

# POULTRY

## CONNECTION

The Poultry Connection has been developed and produced by Texas Farm Bureau Agriculture in the Classroom

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Teachers—For lesson plans, videos and other resources for your classroom, go to [texasfarmbureau.org/aitc](http://texasfarmbureau.org/aitc)



### NO ADDED HORMONES EVER!

Many of us have walked through the grocery store and seen a sign that reads, “Chicken with NO Hormones.” Did you know that chickens never receive hormones? Hormones in chickens were outlawed by the United States government in the 1950s. Adding hormones in chickens or turkeys is still illegal in the United States.



Photo courtesy of National Chicken Council

## WHO'S THAT BIRD?

*Did you know that poultry have different names throughout their life cycle depending on their species?*



**CHICKENS**  
Male: Rooster  
Young Male: Cockerel  
Female: Hen  
Young Female: Pullet



**TURKEYS**  
Male: Tom  
Young Male: Jake  
Female: Hen  
Young Female: Jennie



*What are the crops that poultry eat?*

Photo courtesy of Texas A&M University Poultry Science

# CHICKEN NUGGETS OR SCRAMBLED EGGS?

## BROILER VS LAYER



Chickens that are raised specifically for meat are called broilers. Broilers gain more weight, and most broilers grow to full maturity (full grown) on poultry farms in just 48 days! The meat produced by broilers is a healthy source of protein for humans.



Chickens that lay eggs are smaller than broilers and are called layers. Most farmers raising laying hens use white layers, while backyard flocks usually have layers of other colors. Varied colored flocks produce varying colored eggs.

**What differences do you observe in the two types of chickens?**

Write your answers below.

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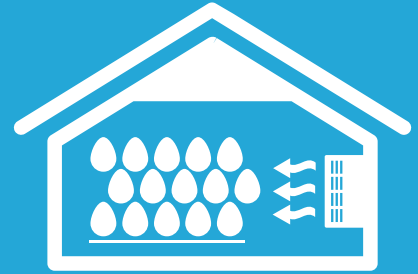
## WORD SEARCH FUN!

**Find the following words in the word search:**

**BROILER    LAYER    HATCHERY    POULTRY    MEAT**  
**TURKEY    CORN    WHEAT    EGGS**

Y	B	R	O	I	L	E	R	T	A
H	E	E	W	H	E	A	T	C	G
A	E	C	K	R	B	S	T	D	R
T	V	P	O	U	L	T	R	Y	B
C	O	R	N	O	A	U	E	C	Q
H	E	F	Y	E	Y	W	U	R	E
E	A	O	M	H	E	G	G	S	R
R	E	W	T	U	R	K	E	Y	P
Y	W	D	O	U	B	E	D	T	E
R	O	Q	E	K	U	L	E	R	U

# BROILER LIFE CYCLE



## The Hatchery

A chicken's life begins in a hatchery where fertilized eggs are incubated and then hatched.

Once hatched, they are transported to farms where they are raised until sold for meat production.



## The Broiler Farm

(Grow Out Farm)

- They grow to market weight in about 6-8 weeks.
- Unlimited feed and water is provided.
- Temperature, humidity and ventilation are carefully controlled.
- When the chickens are large enough to be sold for meat consumption, they are transported to the processing plant where they are harvested.



The chickens are taken to the processing plant to be harvested into the products that we regularly consume.



# WHERE DO BROILERS LIVE?

Clean housing is very important for chickens to grow and be healthy. Modern-day chicken houses are very complex. The health and safety of chickens is of great importance, so there are many safety features present in today's chicken houses.

