Carnival Tycoon Deep Dive Project Rubric   Names:_____

Delta College STEM Explorer   _____

                                                         _____

                                                         _____

CATEGORY	4	3	2	1
Mathematical Reasoning	Uses complex and refined mathematical reasoning.	Uses effective mathematical reasoning	Some evidence of mathematical reasoning.	Little evidence of mathematical reasoning.
Mathematical Concepts	Explanation shows complete understanding of the mathematical concepts used to solve the problem(s).	Explanation shows substantial understanding of the mathematical concepts used to solve the problem(s).	Explanation shows some understanding of the mathematical concepts needed to solve the problem(s).	Explanation shows very limited understanding of the underlying concepts needed to solve the problem(s) OR is not written.
Strategy/Procedures	Uses an efficient and effective strategy to solve the problem(s).	Uses an effective strategy to solve the problem(s).	Sometimes uses an effective strategy to solve problems, but does not do it consistently.	Rarely uses an effective strategy to solve problems.
Explanation	Explanation is detailed and clear. Group gives a thoroughly convincing argument concerning the carnival game.	Explanation is clear. Group explains why the game should be adopted by the carnival.	Explanation is a little difficult to understand, but includes critical components. Argument for implementation may not be convincing.	Explanation is difficult to understand and is missing several components OR was not included. Not able to produce a convincing argument.
Teamwork	Student was an engaged partner, listening to suggestions of others and working cooperatively throughout lesson.	Student was an engaged partner but had trouble listening to others and/or working cooperatively.	Student cooperated with others, but needed prompting to stay on-task.	Student did not work effectively with others.
Mathematical Terminology and Notation	Correct terminology and notation are always used, making it easy to understand what was done.	Correct terminology and notation are usually used, making it fairly easy to understand what was done.	Correct terminology and notation are used, but it is sometimes not easy to understand what was done.	There is little use, or a lot of inappropriate use, of terminology and notation.

Neatness and Organization of the Visual Presentation	The project is presented in a neat, clear, concise, and organized fashion that is visually appealing and easy to understand.	The project is presented in a neat and organized fashion that is easy to understand.	The work is presented in an organized fashion but may be hard to understand at times.	The work appears sloppy, unorganized, or incomplete. It is hard to know what information goes together.
Carnival Game	The game is well designed and shows an exemplary amount of creativity. Team shows that the game has been modified (if needed) to meet the standards.	Game is creative and fun to play. Team shows how the game was modified (if needed) to meet the project standards.	Game is completely built, but may have not been modified to meet the standards.	Game is only partially built or may lack the evidence of research in design. Game shows little creativity and may not be a fun game to play.
Data Collection and Analysis	Team clearly presents data collected during the project. The team understands the meaning of data and has clearly used it to make modifications and form opinions.	Team shows the data collected during the project and can explain how the data was used to guide the project.	Data is presented, but may be incomplete. There may be little evidence of how the data guided the process.	There is little to no data presented. If data are presented, the team may have a fundamental misunderstanding of its meaning.

Total Score: _____ / 36

_____%

Grade: _____

Comments: