

the Incredible EGG

Ask your grownup to help you gently crack the egg into the bowl (save the shell for later). Take a close look at the egg.

The **yolk** contains half the protein and all of the fat and cholesterol in an egg. Yolks can be a bright yellow all the way through to a dark orange, depending on the breed of the hen that laid the egg.

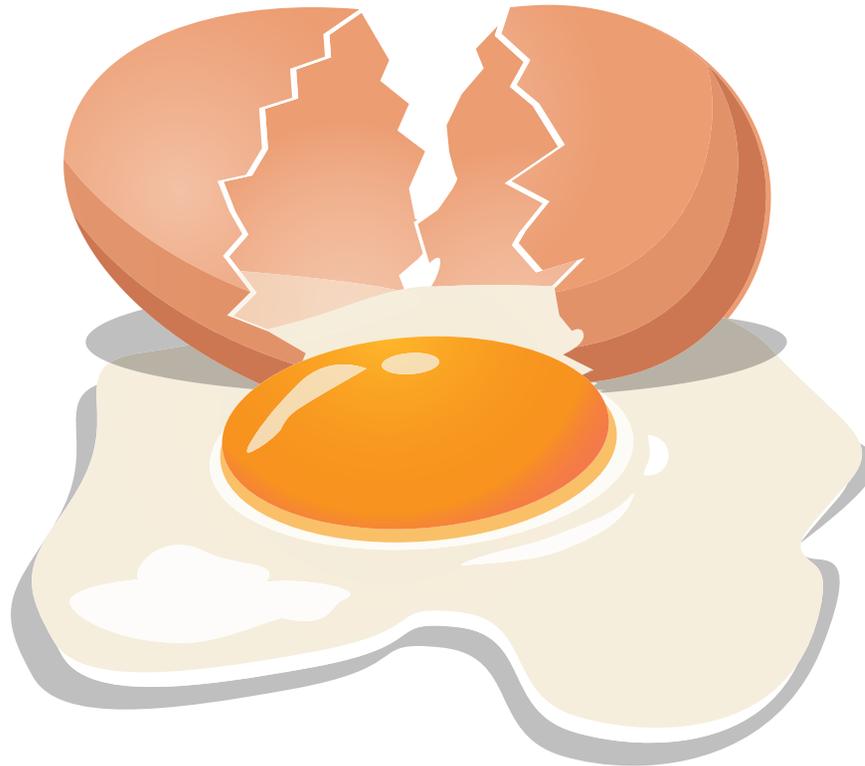
Do you see the white spot in the yolk? That is called the **germinal disc**. That is where a baby chick would start growing if the egg was fertilized. The eggs we buy to eat are not fertilized and could never grow into a chick.

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Aren't eggs fascinating? You can learn more by closely examining a chicken egg from your refrigerator. Ask your grownup to help you with this exploration.

You will need: An egg, a shallow bowl or pie plate, a toothpick, and a paper towel or paper plate.



Look at the stringy stuff at the top and bottom of the yolk. These are called **chalazae** and they help to hold the yolk in the middle of the egg so it doesn't get stuck to the sides. You can use your toothpick to gently move the parts around.

Look at the consistency of the yolk and the white. The egg white can also be called the **albumen**. If the egg was fertilized, both would provide food for a growing chick.



Now take the **shell** and put it on a plate or paper towel. Shells can have up to 17,000 tiny pores which allow air and moisture to pass through. Its outermost layer, called the bloom, helps keep dust and bacteria out of the egg. Shells are made up almost entirely of calcium carbonate.

If you cracked the egg gently enough you should be able to see the **air space** at the bottom (wider end) of the egg. The bigger the air space on your egg, the older it is.

Before the chick hatches it breaks through the membranes and takes its first breath. What is a **membrane**? It's that stretchy white stuff attached to the shell and each shell has two! An inner and an outer membrane protects the growing chick and strengthens the shell. Can you peel the two apart? It is messy, but fun. How long a piece can you peel?

When you are done examining your egg don't forget to wash your hands!

Created by
Joanne Hasbrouck, Museum Educator

Scientists often make diagrams of the objects they study.

Can you draw the parts of an egg and label them using the terms below?

Shell

Membrane

Air space

Chalazae

Germinal disc
(white spot)

Yolk

Albumen (white)

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EGG

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