POULTRY

TYPES: chickens, turkeys, ducks, ostriches, emus, quail, pigeons, pheasants, geese raised for meat or eggs

VOCABULARY

BROILER/FRYER: a chicken bred for meat.

ROOSTER: male chicken.

HEN: female chicken or turkey.

CHICK: a young chicken.

TOM: male turkey.

FLOCK: a number of animals of one kind, that keep or feed together or are herded together.

POULT: a young turkey.

SNOOD: the long, red, fleshy growth from the base of the beak that hangs down over the beak of a turkey.

CARUNCLE/COMB: the red-pink fleshy growth on the head and upper neck of turkeys and chickens.

GIZZARD: a part of a bird's stomach that contains tiny stones, which helps them grind up food for digestion.

WATTLE: a bright red appendage at the neck of a turkey.

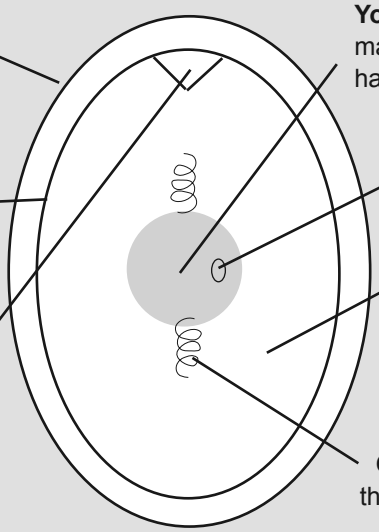
BEARD: the black lock of hair found on the chest of a male turkey.

INCUBATOR: a box which maintains a constant temperature and is used to hatch eggs.

Shell – Outer covering of the egg, composed largely of calcium carbonate, that provides protection to the rest of the egg.

Shell Membranes – Two paper-like membranes that are protective barriers against bacteria.

Air Cell – Pocket of air formed at the large end of the egg between the shell membranes that increases in size with age. This is caused by the contraction of the contents as the egg cools after laying.



Yolk – Yellow portion of the egg. The yolk is a major source of vitamins, minerals, and almost half of the protein.

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

Albumen – Clear-like portion of the egg that is the major source of egg riboflavin and protein. It provides protein to the growing embryo and cushions the embryo during its development. It also protects against microbes.

Chalaza – Cord-like twisted strand in the albumen that anchors the yolk in the center of the egg.

POULTRY

2011 UNITED STATES EGG PRODUCTION

Top 5 Egg Producing States

Iowa	Ohio	Pennsylvania
Indiana	California	

2011 UNITED STATES TURKEY PRODUCTION

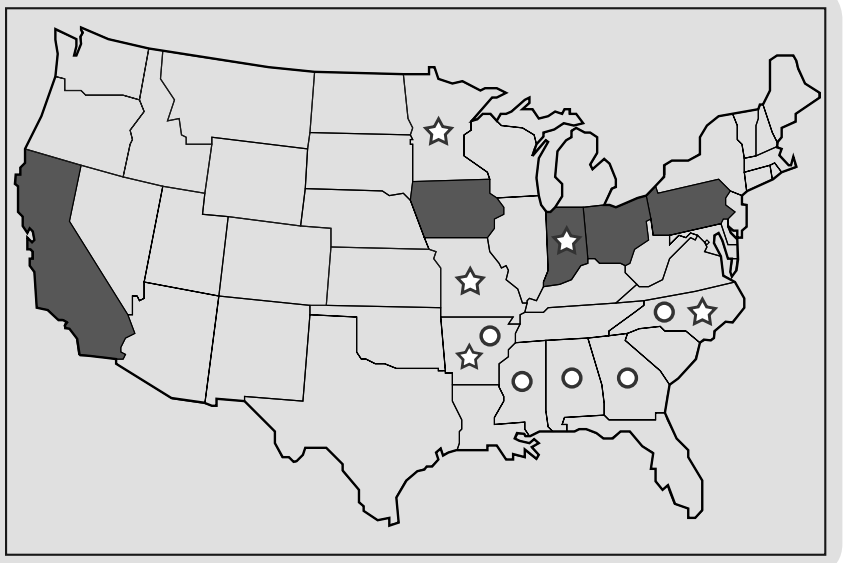
☆ ***Top 5 Turkey Producing States***

Minnesota	North Carolina	Arkansas
Indiana	Missouri	

2011 UNITED STATES BROILER PRODUCTION

○ ***Top 5 Broiler Producing States***

Georgia	Arkansas	Alabama
North Carolina	Mississippi	



POULTRY TIMELINE

3000 B.C. — Egyptians had domesticated, or tamed, fowl that were laying eggs for man to eat.

1492 — Historians believe that the first chickens related to today's egg layers were brought to the Americas by Columbus's ships.

