LIVESTOCK & AGRICULTURE
GRADE 8 SOCIAL STUDIES

WHAT'S IT GONNA COST ME...TOMORROW?!
The real facts behind what we eat.
What’s It Gonna Cost Me...Tomorrow?! 
The Real Facts Behind What We Eat

In this lesson students will:
★ Discover the resources needed in order for the Livestock and Agriculture industries to thrive.
★ Research the amount of resources necessary to sustain these industries. What happens when there is a decrease in resources?
★ Create a presentation explaining the factors that can cause food prices to change.
★ Discover the artist George Rodrigue, and create their own unique “mascot” using some of Rodrigue’s techniques.

Did you know that the price of food in the supermarket changes, sometimes from day to day? Corn can cost $1.00 a pound this week, and go up to $2.00 a pound next week! A pound of ground beef can cost $2.99 to $5.99, or even more.

Agriculture and Livestock in Texas are vital for our economy and well-being, but there are many factors that affect cost and production. A major drought, like the one California is currently experiencing, could cause your favorite $2.00 burger to increase to five bucks!

Let’s explore why...

Standards
★ Social Studies TEKS: 8.14(B), 8.29(A), 8.29(C)
★ ELAR TEKS: 8.9(C), 8.11(A)
★ Art TEKS: 8.1(A), 8.2(A), 8.3(B)
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Before You Go
★ Have you thought about what that burger REALLY costs? Individually or with a partner, analyze the following infographics:

What does it take to make a ¼ lb. burger?

- **feed**
  - 6.7 Pounds of grain and forage

- **water**
  - 52.8 Gallons for drinking and irrigating feed crops

- **land**
  - 74.5 Square feet for grazing and growing feed crops

- **energy**
  - 1,036 BTUs for feed production and transport — enough to power 7 iPads

- **GHG**
  - 13.4 Pounds of CO2 equivalent released

Infographic provided by Business Insider
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OUR FOOD AND AGRICULTURE IN NUMBERS

Infographic provided by Growing Voices
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The Facts Behind Food Prices

1. WEATHER
   Weather conditions can affect crop yields and animal health, which in turn can impact food prices.

2. GLOBAL DEMAND
   An increase in global demand for commodities can drive up prices due to higher demand for these products.

3. WEATHER
   Extreme weather conditions, such as drought or floods, can reduce crop yields and increase food prices.

4. GOVERNMENT POLICY
   Government policies, such as subsidies or tariffs, can influence the supply and demand for goods, affecting prices.

5. DISEASE
   The spread of diseases among crops or animals can lead to reduced production, which can increase prices.

6. FOOD SAFETY CONCERNS
   Concerns about food safety can lead to decreased consumer demand, which can lower prices.

7. DECLINING GRAIN RESERVES
   Low grain reserves can indicate a potential shortage in the future, leading to higher prices.

8. REDUCED CATTLE WEIGHS
   Lower cattle weights can indicate reduced feed intake, which can lead to higher prices as there is less supply.

9. INFRASTRUCTURE
   Poor infrastructure can lead to higher transportation costs, which can increase the final price of goods.

10. GLOBAL TRADE RESTRICTIONS
    Trade restrictions, such as tariffs or quotas, can limit the supply of goods, leading to higher prices.

The Facts Behind Beef Prices

1. GLOBAL DEMAND
   Increased demand for beef, due to population growth or dietary changes, can drive up prices.

2. WEATHER
   Weather conditions can impact feed availability and animal health, affecting beef prices.

3. WEATHER
   Extreme weather, such as drought, can reduce grass growth and decrease the availability of natural feed for cattle, increasing prices.

4. GOVERNMENT POLICY
   Government policies, such as subsidies for beef production, can influence the supply and demand, affecting prices.

5. DISEASE
   The presence of diseases among cattle can reduce their productivity, leading to higher prices due to reduced supply.

6. FOOD SAFETY CONCERNS
   Concerns about food safety related to beef can decrease consumer demand, reducing prices.

7. DECLINING GRAIN RESERVES
   Low grain reserves can indicate a potential shortage in the future, leading to higher prices in the market.

8. REDUCED CATTLE WEIGHS
   Lower cattle weights can indicate reduced feed intake, which can lead to higher prices as the supply decreases.

9. INFRASTRUCTURE
    Poor infrastructure for beef transportation can increase costs, leading to higher final prices.

10. GLOBAL TRADE RESTRICTIONS
     Trade restrictions can limit the supply of beef, increasing prices due to reduced availability.

