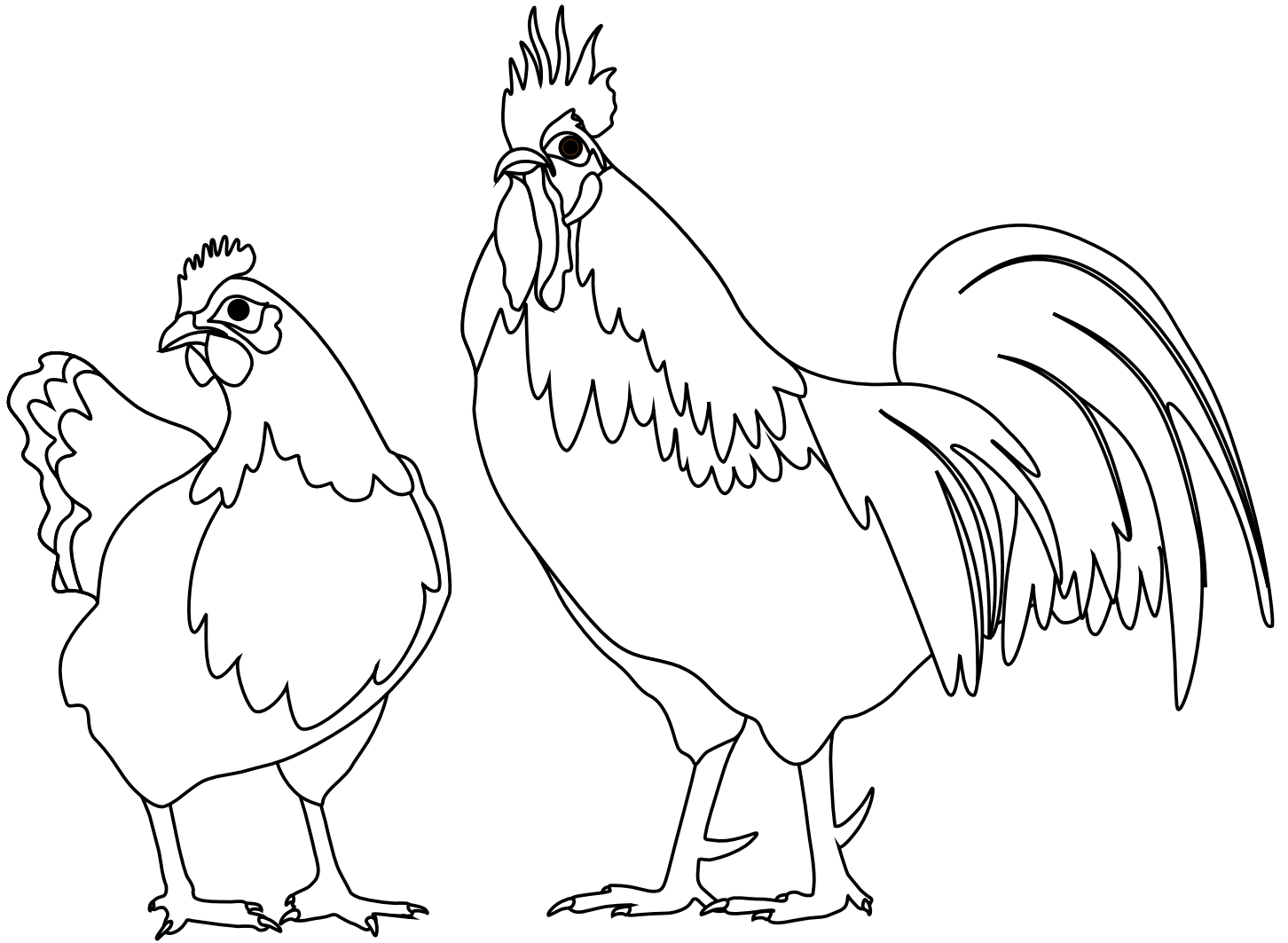


ADULTS



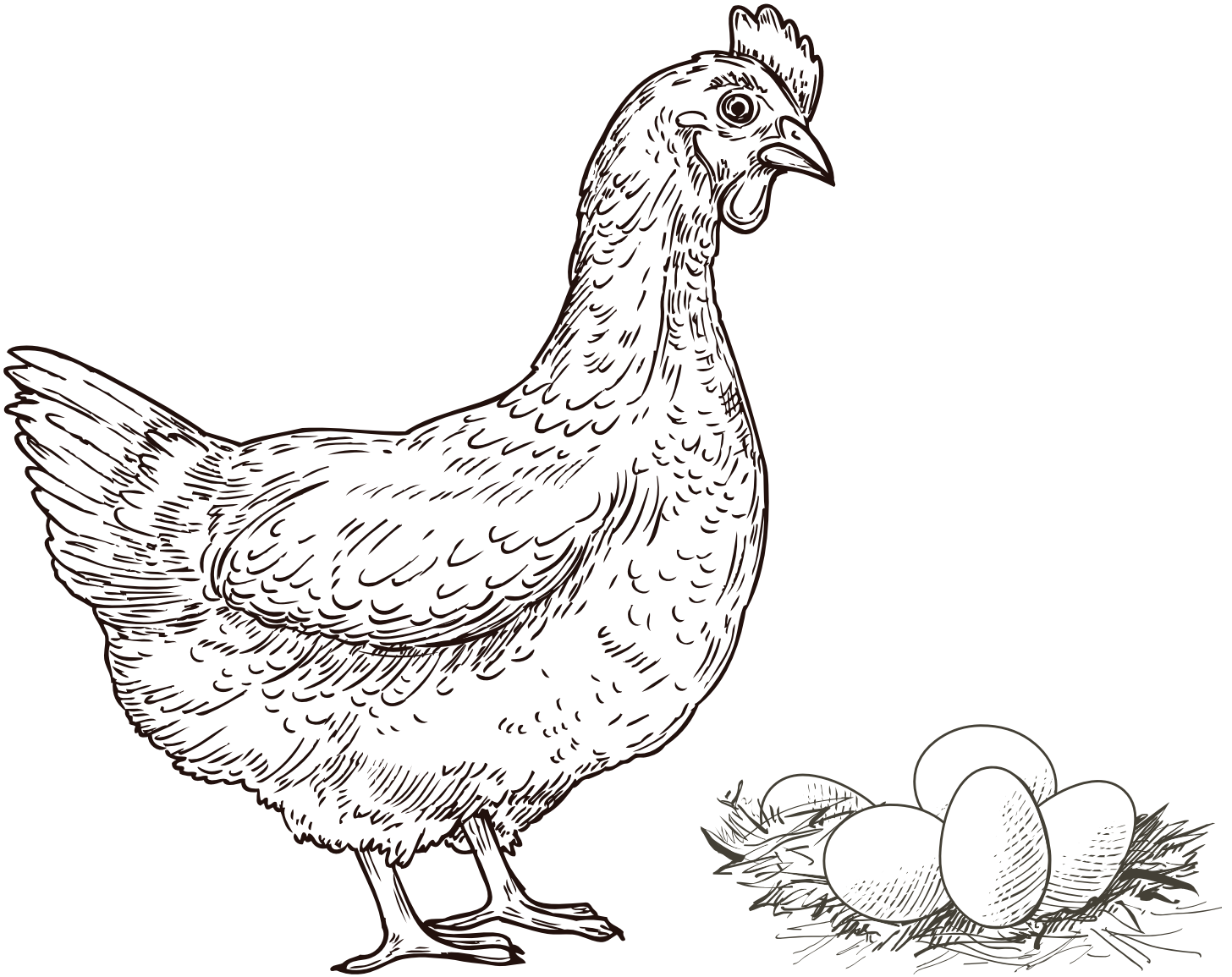
HEN ROOSTER

A common question is “Which came first, the chicken or the egg?”. In the lifecycle of a chicken, the parents come first. Reproduction of chickens, like all birds, involves EGG production.

A female chicken is called a HEN and a male chicken is called a ROOSTER.

A hen can lay eggs without having a rooster around, but those eggs can only produce a chick if the hen and rooster have mated.