1498 — According to William Rubel, the first birds arrived in Spain. Turkey was the New World food most easily adopted by Europeans.

1540's — Turkeys were established in England by the 1540's. By the 1570's, they were raised throughout the country.

1620 — The early English settlers of the 1620's, to what is now New England, brought turkeys with them. Although they encountered wild turkeys in the forests, they wanted domesticated turkeys for their barnyard.

1840 — First National Poultry Census was conducted.

1849 — America's first Poultry Show was held in Boston, Massachusetts.

1949 — USDA launched a voluntary program of grading to assure consumers of high quality.

1952 — Specially bred meat chickens (broilers) surpassed farm chickens as the number one source of chicken meat in the United States.

1953 — Swanson invented the TV dinner packaged with turkey and other goods. By the end of the first year, Swanson had sold more than 10 million meals.

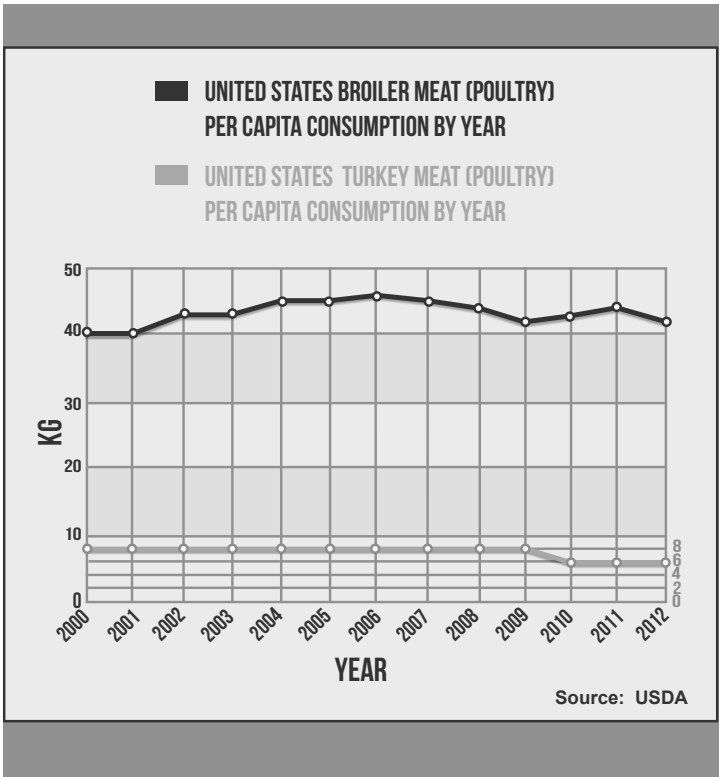
1959 — Federal inspection of broilers became mandatory.

1980 — McDonald's Chicken McNugget was introduced.

1985 — Chicken consumption surpassed pork consumption.

1992 — Chicken consumption surpassed beef consumption in the U.S.

2011 — The average number of egg laying hens in the United States was 281 million!



POULTRY

CAREERS: Farm Manager, Processing Plant Worker, Researcher, Accountant, Nutritionist, Advertising/Public Relations, Food Scientist, Geneticist

SPOTLIGHT ON CAREERS:

FOOD PROCESSING WORKER — **Food Processing Workers** are employed at different food processing stages where animals are cut and trimmed into manageable pieces of meat that are suitable for sale to wholesalers, retailers and consumers. They also inspect meat products for defects, bruises or blemishes, and remove them along with any excess fat. They generally work in meat processing plants and grocery stores.

ACCOUNTANT— An **Accountant** is responsible for accurately handling day-to-day accounting functions and financial information. Accounting responsibilities can include analyzing accounting records, computing taxes, developing budgets, providing auditing services and even giving financial advice. Agricultural accounting jobs have many of the same requirements as business accounting jobs, but require some knowledge of the agricultural sector. The U.S. Bureau of Labor Statistics expects the number of accounting jobs to increase by 22 percent by 2018.

