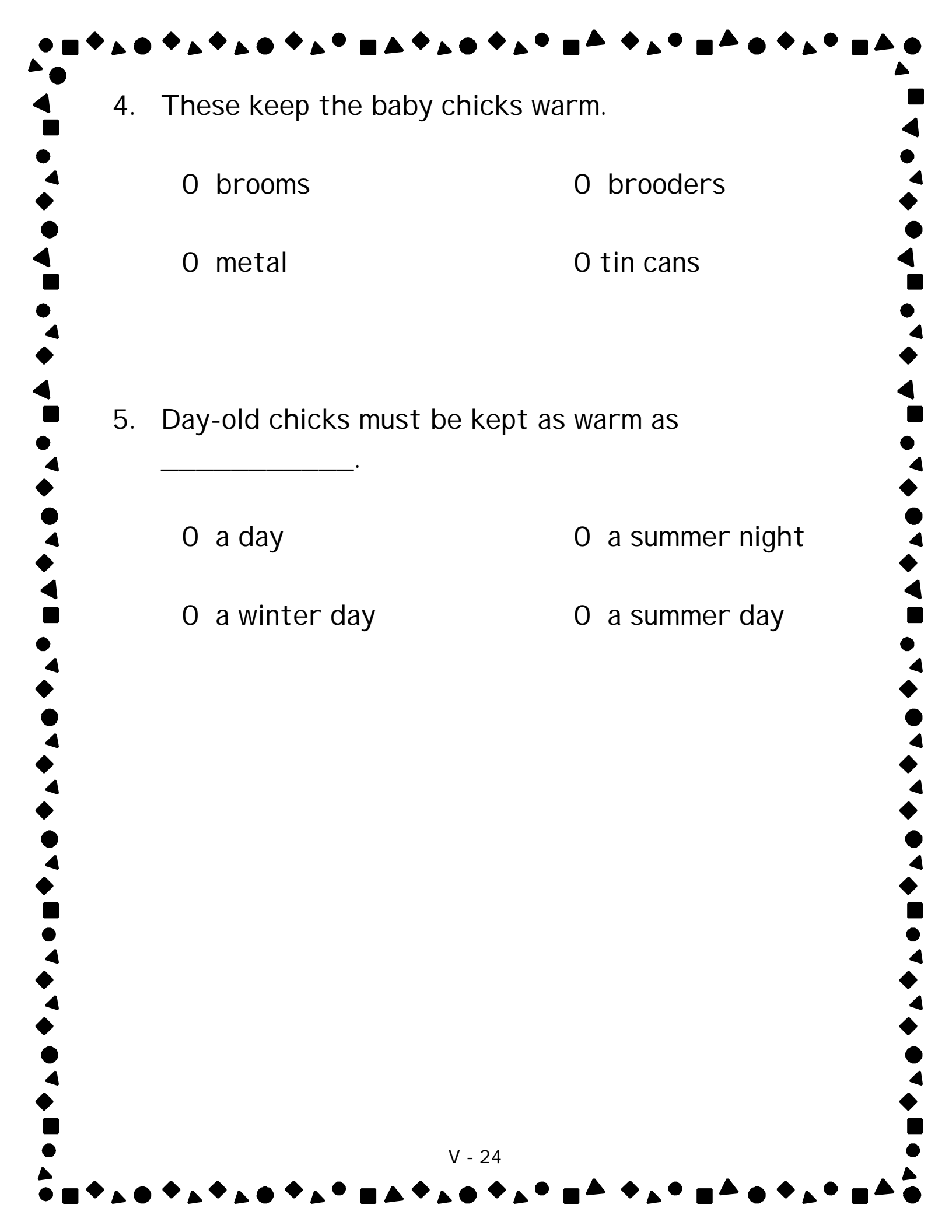
3. A broiler house can be as long as a \_\_\_\_\_.

football

field

football field

50 feet



4. These keep the baby chicks warm.

brooms

brooders

metal

tin cans

5. Day-old chicks must be kept as warm as

\_\_\_\_\_.

a day

a summer night

a winter day

a summer day



## ANSWER KEY

### ACTIVITY 4

#### A Poultry Farm (1-3)

1. Meat
2. Brooders
3. Water
4. Litter
5. Broilers
6. Broiler house
7. A summer day

#### An Egg Farm (1-3)

1. Eggs
2. 250
3. The egg is washed.
4. The eggs are put on a lighted table and checked for cracks.
5. They are cooled.
6. It has a refrigerator.
7. There are many steps that are followed to get an egg from the chicken to the store.

#### Two Different Kinds of Poultry Farms (4-6)

1. Poultry
2. Broilers
3. 6-8 weeks
4. To keep the baby chicks warm
5. 250
6. To see if they are cracked or have other defects

### ACTIVITY 5

#### Chicken and Egg Game (1-3)

##### Egg

- Fried egg
- Cake
- Deviled egg
- Vaccines
- Easter eggs

##### Chicken

- Drumstick
- Soup
- Animal feed
- Soap
- Fertilizers

#### Out of Place (1-3)

- Cake
- T-bone steak
- Truck
- Flying bird

#### Out of Place (4-6)

1. Brushes
2. Piglet
3. Chops
4. Bubble gum
5. Frozen
6. Scales
7. Kennel
8. Policeman
9. Play ball
10. Cucumbers

A decorative border of various geometric shapes (circles, squares, triangles, diamonds) surrounds the page content.

(ACTIVITY 5 Con'd)

Secret Code Game

1. A dumb cluck
2. To get to the other side
3. They grill them
4. Admiral Byrd
5. The broilers

ASSESSMENT

A Poultry Farm (1-3)

1. poultry
2. broilers
3. football field
4. brooders
5. a summer day