Infographic provided by Attain Capitol
Project Goal

- Farmer vs. Rancher! Inform the students that based on their research at the State Fair, they will decide whether they would rather work on a farm or work with livestock. They will then be given a writing prompt after the Fair, which they’ll discuss in class after they’ve made their decision.

Optional Materials to Bring

- Smart Phone, Tablet
- Pencil & Notepad
- Sketchbook for Arts Connection

While You’re There

The goal of your visit is to discover the resources needed for the Livestock and Agriculture industries to thrive. (Remember to check the Arts Connection for additional items.)

Plan Your Route.

- From the Texas Star, follow MLK Blvd. around behind the Cotton Bowl Stadium.
- Find Cattle Barn #2 and explore.
- Next, go see the Livestock Shows and Cattle Barn #1, next door.

Livestock Shows and Barnyards

- Make observations about what the cattle need. Ask the exhibitors:
  - How much do the cows need to eat?
  - How much water do they consume?
  - What happens when there’s a drought?
  - What environmental factors cause a decrease in cattle production?
  - What happens when there isn’t enough food for the cattle?
  - When there’s a drought, do cattle prices change?
Plan Your Route.
★ Your next stop will be the Food & Fiber Pavilion:
★ Go back down toward the Cotton Bowl and turn right on Nimitz Drive.
★ Continue walking until you see the Food & Fiber Pavilion on your right.

FOOD & FIBER PAVILION
- Make observations about the environment.
- Ask questions about cost, resources needed, and factors that limit resources.

After the Fair
When you return to class following your State Fair visit, you will be given the following writing prompt:
★ Imagine that there is a massive drought in Texas.
   Crops are dying and the Livestock and water reserves are dwindling. There is an emergency reserve of water ready, but not enough to water crops AND give water to the livestock.
★ Farmer vs. Rancher? Based on your research, decide what will be more important to save for the next year.
★ Your presentation can be spoken, visually presented, or handwritten.
★ As a class, discuss the importance of Agriculture and Livestock in Texas.
Arts Connection: A Trail-Blazing Blue Dog

The artist George Rodrigue created a sort of mascot with his famous “Blue Dog.” Through his Big Dog paintings, he discovered that he was able to raise money to help his own and other communities, like the victims of the terrorist attacks in New York City on September 11, 2001.

In this lesson, students will:
★ Discover the artist George Rodrigue and his process for creating his famous “Blue Dog”.
★ Research the various animals at the State Fair.
★ Create their own unique “mascot” using some of the techniques of Rodrigue.

Before You Go
★ Begin by showing the students images of Blue Dog at the artist site: https://georgerodrigue.com/
★ How is Blue Dog different from a dog that you would see everyday?
★ How does Blue Dog make you feel? Why?
★ What do you think that the artist had in mind when he created Blue Dog?
★ Talk to the students about the use of color, texture, and emphasis in the Blue Dog paintings.

Next, show the students the following video featuring the artist George Rodrigue and the story of how Blue Dog came to be: https://www.youtube.com/watch?v=qp_UhYOhuLA. As you will see in the video:
★ Blue Dog evolved as sort of a mascot for Louisiana.
★ He is based on an old Cajun fairytale and became what Rodrigue describes as, “a vehicle to comment on life today.”
★ Ask the students what they think the artist means by that as you look at more of the Blue Dog paintings.

Because the Blue Dog was attached to something that the people of Louisiana are familiar with, it was easy for them to relate to him. The backgrounds of the paintings help tell Blue Dog’s story. No matter his surroundings, however, Blue Dog remains at the forefront, and is the emphasis of each artwork.
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While You’re There
As you travel through the Livestock pavilions, pay attention to the different types of animals that you see. Ask yourself the following questions:
★ Is there one type of animal that is seen more than the others?
★ Do any of the animals stand out to you more than the others?
★ If you were to pick an animal that you think could be the mascot for the Fair, which one would it be? Why?

Be sure to create some sketches of the animal that you choose. Play around with the sketches, and think about color and texture as you draw.

After the Fair
Now it’s time to create your own State Fair mascot!
Think back to the Blue Dog paintings by Rodrigue that you looked at in class.
★ How was Blue Dog drawn in each of the works?
★ Was he bigger or smaller than the backgrounds?
★ How did the artist put the emphasis on Blue Dog in each painting?
★ Did he look different or the same in each piece of artwork?

As you work:
★ Keep color, texture, and emphasis in mind.
★ How can you make one of the everyday animals of the State Fair unique?
★ Play around with different backgrounds.
★ Think of the ways that people from Texas could relate to this animal the way that people from Louisiana relate to Blue Dog. Can you relate your artwork to the drought scenario from the main lesson?
★ The medium for this is up to you, but remember, color will play a key role in your design!