





# Chapter 7

## Eggs

Did you know a hen can lay 250 to 300 eggs a year? That’s a lot of eggs! In the United States, chicken eggs are the most popular, but you can eat duck eggs, goose eggs, ostrich eggs and more. In this chapter, we will focus on chicken eggs.

Chicken eggs are an excellent source of protein, vitamins and minerals. However, a microorganism called Salmonella can infect eggs and make you sick. Thoroughly cooking eggs makes them safe to eat because cooking kills Salmonella. To stop foodborne illness, be sure to wash your hands after touching raw eggs and never eat raw eggs.

Enjoy your eggsellent adventures with eggs!

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# Egg Spectrum



## Did you know different types of chickens lay different colored eggs?

Most chickens lay white or light brown eggs. Some chickens can lay eggs that are green or blue. An easy way to tell what shell color egg a chicken will lay is to look at her earlobe. Their earlobes are little hairless spots on the sides of their heads. Hens with white earlobes lay white eggs, while hens with red earlobes lay brown eggs. Other breeds are capable of laying eggs that are blue, or even green.

Sometimes you can find these colorful eggs at your local farmer's market. Unfortunately, grocery stores only have white or brown eggs. Wherever you go, make sure to buy eggs that are not cracked. Also, be sure not to wash eggs before storing them. Washing them may remove the invisible, protective coating that surrounds the shell. Egg shells are porous, destroying the outer coating can allow bacteria to get inside the egg.

No matter what the color, eggs are good for you. Eggs are high in protein, vitamins, and minerals. The protein found in eggs provides our bodies with important **amino acids**. Amino acids are the building blocks of protein. Let's find out about the appearance and prices of different sizes of eggs.

### DOODLE BUGS

In the reading, underline what part of the chicken will tell you what color eggs they will lay.

Circle what is needed to build protein in the reading.

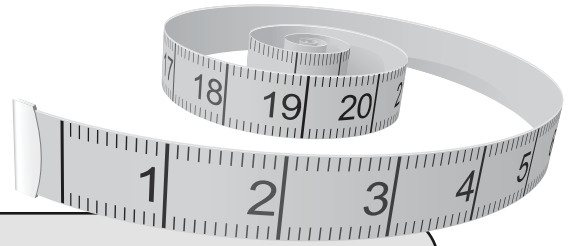
Where are you more likely to find a green egg? (Circle one)

Grocery Store

Farmers Market

# MATHEMATICS EXPLORATIONS:

## Egg Sort



### Your group will need:

- 1 Extra Large white egg, boiled
- 1 Medium white egg, boiled
- 2 plates
- 1 measuring tape
- 1 manual or electronic scale
- 1 pencil

### Things to know:

Circumference = distance around

Yolk = yellow portion of egg

Using the categories in the table below, predict what differences exist between an Extra Large and Medium-sized egg. Your teacher will provide you with Extra Large and Medium boiled eggs. Measure the length, circumference, and weight of each egg. Record your observations of the shell and yolk color. To reveal the egg yolk, peel the eggshell and remove the egg white. Finally, calculate the cost of purchasing Extra Large versus Medium eggs. The extra large egg costs \$0.30 per egg and the medium egg costs \$0.20 per egg.

