

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

### Big Idea/ Topic

- Understand place value
- Extend division to 2-digit divisors, integrate decimal fractions into the place value system and develop understanding of operations with decimals to hundredths, and develop fluency with whole number and decimal operations

### Standard Alignment

- **MGSE5.OA.1** Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- **MGSE.5.OA.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as  $2 \times (8 + 7)$ . Recognize that  $3 \times (18932 + 921)$  is three times as large as  $18932 + 921$ , without having to calculate the indicated sum or product.

### Advanced Research

**Party Planner Project:** Use your creativity to research and plan a party for 26 people. You can choose the purpose of the party (celebration, holiday, birthday, etc.). Use PowerPoint or Google Slides to organize your information.

1. What is the purpose of the party?
  2. Who will be there?
  3. Where will the party take place?
  4. What activities will be happening at the party (you might have games, entertainment like a DJ, etc.)?
  5. What food will be served?
  6. What decorations will you use?
  7. Any other expenses?
- For each slide, also include any costs involved. You will need to do some virtual shopping to determine expenses. You might want to shop at Amazon, Walmart, etc. Write the cost as a mathematical equation, using parentheses, brackets, and braces on each individual slide. For example, at a birthday party for my brother, we will need 2 dozen cupcakes (\$4.99 per dozen), 3 bags of chips (\$2.59 per bag), 6 2-liters of soda (\$1.55 per bottle), and 1 case of bottled water (\$4.57). The equation for drinks and food will be  $[(1.55 \times 6) + 4.57] + [(2 \times 4.99) + (3 \times 2.59)] = \$29.03$ .

- At the end of your slideshow (slide 8), total the entire cost for your party. Be prepared to share your party plan with others. Be sure your slideshow is appealing, organized, and clear. Double check all of your calculations!

This project takes approximately 120 minutes to complete.

## Communication

[Breakout EDU](#) (You can sign up for a free game if you don't have an account) [Maya Lewis Gets Directions](#) Digital Breakout games are an easy way to challenge students to collaborate, use critical thinking, and communication to “breakout” (like an escape room concept, but everything is digital). This game requires children to apply their understanding of interpreting numerical expressions. If this is your students' first experience with a Breakout Challenge, you may need to be prepared to give hints to help guide students. I find the best hints are questions to make them think more. Allow the students time to struggle before providing a hint. I encourage students to use the back of their recording sheet to write down solutions they try. Oftentimes, they will figure out the answer by working through what does not work. (*Handout on p. 4*)

## Critical Thinking and Critical Problem-Solving Skills

24 Game: Challenge your students to play the game 24 which requires students to use 4 numbers and various calculations to reach find the answer of 24. Here's a free [virtual version called Make 24](#).

Here's a similar [game \(Make a Number\)](#), but the target number changes in each problem.

Students may need scratch paper or a personal whiteboard to assist in solving the problems.

## Creative Thinking and Creative Problem-Solving Skills

Design a new clock for our classroom, but make it more mathematical! Your clock should not include the typical numbers 1 through 12. Write an expression to be in the place of each number on the clock. Challenge yourself to make it unique and include parentheses, brackets, and braces. Use a paper plate or construction paper to make your final product. (*Handout p. 5*)

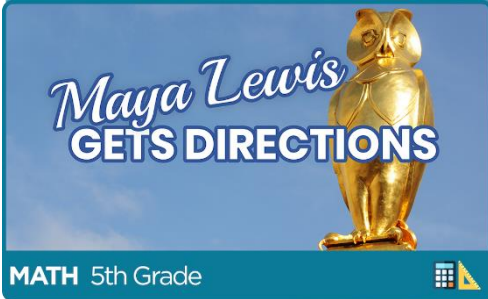
### Awareness of Self—Student’s Well-being

Using one of the two digital games, encourage students to collect data and set goals to improve speed and accuracy. For the [Make 24](#) game, how many problems can the student solve in 5 minutes? For the [Make a Number game](#), how long does it take to solve 10 problems in the game? What are some strategies for improving? Discuss with a partner or one-to-one with the teacher.

**Digital Breakout EDU Challenge Recording Sheet: Maya Lewis Gets Directions**






My Name \_\_\_\_\_

Names of the Students in My Group: \_\_\_\_\_



Maya Lewis is searching the French countryside for the La Chouette d'Or, the Golden Owl. Help her find the Golden Owl and complete her quest!

**Record the Correct Lock Combination for Each Lock**

Lock		Correct Combination				
	Directional Lock					
	Color Lock					
	Color Lock					
	Directional Lock					
	Shape Lock					

How do grouping symbols change an equation?

What is the order of operations?

Why does it matter to have a specific order to do operations?

Name \_\_\_\_\_

Task: Design a new clock for our classroom, but make it more mathematical! Your clock should not include the typical numbers 1 through 12. Write an expression to be in the place of each number on the clock. Challenge yourself to make it unique and include parentheses, brackets, and braces. Use a paper plate or construction paper to make your final product. For example, for 12 you could write  $[(4+3) + (40 / 8)]$



1

2

3

4

5

6

7

8

9

10

11

12