

Hungry, Hungry, Hungry Teenagers!

Systems of Inequalities

FOODIES

QUEST 02 ALGEBRA II

STATE FAIR OF TEXAS CURRICULUM

The State Fair of Texas has become very popular for the food. Fairgoers flock to the Fair in order to get a taste of all the fried stuff! However, there are also the famous Fletcher's Corny Dogs, all types of food on a stick, cooking competitions, and celebrity chef demonstrations. Since all this food costs money, let's explore getting the best/most food for your cash.



During this Foodie Quest, you will:

- ★ Create a system of inequalities from the cost of food at the Fair.
- ★ Determine the combinations and expense of Fair food from the graph of the system.
- ★ Design an "Exquisite Corpse" drawing with a team, based on the foods you discovered.
- ★ Compose a descriptive poem for a person who has limited senses.



Learning Standards

- ★ Math Algebra 2 TEKS: A2.3.F; A2.3.E; A2.3.GP
- ★ Art TEKS: Art I: 1A, 2E, 3C; Art II: 1A, 2E
- ★ ELAR TEKS: E3(14)(B)
- ★ Career Development TEKS: PS.1.H; PS.2.B



Before You Go – 30 min prep time, 60 min teaching time

- ★ Review graphing a linear function
- ★ Review graphing 1 linear inequality
- ★ Practice graphing 2 and 3 linear inequalities and shading the points that are solutions
- ★ Write linear inequalities from word problems (lot of practice here)



Invitation

- ★ Invite students to head to the Texas State Fair to enjoy themselves while gathering data, so they can create their own system of inequalities

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STATE FAIR MAP



Plan Your Route

- ★ Head to the Midway
- ★ Then find the Tower Building Food Court
- ★ Finally go to the Skyway Porch



Optional Materials to Bring

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



While You're There

The objective of your visit is to sample all your favorite foods. Record the cost of each food you try and even those you might like if you get full quickly.

★ HUNGRY, HUNGRY, HUNGRY TEENAGERS!:

- Investigate all the types of food offered at the Fair.
- Sample as many of the food options as possible.
 - Record the cost (in dollars not tickets) of each food you try or wish to try
 - Make sure you record at least 2 dessert foods and 2 main dish items
 - Use the table below:

Type of Food	Cost (in \$)

★ **EXQUISITE CORPOSE (ART PORTION):** As you see and sample various foods at the Fair, make some sketches of your favorites. Hold on to them, because you will need them for your art project!

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After the Fair – 30 min project

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

- ★ Pick 2 main dish foods and assign a variable to each food
- ★ Write an inequality of those 2 foods that represents you having no more than \$15 to spend on those 2 foods
- ★ Pick 2 dessert foods and assign a variable to each one
- ★ Write an inequality of those 2 desserts that represents you spending less than \$12 on both desserts
- ★ Graph both inequalities on the same graph and shade the solution area
- ★ Explain why there is more than 1 solution to this system



ART PORTION

Before You Go

There are so many food options at the Fair, how do you choose?? Is it based on appearance? Smell? Do you just pick a kind of food you've already had before?

What would happen if you put your three favorite foods together? Would your taste buds just explode? Besides the taste, how would you go about making it look appetizing?

Before beginning your quest of yumminess at the Fair, take a look at the site below on how to create an Exquisite Corpse. Keep this in mind as you wander through and sample the delectable treats at the State Fair. https://www.youtube.com/watch?v=py_xXvJoYcQ

When You Return

Now, it's time to create a State Fair food Exquisite Corpse! You can do this alone, or with two other classmates that also visited the Fair and did some food sketches. Follow the directions from the video, or if you have forgotten, here they are:

1. Fold a piece of drawing paper into thirds.
2. Create the "head" on the first third
3. Fold it so that the second artist can't see the top and have them draw the "body"
4. Repeat for the third artist, and they will draw the "legs"

Remember, you are drawing portions of your favorite Fair food, but you can give them any sort of qualities that you want to enhance their appearance. When you're done, unfold it for the ultimate Fair food!

This can be a simple drawing, or you can create a very elaborate piece utilizing color!



Source: <http://blog.pshares.org/files/2015/06/Exquisite-Corpse.jpg>



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En ENGLISH PORTION

We use the five senses on a daily basis without stopping and thinking about what it would be like to function in the world without them. What if one of your classmates was not able to smell, see, or taste? How would you describe the foods that you selected while you were walking around the Fair?

- ★Brainstorm in class how you would describe foods to a peer who couldn't use smell, sight, or taste to explore them.
- ★Write a descriptive poem for each of the Fair foods you selected, using the alternative ways you found to express.
- ★Each poem should be four stanzas with four lines.
- ★Remember: you are writing as if the only way this person could experience the Fair food you are describing...is THROUGH YOUR POEM. Be as descriptive as possible!

