

**The Task:** With at most three partners, design an ORIGINAL game of chance that can be played rather quickly. You may use any combination of chance devices, such as dice, cards, coins, spinners, or other devices for which can evaluate the probability of each outcome. The player plays to either win or lose. The probability of a player winning MUST BE LESS THAN 50%.

### **Part I: Game Design**

You must submit:

- 1) A written description of your original game and the game play. This must be sufficient explanation so that anyone can follow your description and correctly execute your game play. The game should be interesting and engaging. Be creative!
- 2) The detailed calculations for the probability of a Player winning your game. Include a tree diagram or other diagram as appropriate. The probability of a Player winning MUST be less than .5, or less than 50%. (The closer to 50%, the more likely people will want to try to beat your game.)

This can be submitted online or hand-written.

### **Part II: Game Play**

You must set up a table for the class to play your game, make it appealing! Name it! You want people to play your game! 😊

You must play every other game at least once. Play your own game once also. One class period will be dedicated to Game play, with a second class period if needed.

### **Part III: Class Competition**

This is a FRIENDLY COMPETITION! Any untoward behavior will disqualify you from the competition.

Team Award: The game that earns the most wins against players (most Player losses) wins!

Team Award: The individual who wins the most total games, wins!

Project 4 Rubric:

Description of Project Presented	Grade
<p>All the requirements of the project are met beyond the minimum. Final result shows clear evidence of additional effort to expand on the project in keeping with the project objective. Final result shows evidence of thoughtfulness and clear attempt to produce an academically sound project. Evidence of extra care for precision, accuracy and clarity are also apparent.</p>	A
<p>All the minimum requirements of the project are met, with additional effort to expand on the project in keeping with the project objective. Final result shows evidence of thoughtfulness and clear attempt to produce an academically sound project. Evidence of extra care for precision, accuracy or clarity is also apparent.</p>	B
<p>At least the minimum requirements of the project are met. Final result shows evidence of thoughtfulness and clear attempt to produce an academically sound project.</p>	C
<p>Not all requirements met to at least the minimum level, and/or final result shows evidence of careless work, or lack of thoughtfulness, or lack of academic sincerity.</p>	D
<p>Project not submitted, or submitted with a majority of the requirements lacking.</p>	E