**Introduction**

Many board games use an electronic toy to signal moves or provide clues. You will create a board game and a marketing / informational website for the game. While your game should be something you create, here are some examples to help with brainstorming:

**Examples of Electronic Board Games:**

* Code Name: Sector (1977)
* Electronic Battleship (1977)
* Stop Thief (1979)
* Dark Tower (1981)
* Monopoly Playmaster (1982)
* Various Electronic Uno Games
* Electronic Mall Madness (1990)
* Electronic Dream Phone (1991)
* Lego Treasure Quest (1998)
* Clue FX (2003)
* Woowasit? (2007)
* Monopoly Zapped Edition (2012)

**Requirements**

1. Design the game idea and develop a set of written rules and instructions for how to play.
   1. The rules of the game should utilize some conditional statements.
2. Create a game board and the necessary game pieces.
3. Write a program for the micro:bit. The micro:bit needs to work in conjunction with the game board or pieces and should be a central feature of the game. It needs to be more than a simple substitute for a die.
   1. Ideas (although there are many other options you could do) :
      1. Utilize random numbers to simulate the results of battle between two pieces.
      2. Randomly point in a direction of travel.
      3. Generate a result based on its current incline.
      4. Point randomly at players to impact turns or lives.
      5. Display a dynamic score
4. Two classmates needs to play (test) the game and complete a peer review of the game.
5. Complete a reflection that answers regarding the development process, the feedback you received from the test, and how you modified your game based on that feedback.
6. Create a website that provides information and markets the game. It should have the following:
   1. A “front” page with:
      1. pictures of the game, pieces, and micro:bit
      2. a positive quote from a reviewer
      3. the name of the game and a general marketing description
      4. a price for the game and a “fake” button for purchasing the game that acts like a link but does not go anywhere
   2. A “how to play” page with:
      1. The rules and instructions for how to play.
   3. A “more information” page with:
      1. your reflection
      2. Screenshots of your micro:bit code.

**Peer Review Form**

**These forms need to be returned to the game designer who will submit them to Mrs. Hines at the end of the project.**

Peer Reviewer Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Board Game: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Game Designer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How easy was it to figure out what to do? Comment on the clarity of the rules and instructions.

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1. What is something about the game that works really well?

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1. What is an idea that would make this game even better?

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1. Additional comments and suggestions.

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**Reflection Prompt**

You will answer these questions as part of the “more information” part of your website.

1. How did you decide on your particular board game idea? What were your inspirations?
2. What was something that was surprising to you about the process of creating the game?
3. Describe a difficult point in the design process (understanding the task/problem, planning, implementing, testing, revising, publishing) and explain how you overcame or resolved it.
4. Explain how your micro:bit is a critical part of your board game and how the program code for the micro:bit works.
5. What feedback did your beta testers give you? How did that help you improve your game?
6. What conditional statements did you use as part of your game rules?
7. Describe the design process for your website. How did you decide on the layout and color scheme of your website?
8. What was the most difficult part of creating the website?
9. What part of this project are you the most proud of? Why?

**Rubric**

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| --- | --- | --- | --- | --- |
|  | 4 | 3 | 2 | 1 |
| Rules | All game rules are clear, complete, and listed on the website. | A game rule is missing, not complete, or not clear. | More than one game rule is missing, not complete, or not clear. | Most of the game rules are missing or it is not clear what the rules are. |
| Game Board | Game board is complete, neat, fits with the theme of the game, and includes the micro:bit as a central part of the game. | Game board meets only 3 of the conditions listed. | Game board meets only 2 of the conditions listed. | Game board meets only 1 of the conditions listed. |
| Micro:bit Program | Uses the micro:bit in a way that is integral to the game.  Uses conditionals, event handlers, and variables correctly.  Runs as intended. | Program lacks 1 of the required elements. | Program lacks 2 of the required elements. | Program lacks 3 of the required elements. |
| Photos | Website includes photo documentation of game board, code, game pieces, and micro:bit in its place on the board. | A photo is missing or is of poor quality. | Multiple photos are missing or are of poor quality. | Most photos are missing or are of poor quality. |
| Website | Includes three pages as described, cohesive layout and color scheme, and uses html and css appropriately to achieve a professional appearance.  All pages should link to one another.  File organization on GitHub follows class standard (CSS and images in their own folders). | Website lacks at least one required element. | Website lacks at least two required elements. | Website lacks at least 3 required elements. |
| Peer Reviews and Reflection | Complete 2 peer reviews and thoroughly respond to questions.  Submit the two completed peer reviews to Mrs. Hines at the end of the project.  Include your complete reflection, with all questions thoroughly answered, on the “more information” page of your website. | Lacks at least one required element. | Lacks at least two required elements. | Lacks at least 3 required elements. |