**Prediction:** \_\_\_\_\_

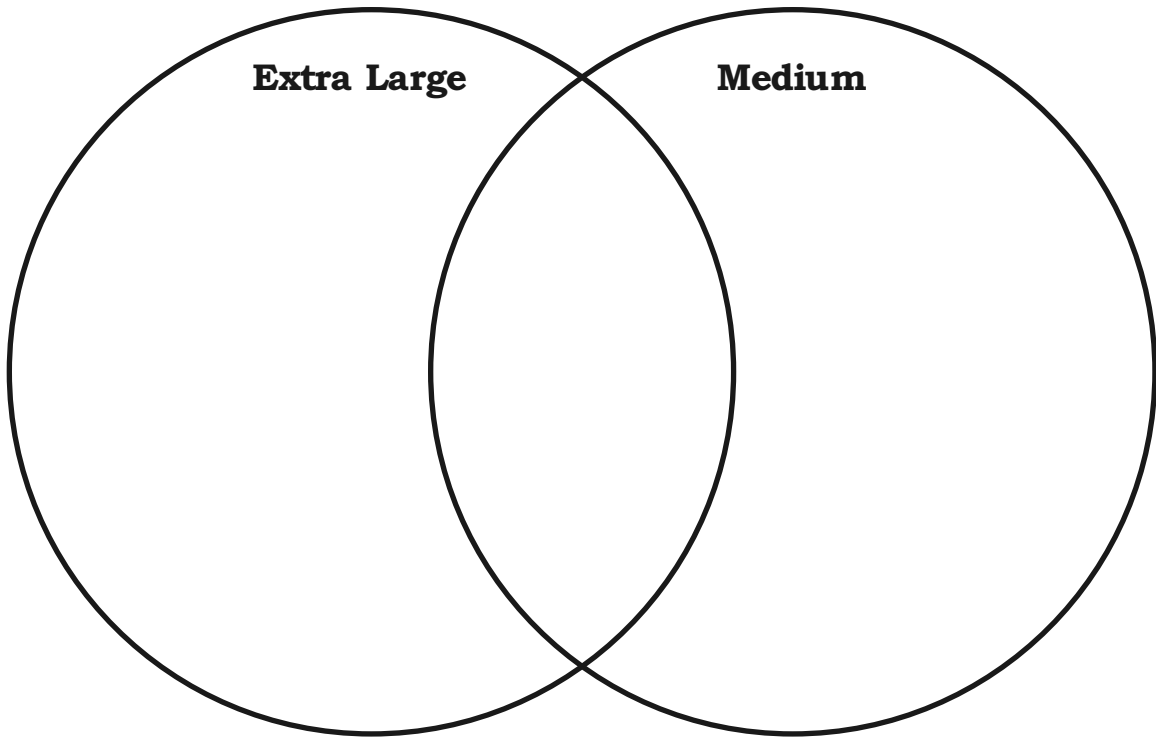
		Extra Large Egg	Medium Egg
<b>Length</b>			
<b>Circumference</b>			
<b>Weight (unit = _____)</b>	<b>Whole</b>		
	<b>Yolk</b>		
	<b>White</b>		
<b>Shell Color</b>			
<b>Yolk Color</b>			
<b>Price per dozen (12)</b>			

## MATHEMATICS EXPLORATIONS:

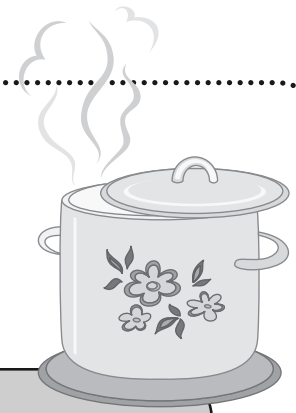
### **Egg Sort (continued)**

#### **Venn diagram**

Use the information you collected about Extra Large and Medium-sized eggs to fill in the Venn diagram below. List the characteristics that were different under each egg. List the characteristics that were similar in the middle.



## FUN WITH FOOD: **Eggs-periment**



### **You will need:**

- 1 clear jar with lid
- 1 burner
- 1 pot with a lid

### **PREP TIME: 5 minutes**

- 1 egg
- 1 cup white vinegar
- Help from an adult

Observe the changes a hardboiled egg goes through after being preserved in vinegar. Record its changes and describe the differences before and after the egg was stored in vinegar. Predict what you think will happen to the egg.

**Prediction:** \_\_\_\_\_

### **Vinegar Eggs-periment!**

1. Place the egg in the pot.
2. Pour enough cold water in the pot to cover the egg.
3. Turn the burner on high and wait for the water to boil.
4. When the water begins to boil, wait 3 minutes.
5. After 3 minutes of boiling, take the pot off the burner and place the lid on the pot, wait 8-10 minutes.
6. Pour cold water on the egg and let it cool.
7. Pour 1 cup of white vinegar in the jar.
8. Carefully place the egg in the jar and close the lid tightly.
9. Wait 3 days. Take your egg out to see what happened!

### **Fun Fact**

Egg shells are made of calcium. The acid in the vinegar breaks down the calcium in the shell and leaves only the membrane.

FUN WITH FOOD:  
**Eggs-periment**

**Record and draw your observations**



Day 1 \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A large, empty rectangular box with a black border, intended for drawing observations on Day 1.

Day 2 \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A large, empty rectangular box with a black border, intended for drawing observations on Day 2.

Day 3 \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A large, empty rectangular box with a black border, intended for drawing observations on Day 3.

Final Product \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A large, empty rectangular box with a black border, intended for drawing the final product.

\_\_\_\_\_  
\_\_\_\_\_

# Proficiency Questions

**Circle the best answer:**

**1. What color earlobe does a chicken have if she lays white eggs?**

- a. red
- b. brown
- c. white
- d. none of the above

**2. Amino acids are:**

- a. not good for people
- b. not found in eggs
- c. used to build protein
- d. none of the above

**3. What is the length of this egg?**

- a. 1 in
- b. 2 in
- c. 2.5 in
- d. 4 in

