

## Lesson Plan

**Grade Level & Subject Area:** First Grade / Counting & Comparing

**Standards/Framework (State Standards, Content Standards, INTASC Standards)**

Operations and Algebraic Thinking	Add and subtract within 20
AR.Math.Content .1.OA.C.5	Relate counting to addition and subtraction (e.g., by <i>counting on</i> 2 to add 2)
AR.Math.Content .1.OA.C.6	<p>Add and subtract within 20, demonstrating <i>computational fluency</i> for addition and subtraction within 10</p> <p>Use strategies such as:</p> <ul style="list-style-type: none"><li>· <i>Counting on</i></li><li>· Making ten (e.g., <math>8 + 6 = 8 + 2 + 4 = 10 + 4 = 14</math>)</li><li>· Decomposing a number leading to a ten (e.g., <math>13 - 4 = 13 - 3 - 1 = 10 - 1 = 9</math>)</li><li>· Using the relationship between addition and subtraction (e.g., knowing that <math>8 + 4 = 12</math>, one knows <math>12 - 8 = 4</math>)</li><li>· Creating equivalent but easier or known <i>sums</i> (e.g., adding <math>6 + 7</math> by creating the known equivalent <math>6 + 6 + 1 = 12 + 1 = 13</math>)</li></ul> <p><b>Note:</b> <i>Computational fluency</i> is demonstrating the method of student choice. Students should understand the strategy he/she selected and be able to explain how it can efficiently produce accurate answers.</p>

<b>Measurement and Data</b>	<b>Represent and interpret data</b>
<b>AR.Math.Content.1.MD.C.6</b>	<ul style="list-style-type: none"> <li>· <b>Organize, represent, and interpret data with up to three categories, using tally tables, picture graphs and bar graphs</b></li> <li>· <b>Ask and answer questions about the total number represented, how many in each category, and how many more or less are in one category than in another</b></li> </ul>

**Theme/Series of Lessons**

N/A

**Time**

1 day 1 hour Mathematics lesson

**What do the students already know?**

My students will already know how to count, recognize which number is smaller and bigger, add up the sum of a set of data, and understand charts.

**Objective (What are the students' going to accomplish):**

Students will count and categorize candy

Students will interpret data

Students will use Excel to categorize their data

Students will compare and contrast

Students will use their data to form a graph

Students will answer questions about their conclusions

**Materials:**

Fun Size Skittles

Fun Size M&M's

Fun Size Sour Patch Kids

Notebook paper

Pencil

Laptop

Excel Template

Dry erase board

Dry erase marker and eraser

Assessment worksheet

**Procedure:**

For this lesson, I will introduce it to them as "The Candy Project". I will get them excited and provide them with an overview of the activity (this usually seems to allow the lesson to run more smoothly). I will give every child a fun size package of Skittles, M&M's and Sour Patch Kids. I will tell them NOT to eat them. I will tell them that they are only allowed to eat their candy if they listen to instructions and do their project to the best of their ability. I will tell them the activity. Each student will have a sheet of paper at their desk with a pencil. When everyone has their candy, they will open one bag at a time and record on their sheet of paper how many of each color they have. I will take these data sheets up at the end of the day to see how each child took their data in their own unique way. They will do this for all 3 candy types.

Then, as a class I will ask them questions to get their minds rolling such as “Who had more Sour Patch Kids than Skittles?” or “Who had more red skittles than green skittles?” or “ Who had more than 12 M&M’s in their bag?” We will have a class discussion about how it is always random how many pieces of candy we get in each bag.

Then, I will draw a few sample graphs on the board and ask what type of graph it is. For example, I will draw a bar graph and ask the students to raise their hand and tell me what type of graph it is.

All of the students will be directed to get out their personal laptop. Every classroom laptop will have the Excel Template I created on their home screen. I will direct them to open it. I will then allow them to fill in all 3 tables according to their own sets of data. This will allow them to see their data come to life and see the graphs change and their data changes.

When I see that everyone is done filling in their data, I will hand every student a worksheet/assessment. This will allow me to see their data and see how well they understood their data. A few questions might be:

Which bag of candy that you opened had the most pieces of candy?

How many brown M&Ms did you have?

What was your maximum (biggest number) for all candies?

## **Assessment**

I will know how well my students grasped this concept by their individual worksheets they fill out at the end of the lesson.

## **A Brief Description Of The Entire Lesson - Plus Any Additional Information to be Included:**

This lesson will be a fun, hands on experience for the students to understand graphs, comparison, and work on old skills such as counting, and colors.