The history of the State Fair of Texas dates all the way back to 1886, and while the food court at the Fair is pretty old, it’s not quite that old. Still, it may be time for it to get a facelift. We think YOU might be the perfect artist for the job!

**FOODIES QUEST 03**

**GEOMETRY**

**Tower Transformation**

YOU get a new food court! And YOU get a new food court! And YOU get a new food court...

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**During this Foodie Quest, you will:**
- Analyze the layout of the food court in the Tower Building.
- Design a new layout for the food court.
- Present your new layout.

**Learning Standards**
- Math (Geometry) TEKS: G1B, G3B G5A, G5B, G5C
- Art TEKS: Art 1: 1C, 2A, 4A; Art II: 2C
- Career Development TEKS: EC3E, EC8A

**Before You Go – 15 min prep time, 30 min teaching time**

Since students will attend the Fair with the ultimate goal of redesigning the food court in the Tower Building, they must know the following terms and how to use them:
- Parallel and perpendicular lines
- Transformations
- Bisector

**Invitation**

- Invite students to attend the State Fair of Texas, making sure specifically to visit the Tower Building near the center of the Fair by Big Tex, and follow the instructions below.
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GEOMETRY
Tower Transformation
YOU get a new food court! And YOU get a new food court! And YOU get a new food court…

**TOWER TRANSFORMATION:** Walk through the food court and observe the area.
- Notice traffic flow and seating. Do you see any problem areas?
- Pay attention to details such as colors, textures, shapes, and any themes that you might notice.
- What sorts of things grab your attention the most? Why?
- Sketch the current floor plan on graph paper or in your sketchbook.
- Write down any ideas you have about the new design.
- How old do you think the Tower Building is? Do you think the food court was part of the original design? Do you think they are using the original ceiling? See if you can find out the answers to these questions.
- Are there any other questions like these that you can ask yourself?

**Plan Your Route**
★ Find the Tower Building (it’s the one with the big golden eagle on top, near Big Tex), and go inside.

**Optional Materials to Bring**
★ Pen or Pencil
★ Sketchbook
★ Graph paper
★ Tape measure
★ Notebook or Paper
★ Smartphone or Tablet

**While You’re There**
The objective of your visit is to observe and sketch the food court in the Tower Building.

**After the Fair – 1 hour 15 min project**
When you return to class following your State Fair visit, you will design a new floor plan for the food court on graph paper.
★ Be sure to use parallel and perpendicular lines.
★ Did you use bisectors? Explain.
★ What transformations did you use?
★ On a separate sheet of paper, draw out some of the specific things that would be included in your food court, such as:
  - Types of seating
  - The theme of your food court
  - Types of food that you will include
  - Color scheme
★ What could you add to your food court to truly make it unique?
★ When you are finished, display both your floor plan as well as your drawings for the details of your food court. Present them to your peers and discuss your influences and reasoning behind your design choices.
Once you have redesigned the food court, it is time to pitch the redesign to Fair officials. In a group of four, you will create a multimedia PowerPoint presentation to persuade Fair officials to choose your food court redesign ("Food" for thought: what is multimedia?).

★ Incorporate at least 8 slides, including:
  - Introduction and conclusion slides
  - Drawing of your redesigned food court
  - Justification for: Types of seating, Theme, Food choices, Color scheme
  - Explanation of the current food court issues you found and how your redesign will address these issues