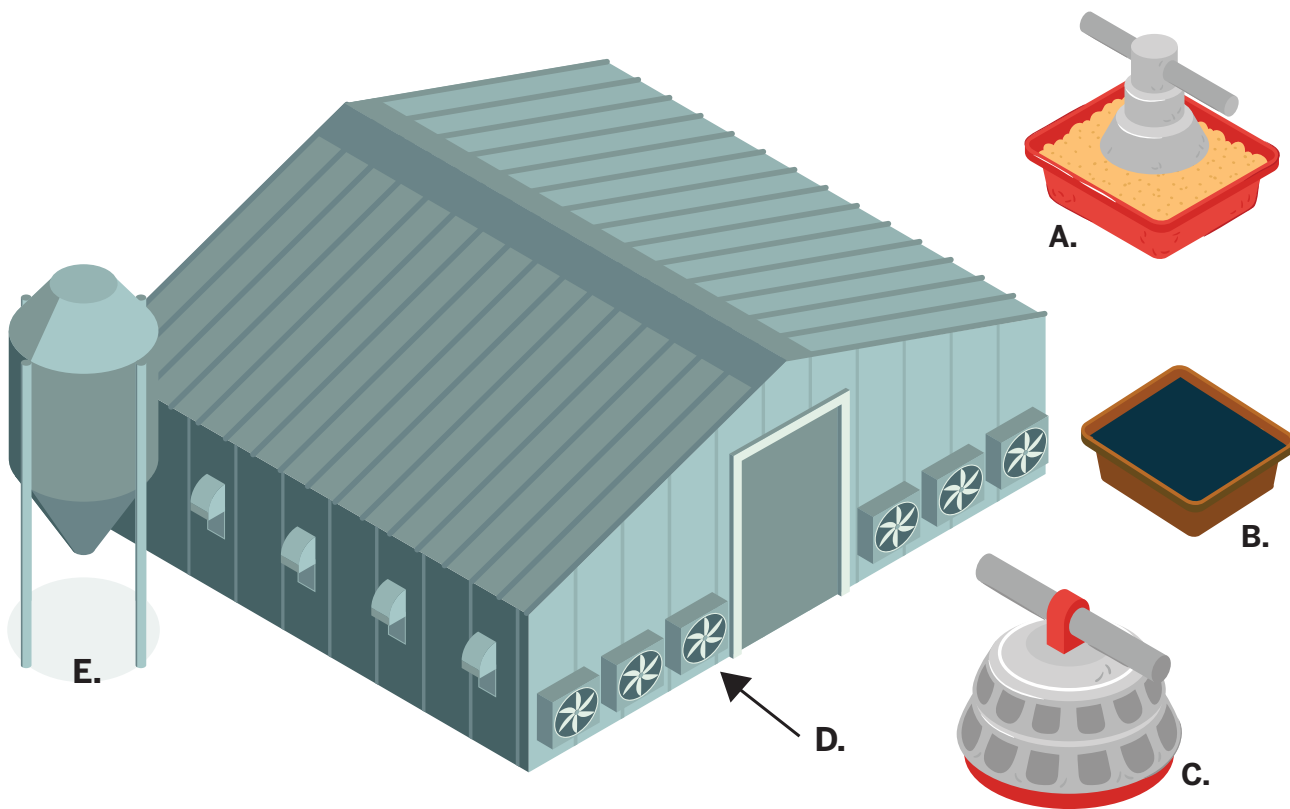
The houses are large and open for chickens to roam freely. Temperature is crucial and can affect how well the chickens grow. The houses are equipped with large tunnel fans that circulate air

and keep the temperature exactly where it needs to be.

Feeders have a built-in sensor that detects when the feeders need to be filled up with nutrients that chickens need. Just like for humans, water is an essential nutrient for chickens. Clean water is provided to the chickens in water troughs throughout the house 24/7. Chickens also receive a very specific diet that aligns with their nutritional needs. Farmers have feed

bins near the chicken houses that store the feed and allow farmers to have easy access to the exact feed and the proper amounts at all times.

Chickens are easily susceptible to disease if the proper steps are not taken. To help ensure diseases don't enter chicken houses, farmers must always step into a footbath that sanitizes their shoes before ever entering the houses. This is part of a biosecurity plan, and it is a top priority for chicken farmers.