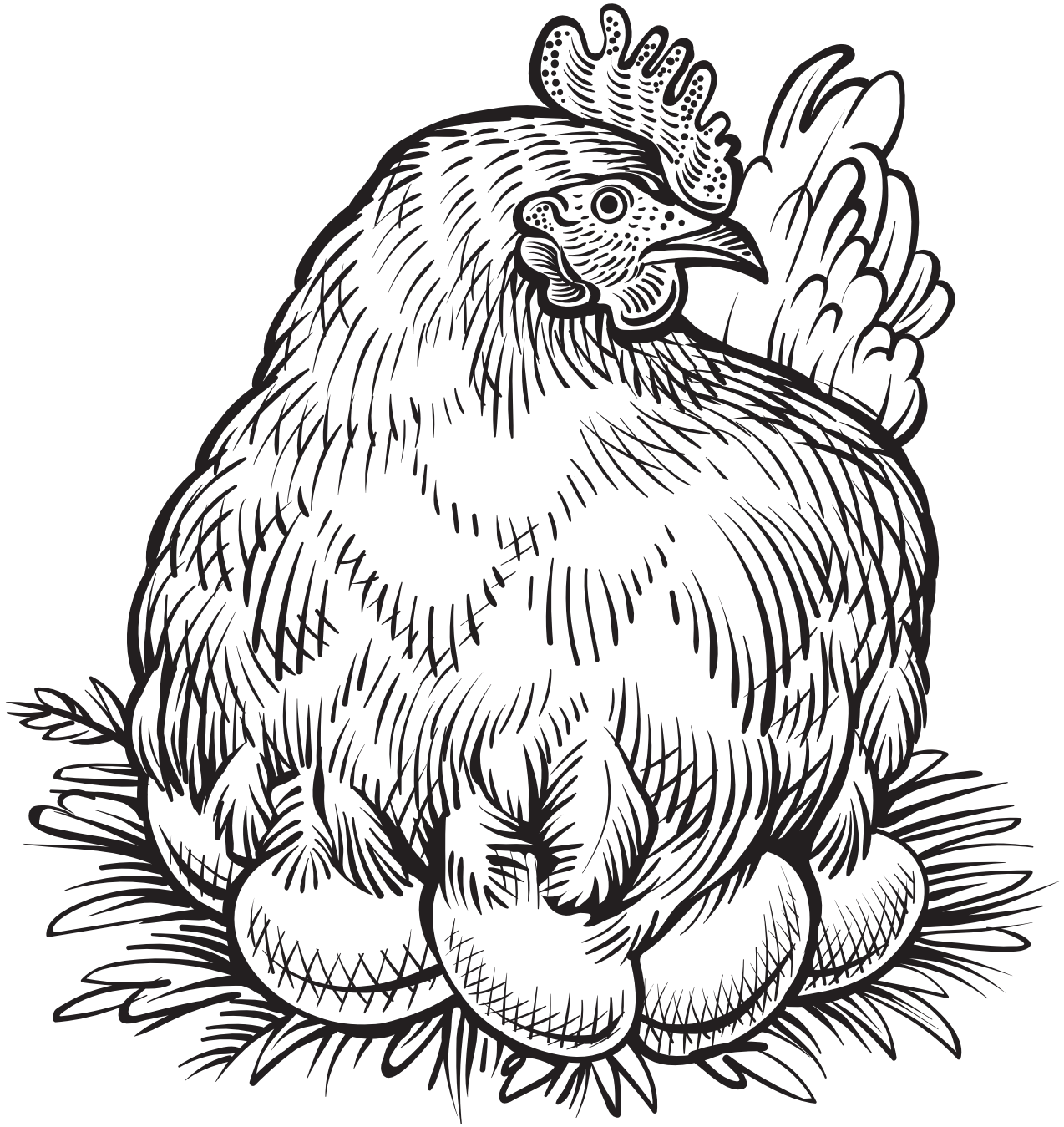
FERTILE EGGS



Once a HEN and ROOSTER have mated, the hen can produce FERTILE EGGS. These are eggs that, when incubated, have the potential to become a chick.

It is important to note, however, that the majority of the eggs you buy at the grocery store are from hens with no roosters around. Those eggs are infertile and can never become a chick, even if incubated.

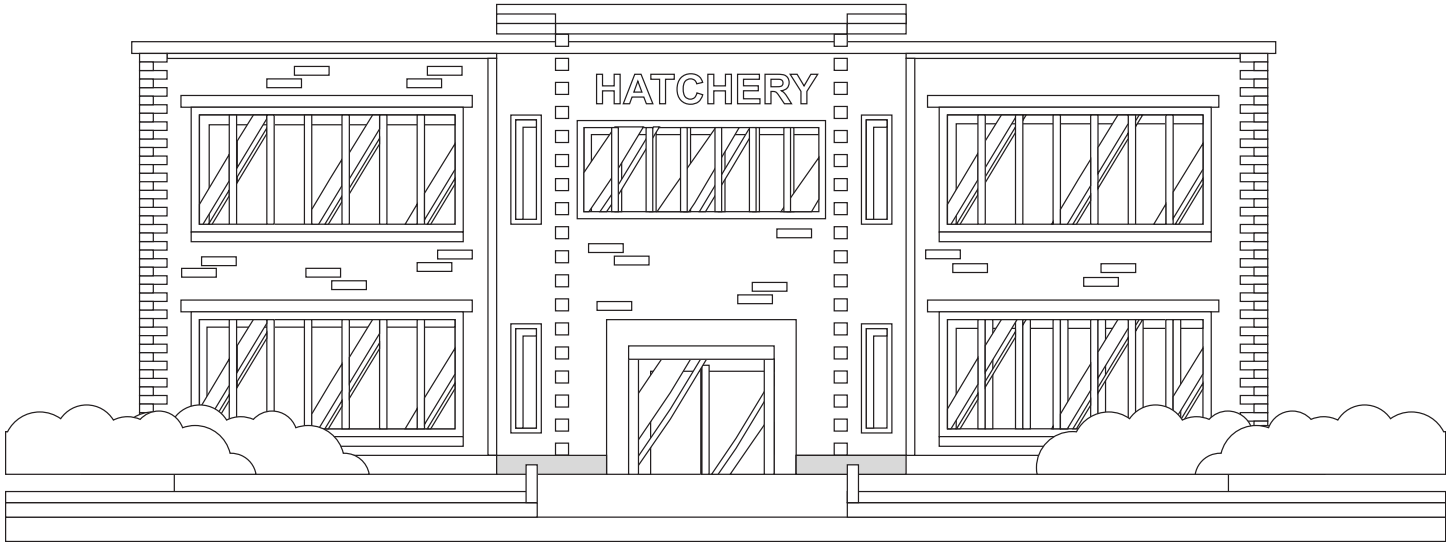
INCUBATION



In order for the fertile eggs to become chicks they must be INCUBATED. Once a HEN has laid about 12-15 eggs, she will stay on them providing the heat they need for the embryos to develop and grow. This is referred to as NATURAL INCUBATION.

The hen will get up now and then to get something to eat and turn the eggs. Then she will sit back on the eggs till they hatch - 21 days.