EVENTS IN EMBRYONIC DEVELOPMENT

DAY 1: beginning of nervous system, head and eyes

DAY 2: heart beats

DAY 3: beginning of nose, legs and wings

DAY 4: beginning of tongue

DAY 5: formation of reproductive organs

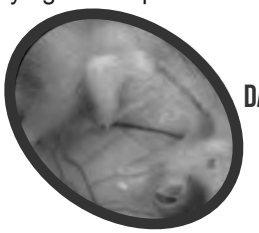
DAY 6: beginning of beak

DAY 8: beginning of feathers

DAY 10:

DAY 13: appearance of scales and claws

DAY 14: embryo gets into position suitable for breaking shell



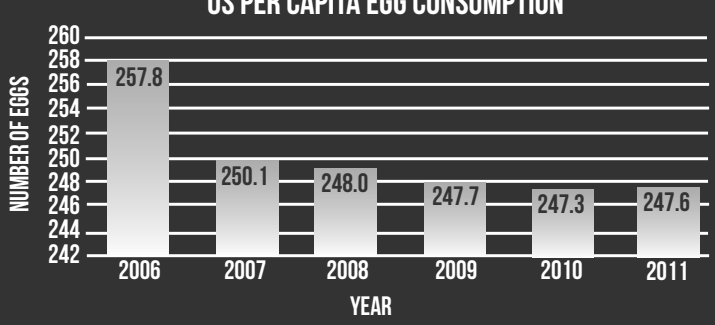
DAY 15:

DAY 16: scales, claws and beak become firm

DAY 21: hatching of the chick

DAY 20:

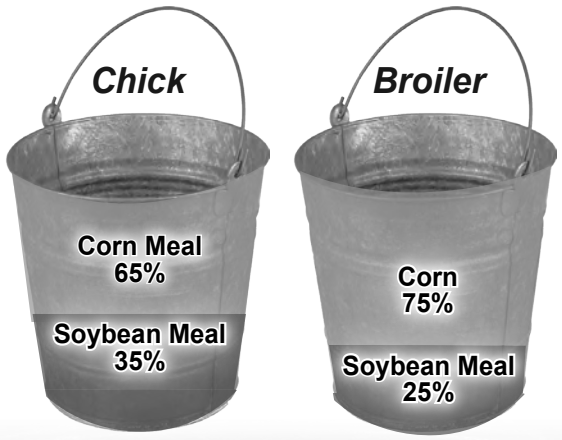
U.S. EGG CONSUMPTION 2006-2011



Source: USDA

POULTRY

CHICKENS AND THEIR DIET



These are approximations based on sample diets. Trace minerals, vitamins and other supplements may also be added. Animals eat to meet their energy (calorie) needs each day—they do not overeat. Young animals that are actively growing have greater requirements for protein than older animals. As the animal gets older, the protein needs (soybean meal) decrease.

SCIENCE AT HOME

THE BOUNCING EGG EXPERIMENT

MATERIALS:

1. One hard cooked egg
2. Plastic container with a lid
3. White vinegar

DIRECTIONS:

1. Without breaking the shell, examine the hard cooked egg carefully. Record visual observations.

2. Place the egg in the plastic container. Cover completely with white vinegar and seal with lid. Look closely at the egg. Predict what will happen in one hour, one day, and one week. Record predictions. Leave the egg in the vinegar for a full 24 hours.

3. Change the vinegar on the second day. Carefully pour the old vinegar down the drain and cover the egg with fresh vinegar. Place the container with the vinegar and egg in a safe place for a week! Do not disturb the egg but pay close attention and record observations.

4. One week later, pour off the vinegar and carefully rinse the egg with water. The egg looks translucent because the outside shell is gone! The only thing that remains is the delicate membrane of the egg. The egg white and yolk should have become rubbery. Record what happens when it is dropped. It should bounce! Note: Do not eat the egg.

Source: Steve Spangler Science

DID YOU KNOW?

To tell if an egg is raw or hard-cooked, spin it. If the egg spins easily, it is hard cooked but if it wobbles, it is raw.

When astronauts Neil Armstrong and Edwin Aldrin ate their first meal on the moon, their food packets contained roasted turkey and all of the trimmings!

The heaviest turkey ever raised weighed in at 86 pounds – about the size of a large German Shepherd – and was grown in England, according to Dr. Sarah Birkhold, poultry specialist with the Texas Agricultural Extension Service.

As a hen ages, her eggs increase in size.

The egg shell may have as many as 17,000 tiny pores over its surface.

Agriculture in the Classroom USDA

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