

Students' Names _____

Teacher's Name _____ Period _____ Date _____

Math Game Project

You will be designing a math game. You will be allowed to work individually or with a partner. Basically, you have two options: either you look online and search for math games to present on a game that already exists, or you can create your own math game. All of the steps describing the rules of your game need to be written up along with a description of how the game relates to math. Then you will need to prepare everything that is necessary to play it such as game board, cards, etc. Below is a list of ideas for games you can create. The second page of this packet has the rubric that your teacher will use to grade your project.

Board Game

A math board **game** provides a great way to incorporate math, board design and game rules. Board games incorporate an endless variety of themes and subjects. Let's say a student likes punk music and wants to create a math board game around it. She could create a band and design the board with different venues, tour stops, etc. The game could center on how much money a band makes at a certain venue and what a band has to spend on food, hotels, travel, etc.

Card Game

A card game project can mimic any common card game or have an original theme relating to math. A challenging and fun card game can match equations to answers. If a student creates a card game about algebra, for example, 20 cards could have equations and 20 cards could have answers. When a student flips a card over and sees " $2x + 3 = 7$," he has to mentally solve for X and flip cards to find the answer. Students can play this game alone, in pairs or in teams.

Math Jeopardy

The whole class could play Math Jeopardy. It can mimic or loosely follow the TV game show, in which case students can add more categories and questions to just have one round of questions. Some categories could include "Equations," "Math History," " $X =$," "Calculate This," "Mental Mayhem" and "Which Do I Solve First?" Students can designate points for every question; the team with the most points at the end of the game wins if they correctly figure out how many more points they have than the opposing team.

Math Wheel

Math wheel loosely follows the game show "Wheel of Fortune." For this project, a student can create a wheel with a finger spinner. Spaces with various points on the wheel as well as a "Skip a Turn" and "Deduct All Points" keep the game interesting. A player has to fill in the blanks by figuring out the equation and its answer. For example, if the category is "Multiplication," and the board displays " $_ \times _ = _ _$ " a student chooses a number between 1 through 9. If a player requests a 6, the puzzle would look like " $_ \times _ = _ 6$ " Eventually, the answer becomes $8 \times 7 = 56$. The player with the most points at the end of the game wins.

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Rubric

	Poor (10 points)	Fair (15 points)	Good (20 points)
Mathematical Concepts	<p>Poor</p> <p>The math concepts are not of high-level thinking and there are errors in the game.</p>	<p>Fair</p> <p>The math concepts are of high-level thinking and there are few errors in the game.</p>	<p>Good</p> <p>The math concepts are of high-level thinking and there are no errors in the game.</p>
Written Directions	<p>Poor</p> <p>Somewhat clear, but have many errors that cause the players questions or have to speculate on what to do in the game.</p>	<p>Fair</p> <p>Clear rules on how to play the game but has some errors.</p>	<p>Good</p> <p>The rules are well written and clear. There are no questions on how to proceed with the game.</p>
Quality and Neatness	<p>Poor</p> <p>The game lacked the quality and neatness. It needs more time and effort in order to make it appear of high quality.</p>	<p>Fair</p> <p>Creative and well done. The game might have been ready for publishing if it just had a little bit more quality in the overall appearance.</p>	<p>Good</p> <p>Take this to the publisher! The time you put in was definitely a benefit to the neatness and quality of your game!</p>
Employability	<p>Poor</p> <p>The game lacked the spark to maintain interest but had effort at engagement.</p>	<p>Fair</p> <p>The game engaged the players for a while but could have had more challenge to it.</p>	<p>Good</p> <p>The game was engaging and full of challenge. The players did not have time to lose interest.</p>
Cooperation	<p>Poor</p> <p>Contributed little to group project, and did not work well with members of the group.</p>	<p>Fair</p> <p>Contributed to the group to a lesser extent than other members, and/or did not work well with other group members.</p>	<p>Good</p> <p>Contributed several ideas and worked well with other group members. Completed an equal share of the project work.</p>