## Label the essential features of a chicken house

Tunnel Fans   Feeders  
Water Troughs   Footbath   Feed Bins

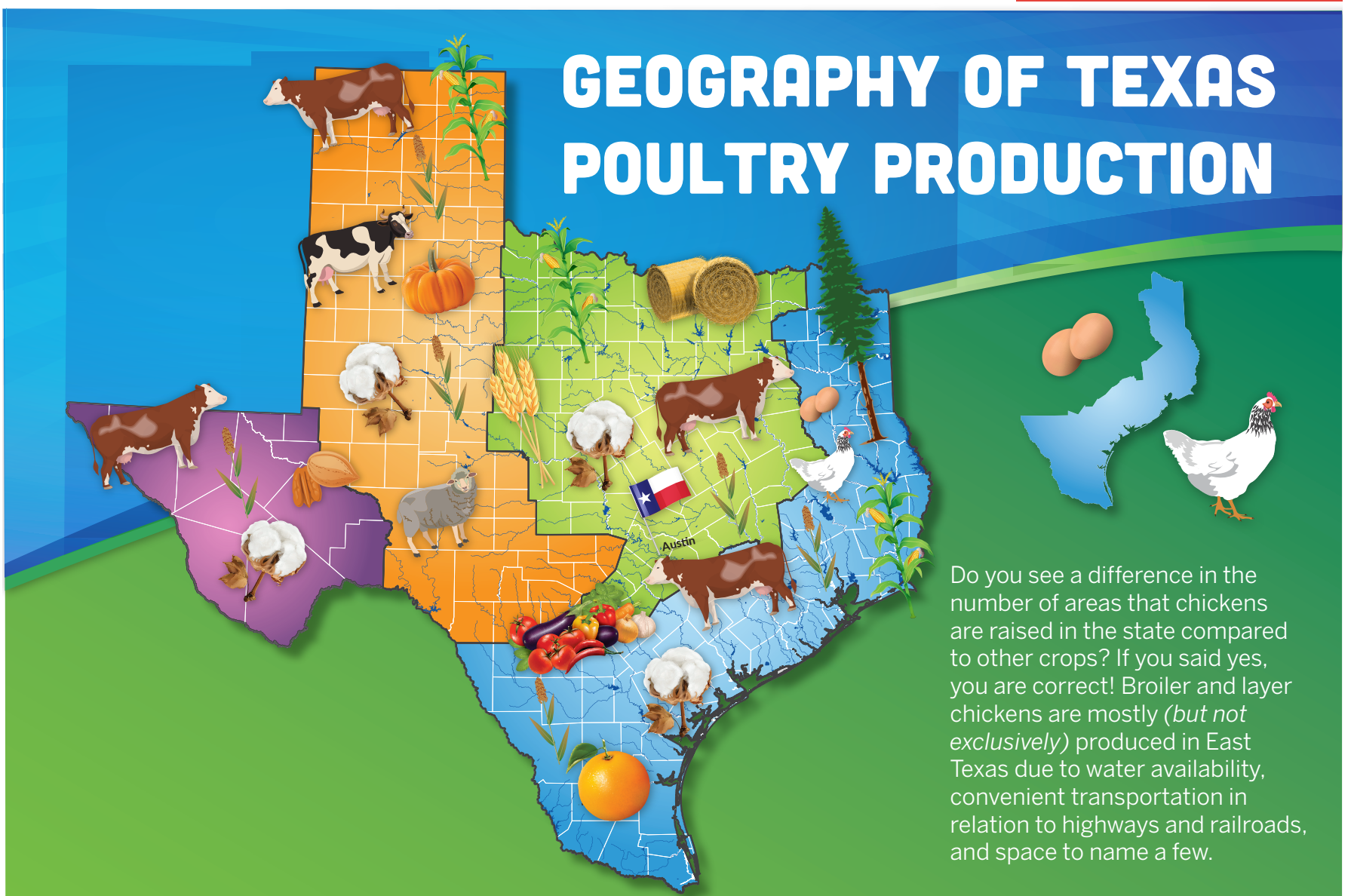
A.

B.

C.

D.

E.



## GEOGRAPHY OF TEXAS POULTRY PRODUCTION

Do you see a difference in the number of areas that chickens are raised in the state compared to other crops? If you said yes, you are correct! Broiler and layer chickens are mostly (*but not exclusively*) produced in East Texas due to water availability, convenient transportation in relation to highways and railroads, and space to name a few.

# PARTS OF AN EGG

Label the egg with the correct parts

chalazae

germinal disk

air cell

shell

yolk

albumen

Outer portion of the egg, composed largely of calcium carbonate, and protects the egg

Twisted cordlike strands of egg white

Slight indent on yolk

Yellow portion of the egg that is a source of vitamins, minerals, and fat

White in color and is a major source of the egg's protein

Pocket of air formed at the large end of the egg

## EGG CANDLING

Some eggs are fertilized and will produce a chick, but other eggs are unfertilized. We call those table eggs, and they're what we eat for breakfast and use to make yummy treats like cake and cookies!