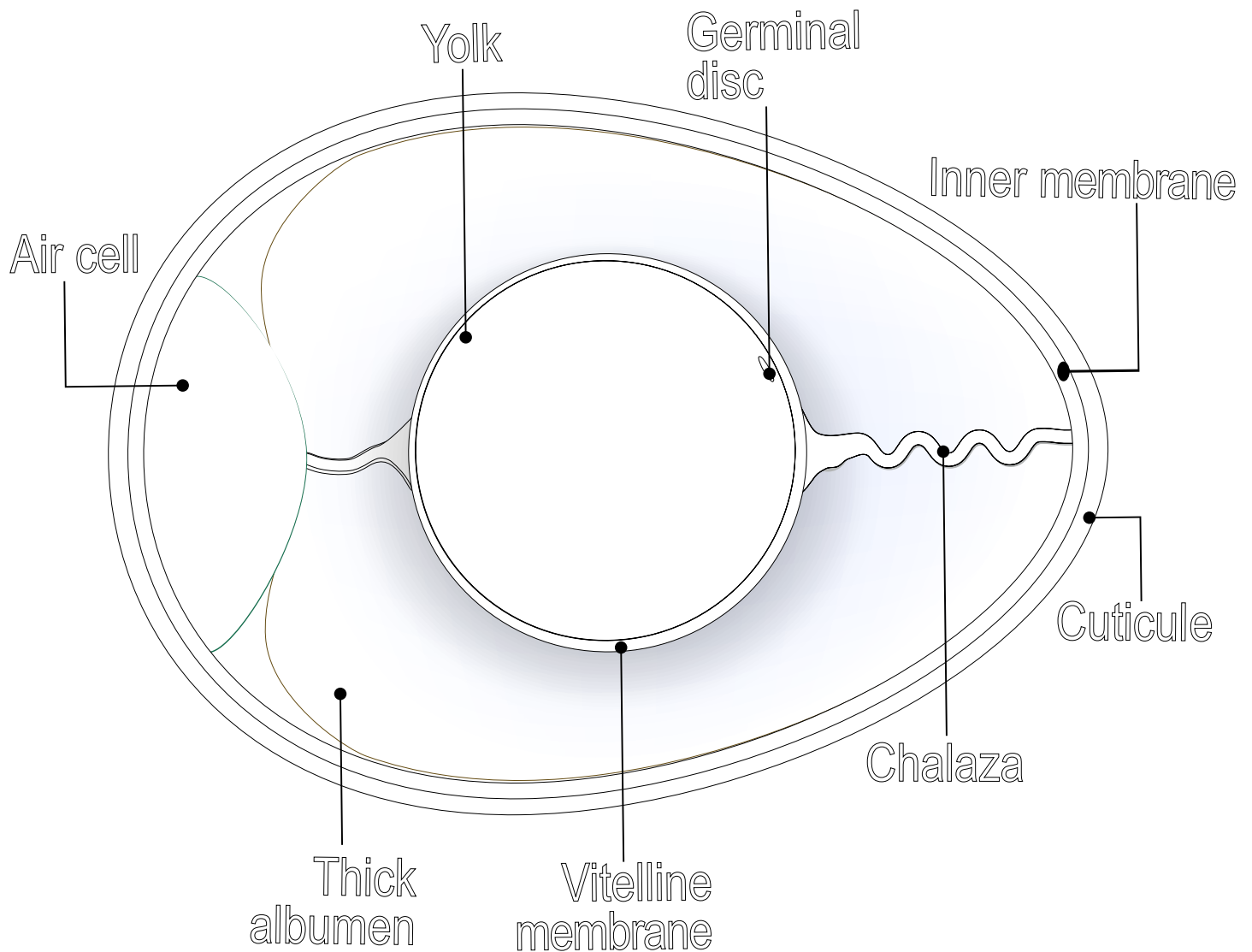
HATCHERY



On a large farm, the eggs are collected and shipped to the **HATCHERY** where they are incubated in large machines called **INCUBATORS**. This is referred to as **ARTIFICIAL INCUBATION**.

Some people also purchase small table top incubators for hatching out their own chicks - or for hatching chicks in the classroom for students to see and enjoy!



