

# *Mr. G's Math Marvels*

**Lesson:** Hands-On- Gallon Boy/Girl

**Facilitator:** Gary Walton, Mr. G.,  
BECON Studio Teacher

---

## **Lesson Plan**

---

**Grade Level:** 3

**Sunshine State Standard:** MA.B.1.2.2, MA.B.2.2.2, MA.B.4.2.1

### **Objective:**

- Students will be able to understand the units of capacity in the customary system.
- Students will be able to show the equivalency to a gallon using cups, pints, and quarts.
- Students will be able to convert measures within the same system to solve real world problems.

### **Activity:**

1. Students begin with four pieces of paper of four different colors and all congruent in size. (6" x 9").
2. Students choose the darkest of the four colors to represent gallons and with the paper in the vertical position, write 1 gal in the middle of the paper with a crayon or marker. Under 1 gal, students write 128 oz to represent the number of fluid ounces in a gallon.
3. Students choose a second piece of paper. With the paper in the vertical position, fold the paper in half. Rotate the paper into the vertical position and fold it in half again.
4. Open the paper and the result is four congruent rectangles. In the middle area of each of the rectangles, write 1 qt to represent quarts. Then under 1 qt write 32 oz to represent the number of fluid ounces in a quart.
5. Cut the four quarts apart and lay them on top of the gallon so that students can see that it takes four quarts to equal one gallon.

6. Take another one of the four original 6" x 9" pieces of paper and place it in the vertical position.
7. Fold the paper in half by bring the top to the bottom. Rotate the paper so that it is in the vertical position and then fold it in half again. You have quarts again. Rotate the paper so that it is in the vertical position.
8. Fold the paper in half this time by bringing the right over the left. The result is long skinny rectangles.
9. Open the paper up all the way and the result is 16 congruent rectangles. In the middle of each one, write 1 pt to represent pints. Under each 1 pt, write 16 oz to represent the number of fluid ounces in each pint.
10. Cut out the sixteen pints and place two of them over the quart to prove that it takes two pints to equal one quart.
11. Take the last piece of paper and follow the same instructions given in 6, 7, and 8. Then open the paper all the way. Cut the paper in half so that the two cut sections have four long skinny rectangles.
12. Now fold each of these sections in half so that you now have 8 small congruent rectangles in each section. You will have a total of 16 small congruent rectangles in all. In the middle of each of these rectangles, write 1c to represent that there are 16 cups in a gallon. Under each 1c write 8 oz to represent the number of fluid ounces in a cup.
13. Cut apart the sixteen rectangles and lay two of them on a pint to demonstrate that it takes two cups to equal a pint.
14. Use a large paper plate to create a head. Mr. G. will demonstrate the correct way to cut the plate so that it will have a neck. Various hair styles will be illustrated that can also be cut from the plate.
15. Create a face on the plate and color it.
16. Follow Mr. G's directions for assembly.

**Materials Needed:** Four different colors of construction paper each measuring 6" x 9", scissors, crayons or colored pencils, and paper plate.