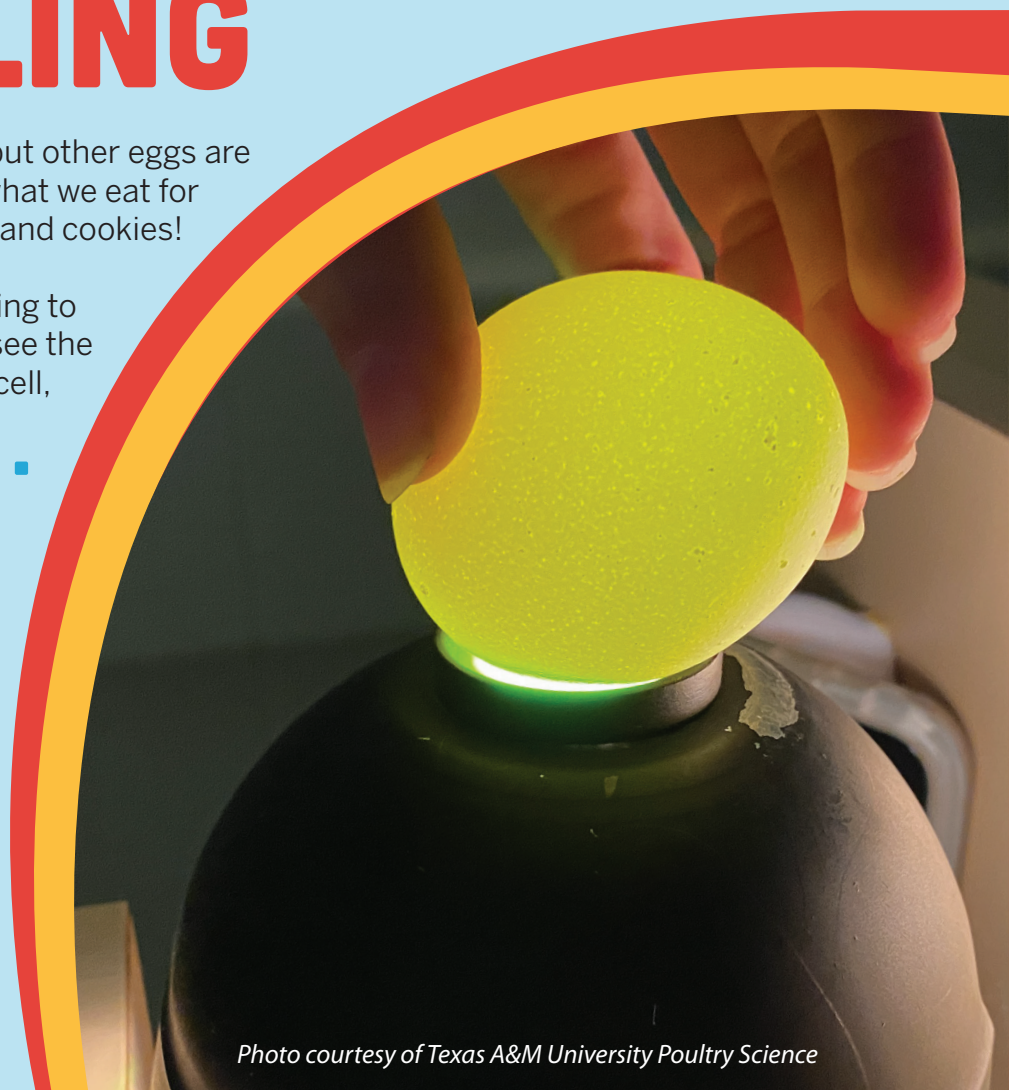
The poultry industry uses a technique called candling to analyze the quality of the egg. Candling helps you see the white, the yolk, and the air cell. The smaller the air cell, the better the quality of the egg.

### TRY IT AT HOME!

**What you need:**

- Eggs
- 1 flashlight

Hold the egg up and shine the flashlight on the bottom of the egg. The light should allow you to see right through the egg. If you look closely, you'll likely be able to identify some of the parts of the egg from the diagram! Candling also allows you to see the air cell size. If the air cell is large, that means the egg is less fresh than one with a smaller air cell.



*Photo courtesy of Texas A&M University Poultry Science*



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edoutreach@txfb.org. Cost is \$5 for class pack of 30.

*A special thanks is extended to Texas A&M University  
Department of Poultry Science for information input. (11-2022)*