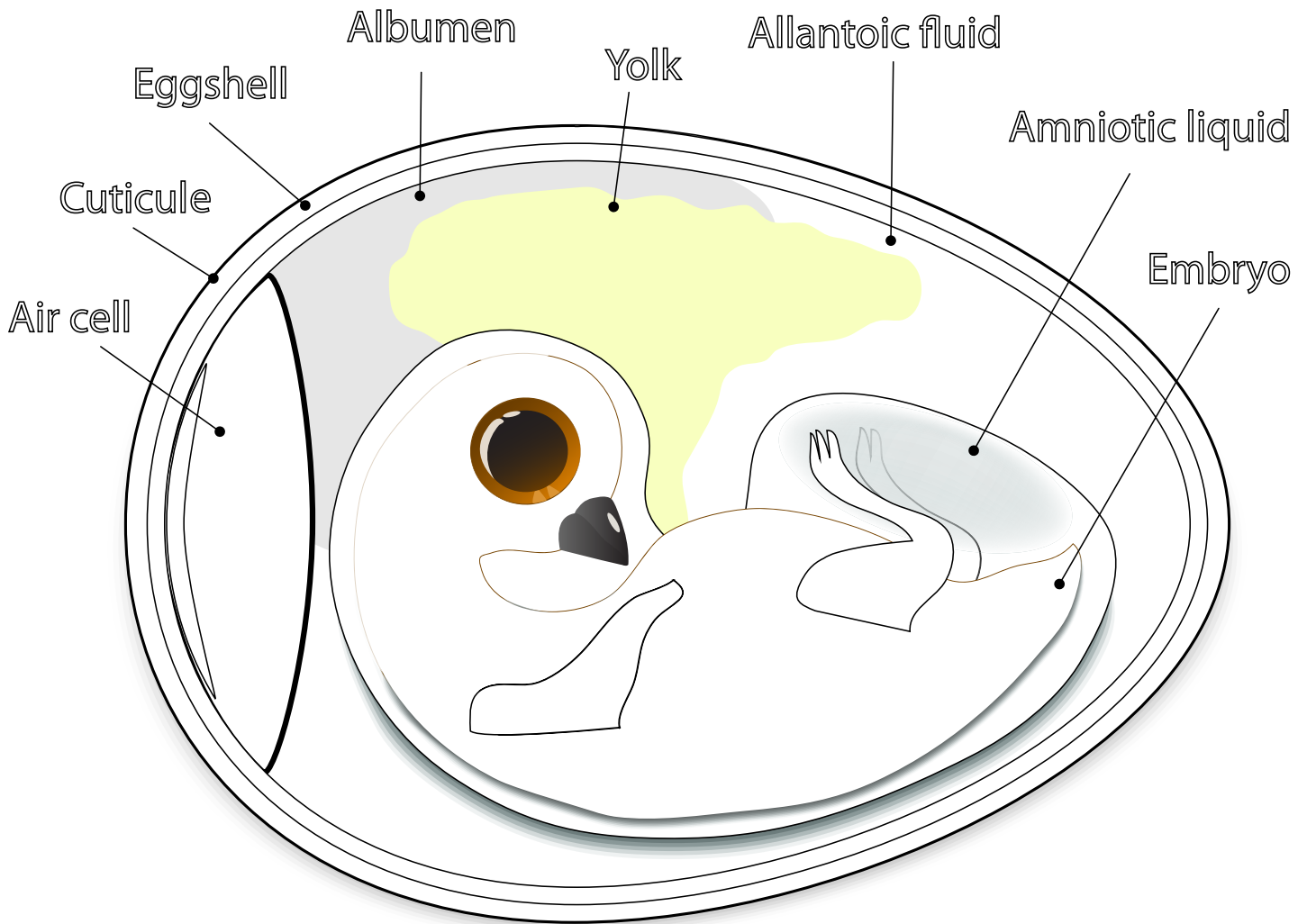


All eggs have the same composition. The center yellow part is the **YOLK**. The yolk is also called the **VITELLINE** and is surrounded by the **VITELLINE MEMBRANE**. On the yolk is the **GERMINAL DISC**. If the egg is fertile, this is where the **EMBRYO** will develop. The majority of the egg is made up of the **ALBUMEN**. The **CHALAZA** are strings of albumen that hold the yolk in the middle of the egg. In the large end of the egg is the **AIR CELL**. The air cell is important for embryo development.

The outside of the eggs is the **SHELL**. Under the shell is the **INNER AND OUTER SHELL MEMBRANES**. The shell is covered with the invisible **CUTICLE** that protects the egg from bacterial invasion.

All of these different parts of the egg play important roles in embryo development.

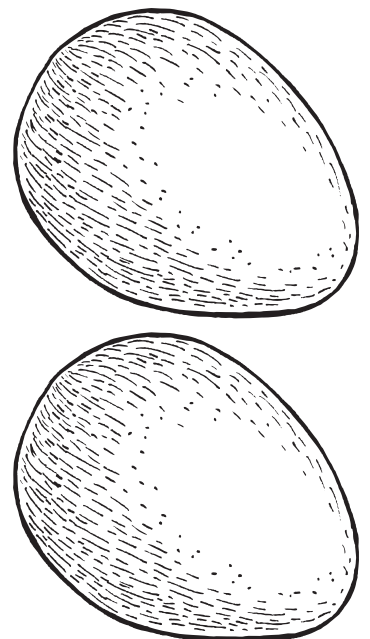
EMBRYO



Since chicken embryos are not attached to the mother like in mammals, all the **NUTRIENTS** the embryo will ever need must be contained in the egg. It is for this reason that eggs are nutritious for us to eat.

