

## **Lesson Plan**

**Lesson: M&M Lab**

**Length: 45 Min**

**Age or Grade Level Intended: grades 5-7**

**Academic Standard(s): MA.5.1, MA.5.2, and MA.5.6**

### **Performance Objective(s):**

1. Students will practice percentages
2. Students will compare percentages
3. Students will practice fractions

**Assessment:** The students will be taking M&M's and they will be finding percentages to certain problems, comparing one percentage to another trying to distinguish the bigger or smaller of the two, they will also find fraction's of number during this lesson, I will be observing the lesson by walking around and making sure all the students get at least 4 out of 5 on finding percentages, 4 out of 5 on comparing percentages, and 4 out of 5 on finding the right fraction.

### **Advance Preparation by Teacher:**

1. Have students already divided into groups of two
2. Have M&M lab worksheet printed
3. Bag of M&M's for each group
4. Calculator for each group
5. Markers or crayons-brown,red,orange,green,blue, and yellow

### **Procedure:**

**Introduction/Motivation:** Talk to students about how you find the percentage of the grades they get and how to find fractions. Ask questions like, what is a fraction? What is a Percentage? Then tell students if they achieve the certain expectations they can eat the M&M's at the end of the

1. Give directions. Explain the lab and the different activities involved in the lab.
2. Demonstrate the tasks required in the lab, such as computing percents.
3. Ask the students if they have questions over the lab before they begin.
4. Sort M&M's according to color. (Gardner: Visual/Spatial)
5. Calculate the number of each color of M&M's and record the data on the first lab sheet, according to the corresponding space for each color. (Gardner: Logical/Mathematical)

**Describe what answers did you get for this part? (Blooms: Knowledge)**

6. Graph the number of each color of M&M's on the graph by using crayons or markers to color in the amount of M&M's. (Gardner: Logical/Mathematical)

**Why would we have you match the color of markers with color of M&M'S? (Blooms: Comprehension)**

7. After students have graphed the number of each color of M&M's calculate the total number of M&M's. (Gardner: Logical/Mathematical)
8. Have students calculate fractions for each color of M&M's in their bag. Record this data on the lab sheet. (Gardner: Logical/Mathematical)

**Do you think the other groups will have the same answers?**

9. Have students calculate the percent of each color of M&M s in their bag. Record this data on the lab sheet. (Gardner: Logical/Mathematical)

10. Have the students share their group's information.

11. Record this information on the chalk board so that all students can see it, and have students record this information on the appropriate lab sheet.

12. Have students use each individual group's data to compare class results. Record these results on the appropriate lab sheet. (Bloom: Analyses)

**Get with group and discuss what kind of results did you expect to get? (Bloom: Evaluation)**

**Why do you think you got these results?**

**Closure:**

Have students talk about results with the whole class. Review the math concepts practiced in the lab fractions, percents. Ask students to discuss the relationship between fractions and percents. Have students discuss the lab in general did they like it, what was the hardest part, what was the easiest part.

**Adaptations/Enrichment:**

**Student with Learning disability in reading comprehension**

I would place maybe my best reader in the class with this student to help him read or have a teacher's aide in the class room to help the student.

**Student with ADHD**

I would always have this student putting the M&M's on the paper so he could be having fun and still learning all at once so he would be out of his seat always keep him interacted.

**Student with Gifts and Talents in Creativity**

I would maybe have this student color or design there papers the way they want and express their talents that way or maybe design there M&M's on their paper creatively.

**Self-Reflection:** I could have all the students come up with their own M&M problem showing that they know the concept by showing the answer to the class. My observation of the students teaching their own M&M problem to the students to see if they can move to the next lesson or need to be re taught the first lesson. I would have the cooperating teacher give me feedback or film my lesson to maybe make the next time I teach this lesson better