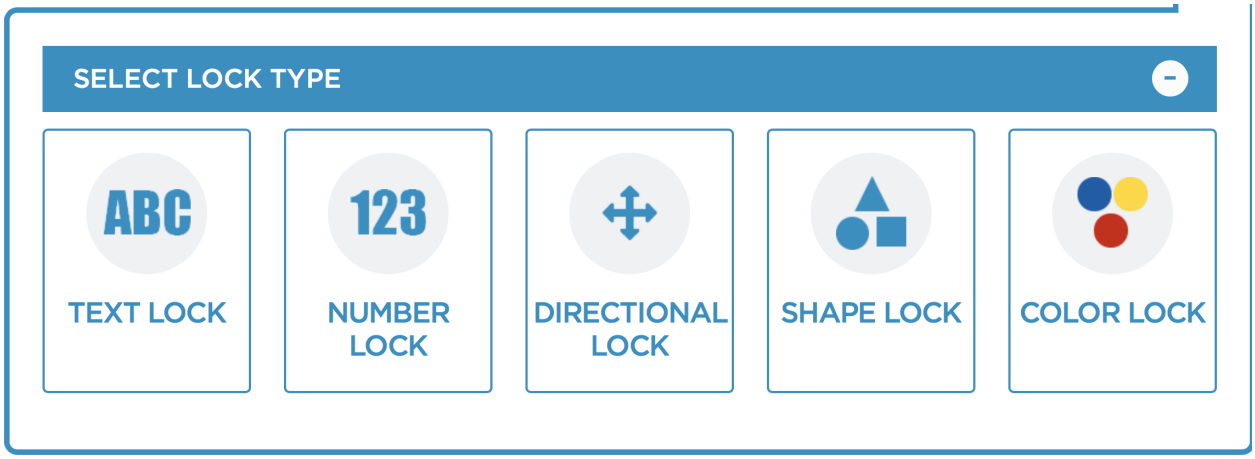
Honors Physics

Newton's Laws of Motion
Physics Breakout/Escape Room

Introduction
For part of your assessment , you will create a physics-based breakout/escape room.

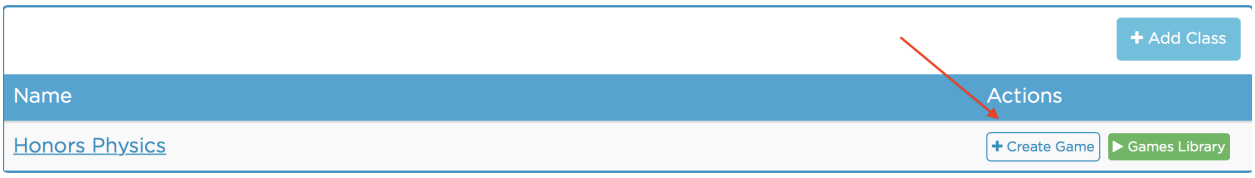
Directions
1. Your breakout game should tell a fun and engaging story. This is your opportunity to be creative! Push the envelope.
2. Write a fun title for your game and a solid description for your game.
3. Your game must have five locks. You may not have more than two of the same lock.
4. Sequential or nonsequential? It's up to you!
5. A player may open a lock by solving a problem or by answering a conceptual question.
6. You should have three problems/two concepts or two problems/three concepts.



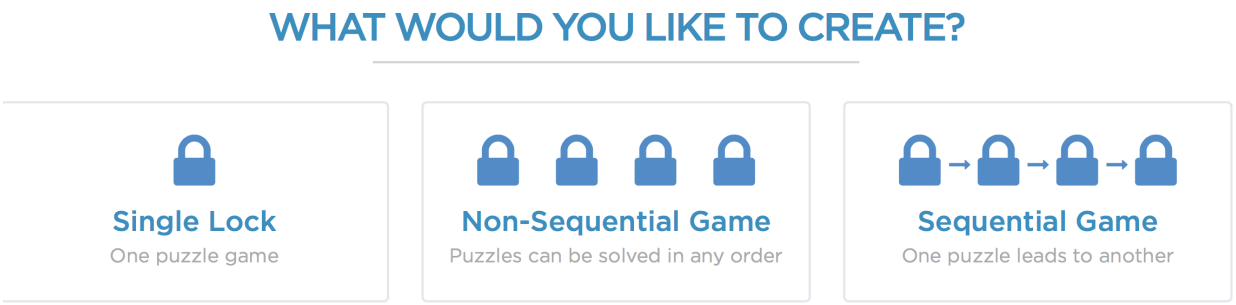
6. Your locks must cover Newton's Laws of Motion (that includes Newton I, II, III; free body diagrams; friction).
7. One lock must cover a previously learned topic: motion in one dimension or motion in two dimensions.
7. Don't just write five boring, unrelated problems. The old "Will goes five places and has to solve five different riddles to accomplish something" concept usually works well.

Setting Up Your Game

1. Log in to your Student Breakout Edu account (student.breakoutedu.com)
2. Under My Classes, select Create Game.



3. You may opt for a sequential game or a non-sequential game.



4. Enter a **Title of Game** and **Description of Game**.
5. Select an appropriate **End of Game Reveal.**
6. Set the Timer for **10:00 minutes**.

Writing Your Problems and Setting a Code

1. Your challenge is the following: how do I write a problem to illustrate a physics concept but also create an appropriate code to open a lock.
2. Because some of the locks require shapes, letters and directions, you need to think about how to represent numerical and conceptual answers differently.
3. You can build hints and clues into your questions and solutions to help players convert numerical and conceptual answers to shapes and symbols.
4. You may not have players "spell out a word" as an answer.
5. Do not make your questions so difficult that they are impossible to solve.
6. You may not just copy problems from online or from your textbook.

Additional Notes

1. Develop your story; decide on game type, title, description, end of game reveal.
2. Select your locks and write your problems. Create a Google Doc, include your problems and solutions. Share your Google Doc with me and I will review your problems/solutions if you wish
3. Enter your problems/questions into your game and set your locks.

4. Test your game; have a friend or family member play your game.
December 10: Final game due date.