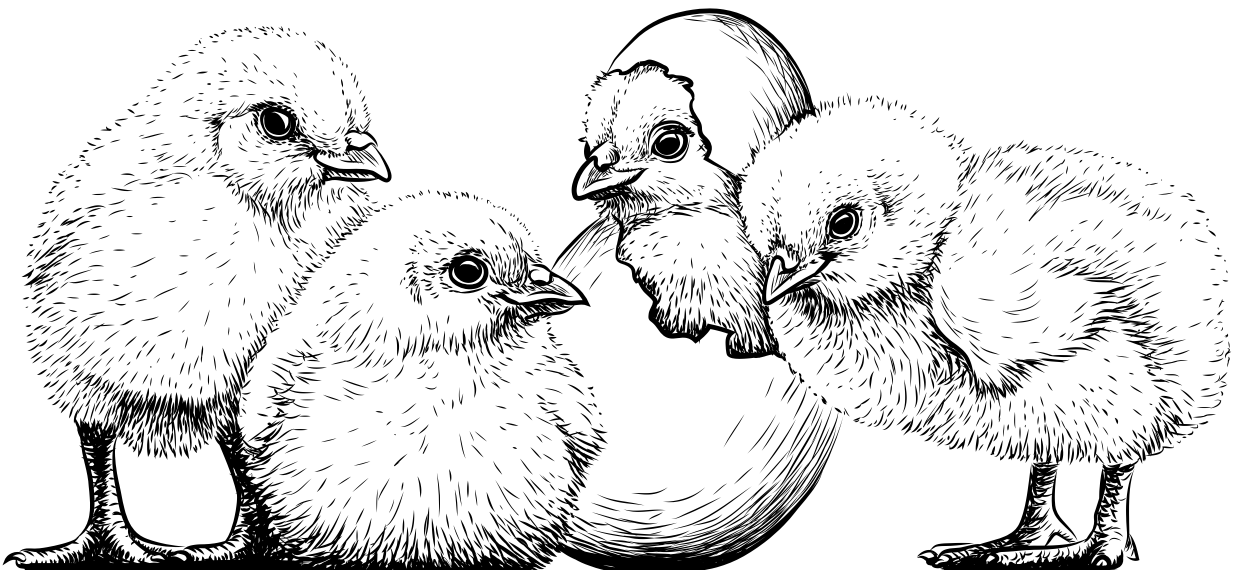
It is important to remember that the eggs in the grocery stores are from hens with no roosters so they are **INFERTILE** eggs and can never develop into a chick.

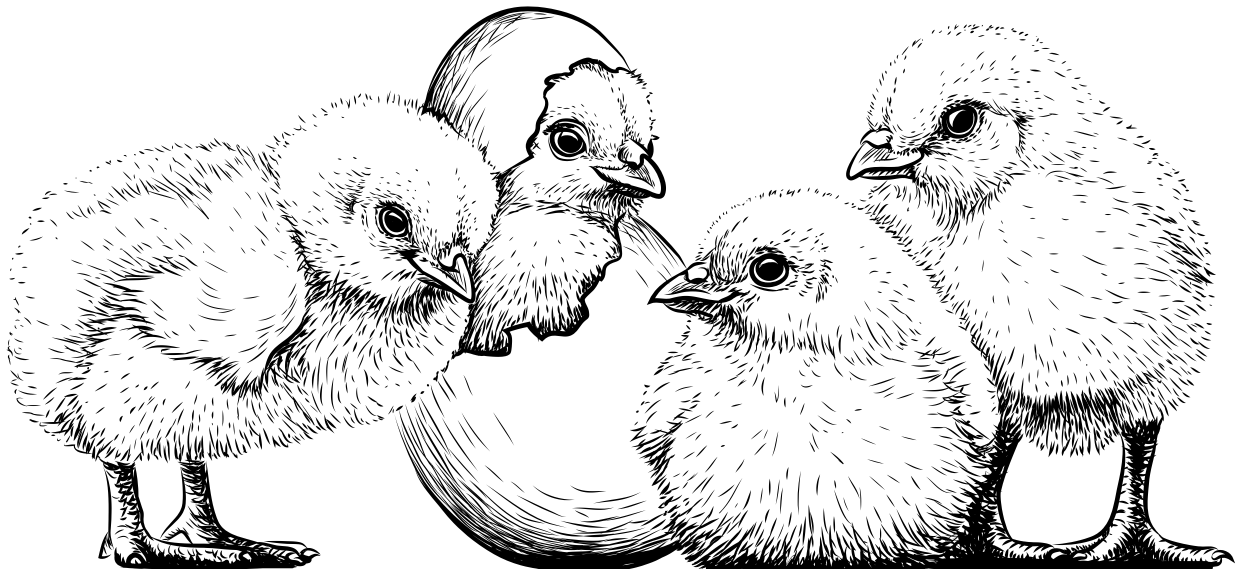
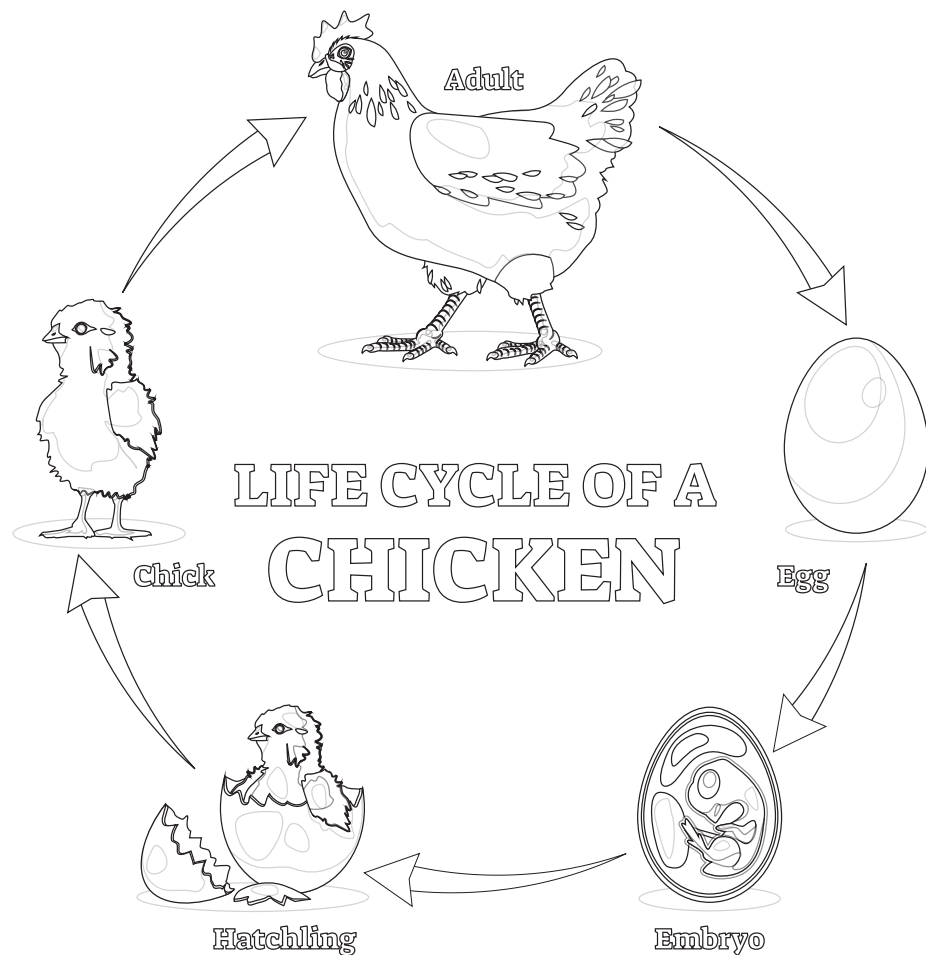
Eggs are very versatile and can be cooked in many different ways making them an excellent addition to any meal.





