

## Enhancement Activities/Strategies for Gifted/High Ability Learners: Sample MATH Learning Plan

### Big Idea/ Topic

Complete understanding of division of fractions and extend the notion of number to the system of rational numbers, which includes negative numbers

### Standard Alignment

**Apply and extend previous understandings of multiplication and division to divide fractions by fractions.**

- **MGSE6.NS.1** Interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions, including reasoning strategies such as using visual fraction models and equations to represent the problem.

**Compute fluently with multi-digit numbers and find common factors and multiples.**

- **MGSE6.NS.2** Fluently divide multi-digit numbers using the standard algorithm.
- **MGSE6.NS.3** Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.
- **MGSE6.NS.4** Find the common multiples of two whole numbers less than or equal to 12 and the common factors of two whole numbers less than or equal to 100.

a. Find the greatest common factor of 2 whole numbers and use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factors. (GCF) *Example:  $36 + 8 = 4(9 + 2)$*

b. Apply the least common multiple of two whole numbers less than or equal to 12 to solve real- world problems.

### Advanced Research

**Congratulations!** You've been hired to work for an advertising company.

For your first assignment, you will need to design a billboard to help with business promotions. **The billboard has already been reserved and is 20 feet high. Your boss has given you the following requirements to keep in mind:**

- **Each letter should be 2 feet high**
- **There must be a ½ foot space between the rows of wording**
- **There must be a 1 ½ foot border at both the top and bottom of the billboard**

Your design matters! First, you will need to calculate how many lines/rows of words you can fit on the billboard. You will then create a nice display to “present” to your boss.

### Communication

First, create a rough draft on paper for your mathematical computations to discover how many lines/rows of space you will have on the billboard (using all the requirements listed above). Your Rough Draft is a necessary part of the process and will be included in your graded “presentation”.

After you find how many lines/rows you will need to design, you will need to decide what the billboard will say to successfully promote the business. Be creative and catchy – you may conduct research if needed to decide what works best for advertising purposes (document any findings on your rough draft). Your Billboard presentation can be displayed in many ways (Final Draft Poster, PPT, Word, or any other appropriate document), but you will need to convince/persuade your boss WHY you have chosen your particular message to put on the billboard with proof and evidence that it will draw in customers.

### Critical Thinking and Critical Problem-Solving Skills

Successful or back to the drawing board? Your boss wants a plan to measure the successfulness of your billboard design and if it helped the company. What measurable data can be used to determine if you need to redesign the board OR if you need a new design?

Test out your Final Presentation with someone at home (mom/dad, brother/sister, grandparents, cousin, neighbor, etc.). Have them complete the short survey below:

1. Was the presentation convincing?
2. Did I provide enough proof/evidence to support my math claim?
3. Suggestions of ways to improve?

Feel free to repeat this process several times before submitting your Final Presentation to be graded.

### Creative Thinking and Creative Problem-Solving Skills

Location – Location! Scout out your local area and find the perfect location for Billboard #2. Why did you chose this location? What “target audience” will see it the most?

Include all these findings/results in your Rough Draft and then include your choice of the official location in your Final Presentation.

### **Awareness of Self—Student’s Well-being**

Success does not always occur on the first try...even as adults. Plan B just gives us a chance to learn and do better the next time. Using the acronym M.A.T.H to represent the phrase “Math Allows Thinking to Happen”, create your own short acronym that can motivate you when you feel challenged or frustrated.

Create the visual display (Word, poster/picture, painted artifact, etc.) and attach this to your Final Presentation.