

Name: \_\_\_\_\_ . Date: \_\_\_\_\_ . Cohort: \_\_\_\_\_

## ***STEM End of Year Project: Create a STEM Board Game!***

During the remaining days of the school year, you will be designing your own board game. Remember all those great games you have played in your life? Well, now you can make your own; your own rules, your own design, your own questions! The only thing is, you must relate it to STEM. First, before you start thinking about your “new” design, brainstorm a list of board games that you like to play, or ones that you have played before.

### ***Have you ever played these Board Games?***

- 1313 Dead End Drive
- Apples to Apples
- Backgammon
- Battleship
- Checkers
- Clue
- Connect Four
- Cranium
- Guess Who?
- Life
- Mall Madness
- Monopoly
- Mouse Trap
- Operation
- Payday
- Pictionary
- Rummikub
- Scrabble
- Sorry!
- Trivial Pursuit
- Trouble
- Yahtzee

Now, it's **your** turn to create a board game based off of STEM topics and concepts you have learned this year!

If you would like, you can use the board games we talked about in class as a way to get you started on your own idea. Otherwise, you can create your own, unique idea for a board game! Something you need to keep in mind is that board games are fun, interactive, structured and are **NOT TRIVIA GAMES**. **DO NOT** make your game based on Jeopardy or Trivial Pursuit! Use your creative minds to think of ways to relate STEM to your board game.

### **Requirements:**

1. You will work in teams of 3 to 4 students.
2. Each board game made must have the following items included in the project
  - Playing board: including game pieces and any necessary devices to complete your designed game
    - **Board must be an original**, not one taken from a previously owned board game
  - Game theme, questions, statements, layout, design must be related to STEM topics and concepts
  - Rules: The rules must be written out, understandable, and applicable to the game you created
  - Directions: how to play the game
  - Neat and organized
  - Creative, colorful and pretty! Who wants to play a game with no character!
  - Your board game must be playable—you will play each other's games at the end of the project!

### **Grading:**

Your games will be **graded** on the following criteria

- Related to STEM, using key terms, themes and concepts from the year
- Creativity, uniqueness of the game
- Neatness, and organization of the game
- Directions of the game **MUST** be either typed up or written **VERY** neatly
- Rules and directions of the game **MUST** be described very well, so people know what they can and cannot do!
- Use **CORRECT** grammar, spelling, and punctuation in all directions, rules, and on game board—your game needs to be understandable!
- Playability—if you make it, you are going to want to play it!

What you need to remember as you are thinking about this is to have fun with it and how can you incorporate the information about STEM into your game while making the game fun and educational.

## Grading Rubric:

Below is a guideline on how you will be graded for your game board. You should be able to go through this and know **EXACTLY** what is expected of you to earn the grade you want.

CATEGORY	Excellent	Good	Average	Poor
<b>Application of knowledge</b>	<b>10 points max</b> All information made for the game is correct, relates to STEM, applied in an excellent playable way and demonstrates vast grasp of subject.	<b>9 points max</b> All information made for the game is correct, relates to STEM, applied in a good way and demonstrates students grasp of the subject.	<b>7 points max</b> Most information made for the game is correct, relates to STEM, applied in a playable way and demonstrates basic understanding of knowledge.	<b>6 points max</b> Some information made for the game is correct, somewhat relates to STEM, applied in an unplayable way and demonstrates little grasp of subject matter.
<b>Attractiveness</b>	<b>10 points max</b> The game board, all game pieces, and any other game related object is colorful, unique, neat, and has wonderful visual appeal.	<b>9 points max</b> The game board, all game pieces, and any other game related object is colorful, neat, and has visual appeal.	<b>7 points max</b> The game board, and most of the game related pieces are colorful, neat and a mediocre appeal.	<b>6 points max</b> The game board and the game pieces are somewhat colorful, scattered design, and little to no appeal.
<b>Creativity</b>	<b>10 points max</b> A lot of thought and great strides into making the game interesting and fun to play as shown by creative design, game pieces and/or game objective.	<b>9 points max</b> Some thought and some effort into making the game interesting and fun to play as shown by creative design, game pieces and/or game objective.	<b>7 points max</b> Tried to make the game interesting and fun, but some of the things made it harder to understand/enjoy the game.	<b>6 points max</b> Little thought was put into making the game interesting or fun.
<b>Knowledge Gained</b>	<b>10 points max</b> Can easily and correctly state several facts about the topic used for the game without looking at the game.	<b>9 points max</b> Can easily and correctly state 5-10 facts about the topic used for the game without looking at the game.	<b>7 points max</b> Can easily and correctly state 3-5 facts about the topic used for the game without looking at the game.	<b>6 points max</b> Can NOT correctly state facts about the topic used for the game without looking at the game.
<b>Grammar, Punctuation, and Spelling</b>	<b>10 points max</b> No errors on board, rules, directions, cards, or any other part of game.	<b>9 points max</b> 1-3 errors on board, rules, directions, cards, OR any other part of game.	<b>7 points max</b> 4-8 errors on board, rules, directions, cards, OR any other part of game.	<b>6 points max</b> There were many mistakes grammatically throughout the game and all related material.
<b>Rules</b>	<b>10 points max</b> Rules and directions were typed up and were understandable that all could easily participate.	<b>9 points max</b> Rules and directions were typed up and were mostly understandable so that all could easily participate with little confusion.	<b>7 points max</b> Rules and directions were written up and were somewhat understandable so that players could participate with some confusion.	<b>6 points max</b> The rules and directions were poorly written or not written at all.