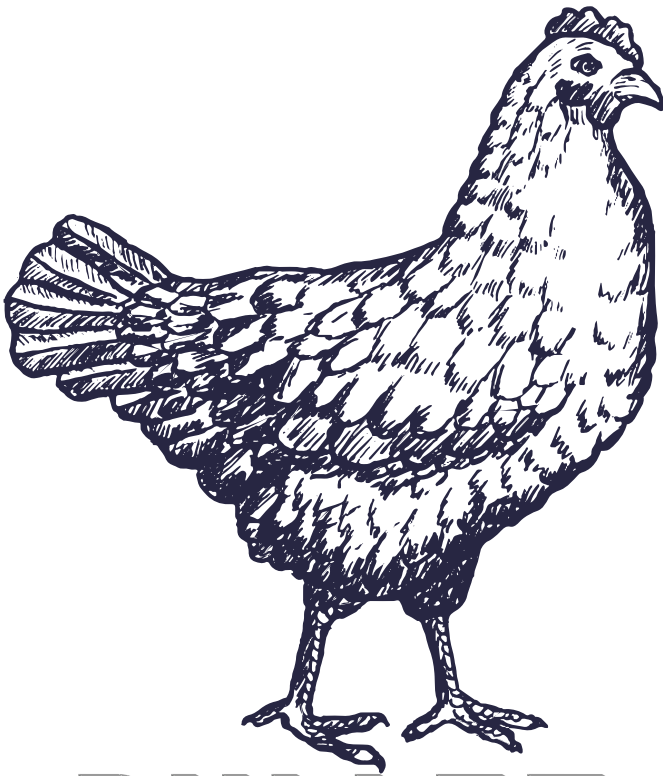
Whether using **NATURAL INCUBATION** with a hen in a nest, or using **ARTIFICIAL INCUBATION** using an incubator in a hatchery, it takes 21 days for a fertile egg to develop into a chick.



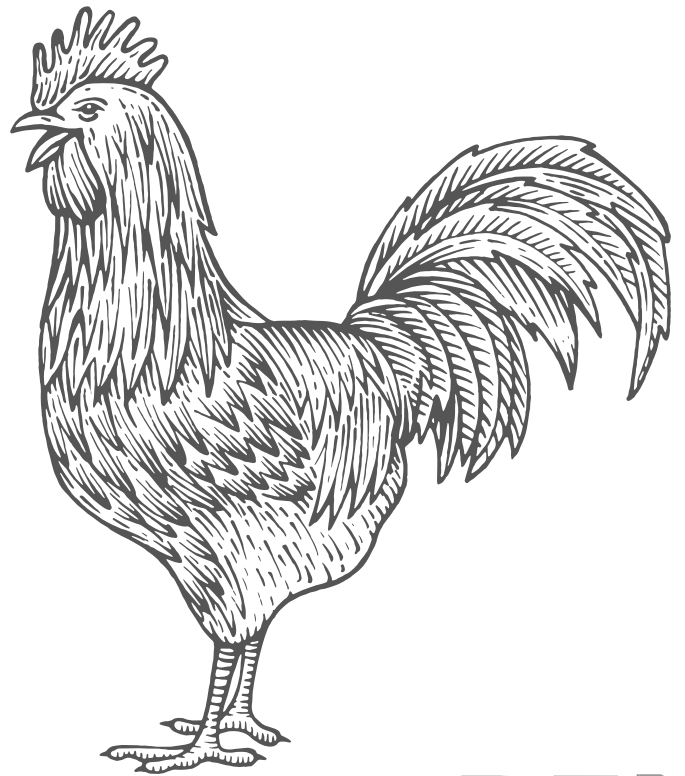


After 21 days of incubation, the CHICKS hatch out.

The chicks are said to be PRECOCIAL because they are able to get up and walk around shortly after they hatch. This is similar to calves, foals, and piglets.



