

# Jelly Bean Egg Challenge

## Teacher Directions



### Materials

- Plastic eggs
- Jelly beans
- Paper plates
- Calculators
- Scales or pan balances
- Student activity pages
- Class Data Chart

### Advanced Prep

- Count out enough plastic eggs for each student to have one plus two extras.
- Fill the eggs with a random number of jelly beans. (Small jelly beans work best).
- Close each egg and tape it shut.
- Number each egg with a permanent marker. Label one of the extra eggs “Mystery Egg” and the other “Demo Egg.”
- Duplicate one copy of the first 2 activity pages for each student.
- Prepare a class data chart such as the one on the last page by creating a poster, making an overhead transparency, or displaying it on an interactive whiteboard.

### Teaching the Lesson

- Optional - If possible, when your students are out of the room (directly prior to the activity) hide the eggs. Do not hide the Mystery Egg or the Demo Egg. When the students enter the room, allow them to search for an egg and tell them that they must pick up the first egg they see and return to their seats.
- If you didn't want to start with an egg hunt (above), put all the eggs into a basket or box and allow each student to select one. Tell them not to open their eggs. Give each student a paper plate so their jelly beans won't roll on the floor or touch the desktop.
- Have each student record the Egg Number on the line on the worksheet.
- Follow the steps on the worksheet to guide you through the lesson. Prepare some type of “sponge” activity for students to do while they are taking turns weighing their eggs. You might use a worksheet that reviews methods for changing fractions to decimals and percents, or just have your students read independently during this step.
- After everyone has weighed their egg, have them open the eggs and count the beans. Then use the Demo Egg to model how to do the math involved in the lesson. If your students have not learned how to convert fractions to decimals and percents, just tell them to leave those columns blank. Calculators would also be helpful for this activity.
- Consider assigning “Egg Buddies” who work together and check each other's work. They should each have their own egg, but they can work together to do the math.
- Note: You can differentiate your instruction by doing a quick mini-lesson for your advanced students and allowing them to work together to complete the last two columns.
- While students are working on their charts, allow them to come forward and add their data to the class chart.
- After students have completed their tally charts and graphed their data, guide the class through Step 4. At the end of the lesson. let one person weigh the Mystery Egg and announce the weight. Then have everyone predict the number of beans it contains. Finally, open the egg, count the jelly beans, and reveal the actual number.

# Jelly Bean Egg Challenge

Name \_\_\_\_\_



## Step 1 - Estimate and Weigh

Egg # \_\_\_\_\_

- How much do you think your egg weighs? \_\_\_\_\_
- Weigh your egg. What is the actual weight of your egg? \_\_\_\_\_
- What is the difference between your estimate and the actual weight? \_\_\_\_\_

## Step 2 - Count and Compute

- What is the total number of jelly beans in your egg? \_\_\_\_\_
- Find your Egg Number on the Class Data Chart. During the next activity, record your egg's weight and number of jelly beans next to your number.
- Sort your jelly beans by color. List the colors on the chart below and tally the number of jelly beans of each color. Then write the fraction, decimal, and percent of each color as compared to the total. Use a calculator if needed.

Color	Tally Marks	Number	Fraction	Decimal	Percent

### Step 3 - Graph Color Data

- Would a bar graph or a line graph be more appropriate for this data? Why?

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- Use the grid below to create a graph of your color data. Be sure to include a title, a scale, and appropriate labels for the X and Y axis.


### Step 4 - Analyze and Predict

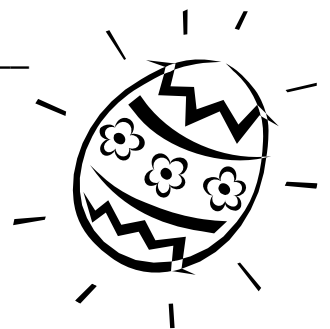
- Use the Class Data Chart to figure the range, mode, median, and mean of the egg weights. Record your results below:

**Class Data:** Range \_\_\_\_\_ Mode \_\_\_\_\_ Median \_\_\_\_\_ Mean \_\_\_\_\_

- Weigh the Mystery Egg. How much does it weigh? \_\_\_\_\_
- Predict how many jelly beans the Mystery Egg contains: \_\_\_\_\_
- Open the Mystery Egg and count the jelly beans.

What is the actual total? \_\_\_\_\_

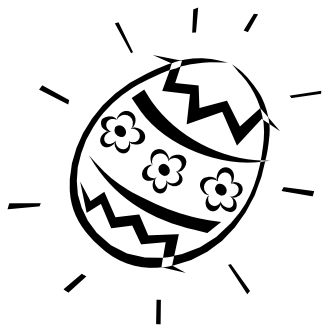
What is the difference between your prediction  
and the actual total? \_\_\_\_\_



# Class Jelly Bean Data Chart

Egg Number	Weight	Number of Jelly Beans
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Egg Number	Weight	Number of Jelly Beans
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		



## Jelly Bean Egg Weights

Range \_\_\_\_\_ Mode \_\_\_\_\_

Median \_\_\_\_\_ Mean \_\_\_\_\_

## Mystery Egg Predictions

- Weigh the Mystery Egg. How much does it weigh? \_\_\_\_\_
- How many jelly beans do you think it contains? \_\_\_\_\_
- Open the Mystery Egg and count the beans. Total? \_\_\_\_\_