

Carnival Mission

Exploring the Cost of Carnival Games

GAMERS

QUEST 1 ALGEBRA I

STATE FAIR OF TEXAS CURRICULUM

The State Fair of Texas Midway has a carnival type atmosphere! In the past, carnivals would travel the country bringing rides, food, games and even freak shows to towns across the country. During this Quest, you will be exploring the carnival games.



During this Gamer Quest, you will:

- ★ Explore the cost of playing Midway carnival games.
- ★ Record the cost of the games.
- ★ Compare the cost of the games using a graph.
- ★ Create visual diagrams to reflect research at the State Fair.



Learning Standards

- ★ Math (Algebra I) TEKS: A2A, A2D, A2H, A3A, A3C
- ★ Art TEKS: Art I: 1B, 4A; Art II: 1B
- ★ ELAR TEKS: EL(1L)(B)
- ★ Career Development TEKS: EC2C



Before You Go – 15 min prep time, 30 teaching time
You will be going the State Fair of Texas to explore the cost of carnival games.

Before you go, you must:

- ★ Understand linear equations.
- ★ Understand direct variation.
- ★ Be able to make a table from data collected.
- ★ Be able to determine the slope of a line.
- ★ Be able to graph a line from a table.



Invitation

- ★ Invite students to attend the State Fair to explore the cost of the Midway carnival games.



Plan Your Route

- ★ You will begin your Quest in the Midway. As you walk through the Midway, pay close attention to the carnival games.

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STATE FAIR MAP



Optional Materials to Bring

- ★ Pen or Pencil
- ★ Notebook or Paper
- ★ Smartphone or Tablet



While You're There

The objective of your visit is to choose THREE games that you would like to play.

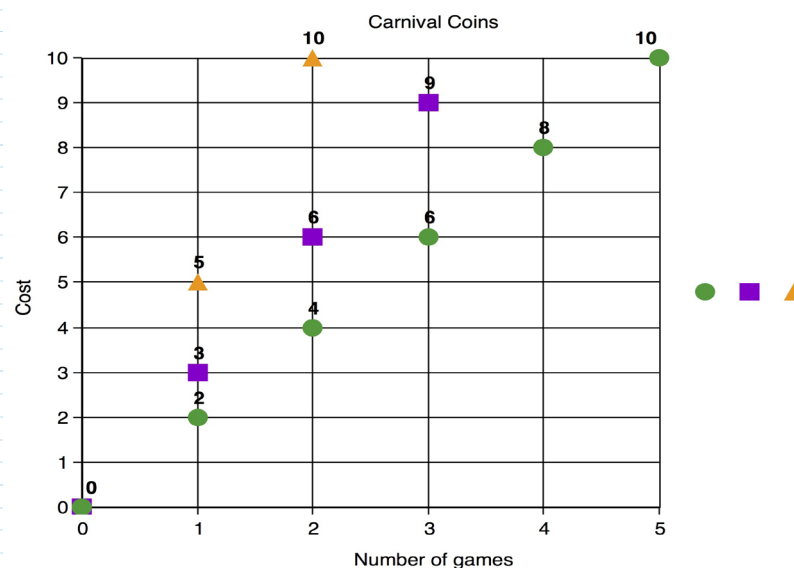
- ★ **CARNIVAL MISSION:** you will explore the cost of playing games on the Midway.
 - o Choose three games you would like to play.
 - Each game should cost a different amount of credit to play.
 - o Record the name of the game and how much credit it takes to play.
 - o Determine how much money one credit costs in dollars.
- ★ **ART COMPONENT:** notice colors, textures, and artistic components used in the games you play. These will be important as you work on the art component of this Quest.



After the Fair - 50 min project

When you return to class following your State Fair visit, you will:

- ★ Identify the domain and range.
- ★ Determine how much each game costs to play in dollars.
- ★ Create 3 tables from the data you collected at the State Fair of Texas.
 - o These tables should show how much you would spend on each game depending on the number of times you played the game.
 - o They should start with 0, because you may have decided not to play that game.
- ★ Identify the slope of each table.
- ★ What does the slope represent?
- ★ Write an equation for each of the tables.
- ★ Graph the data from each table. Graph all 3 on one graph.
 - o Example graph:



- ★ Are these graphs examples of direct variation? How do you know?
- ★ Comparing your graphs to those of your classmates, which games cost the most to play? The least?

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ART COMPONENT

Learning how to create presentations that are visually exciting is an important skill to have, whether it is for high school, college, or work. There are many instances where presentations are the first impressions that you give to groups of people. How can you ensure that you set yourself apart from others? How can you utilize your creativity to create an aesthetically pleasing and exciting presentation that leaves your audience wanting more?

- ★ Utilize variations of color, shape, texture, etc. to create visually pleasing information from each of your graphs.
 - As you present, talk about these choices and how you feel they add to the aesthetic qualities of your work.
- ★ In addition to your graphs, create a drawing or painting to accompany each of the three graphs.
 - Try to take the information in each graph and communicate it using only visual representations. For example, for the game in which the most money was spent, you might draw the image of the game, but have it bulging with money flying out of it. The second game might have less money coming out of it, and the third game with the least amount of money.
- ★ Get creative and have fun with it!



ENGLISH COMPONENT

Of the three games that you played, which game is your favorite? Why do you enjoy the game so much? Could you persuade others to like the game as much as you do? Could you persuade your classmates to spend their money playing your favorite game? Work through the following steps to convince your classmates that they should play your game:

- ★ Brainstorm all of the reasons why your game is the best game to play.
- ★ Think about some of the cons of your favorite game (price, difficulty level, etc.) and how these negatives can be turned into positives.
- ★ Develop a tagline (thesis) that you will use in your pitch and support with evidence (reasons why classmates should play your game).
- ★ Conclude your pitch by summarizing your main points and leaving the audience with something to think about.
- ★ Have a classmate edit your pitch for grammatical/spelling errors and to double check that your reasoning is logical and makes sense.
- ★ Present your pitch to the class and see how many classmates you can convince to play your game!