PULLET

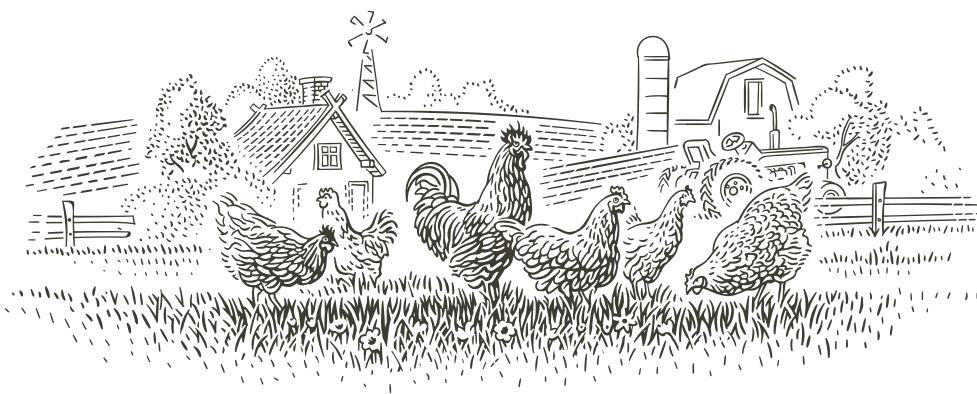


COCKEREL

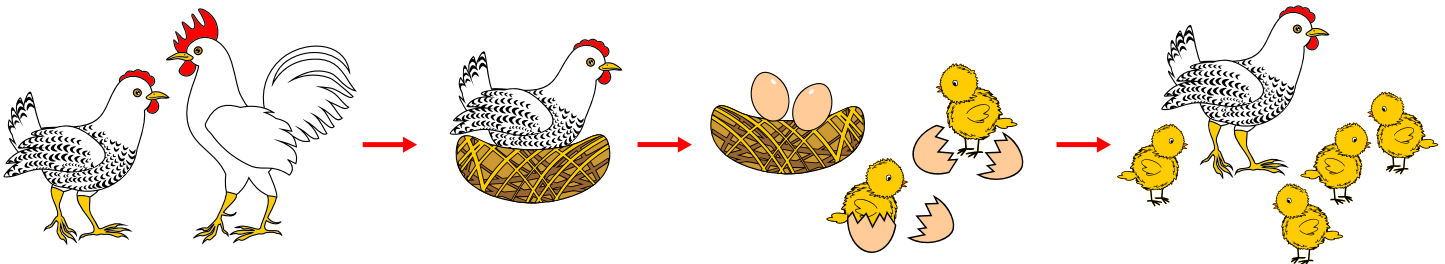
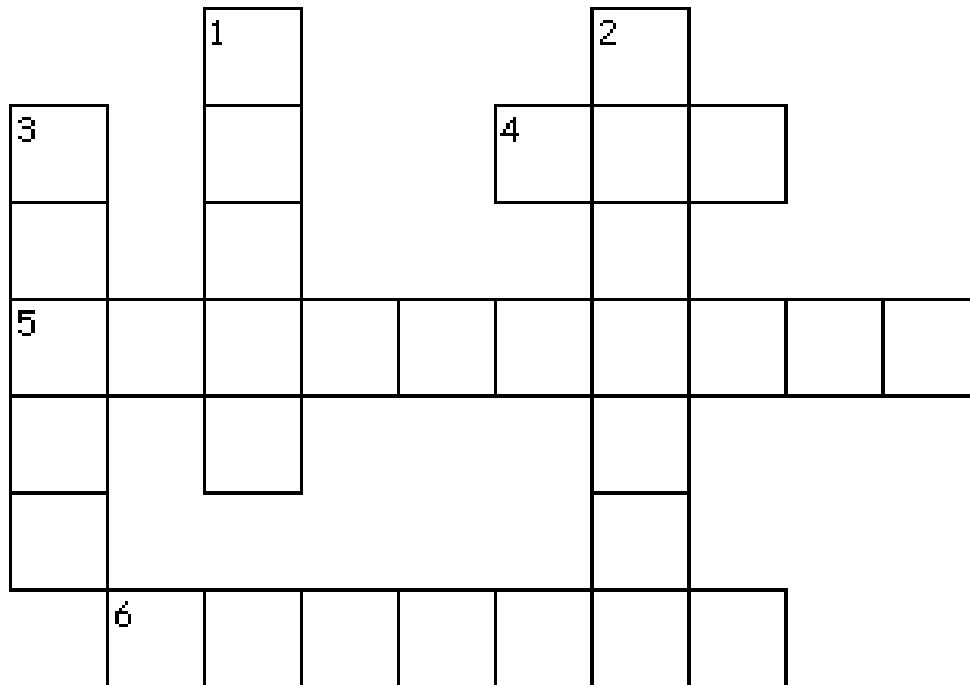
A PULLET is an immature female chicken.

A COCKEREL is an immature male chicken.

They grow up to become HENS and ROOSTERS which will mate and start the cycle all over again.



LIFE CYCLE OF A CHICKEN



Across

4. Female chicken
5. Conditions to allow embryos to become chicks
6. Male chicken

Down

1. When chicks emerge from an egg
2. Eggs with potential to become chicks
3. Baby chicken

