

The State Fair of
TEXAS
Curriculum

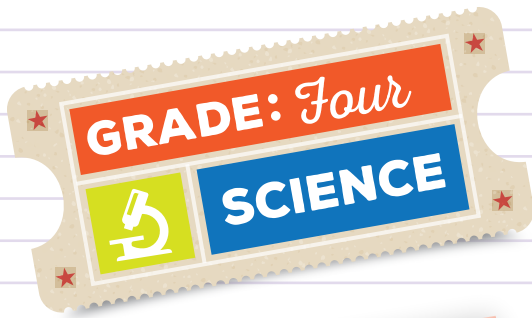
LIVESTOCK & AGRICULTURE
GRADE 4 SCIENCE

GO WITH THE FLOW:
PRODUCERS & CONSUMERS AT THE FAIR



TEACHER

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Go With the Flow Producers & Consumers at the Fair

In this lesson students will:

- ★ Use their knowledge of producers and consumers to identify them at the Fair.
- ★ Identify where the food products that are consumed come from.
- ★ Create a food web to represent producers and consumers they discovered at the Fair.

Have you ever looked at your plate and wondered where your food came from, or how it gives you energy to get through the day? Discover how energy from food moves through the food web via producers and different levels of consumers. Then, go to the fair and see examples of producers and consumers that provide YOU with energy.

Standards

- ★ Science TEKS: 4.9(A), 4.9(B)
- ★ Art TEKS: 4.2(B), 4.4(A)
- ★ *Math Connection: Since this

lesson invites 4th graders to visit some of the same areas of the fairgrounds as the "I Am Your Fodder!" lesson, consider doing both!

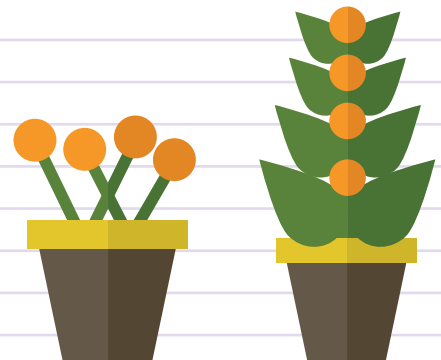
Before You Go

Use this link to explore food webs and predator/prey relationships:

<http://www.sheppardsoftware.com/content/animals/kidscorner/games/foodchaingame.htm>

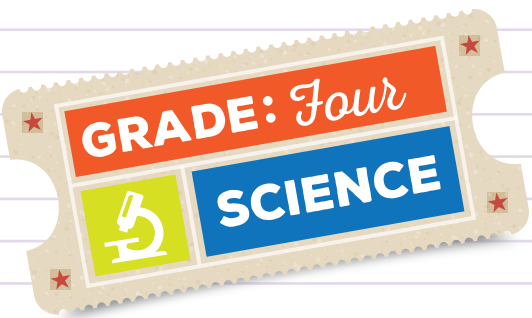
Talk to your students about the different types of producers and consumers. For example, there are three main types of consumers:

- * Primary (mainly herbivores).
- * Secondary (mainly carnivores, but also some omnivores).
- * Tertiary (top of the food chain - capable of feeding on secondary and primary).



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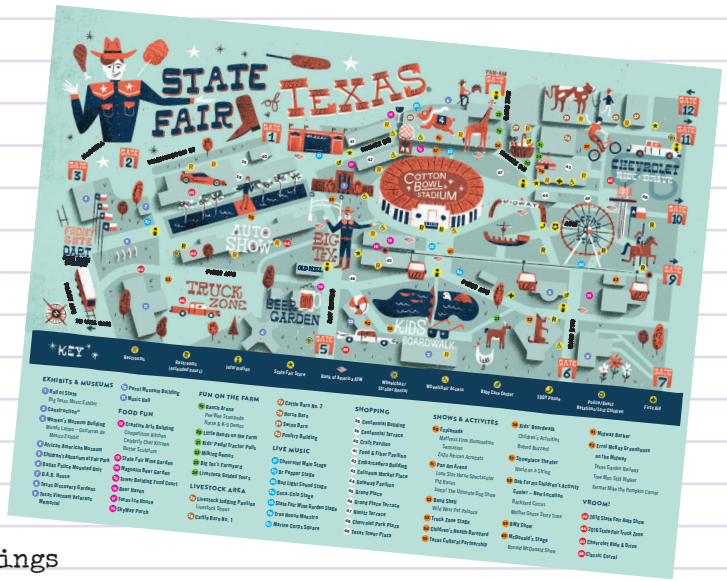
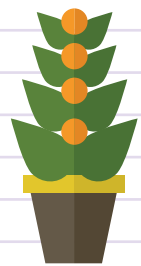
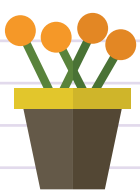
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Go With the Flow Producers & Consumers at the Fair

Plan Your Route.

★ From the Texas Star, make your way to the greenhouse.



Materials to Bring

- ★ Pencil or Pen
- ★ Science notebook or paper for notes and drawings
- ★ Sketch book for Arts Connection

While You're There

- ★ Observe the organisms in the greenhouse.


Plan Your Route.

- ★ Head up Martin Luther King Blvd to the Livestock Barns.




PLANTS

- What sources are these plants using for their energy?
- Create a sketch in your science notebook outlining the flow of energy of the organisms in the greenhouse.
- Based on your sketch, are these producers, consumers, or both? Why?



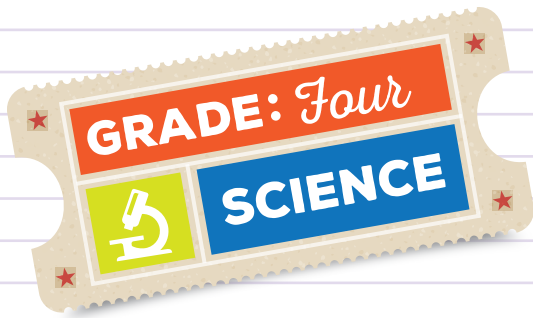
ANIMALS

- What sources are the animals using for energy?
- Create a sketch in your science notebook outlining the flow of energy of the organisms in the livestock barn.
- Based on your sketch, are these producers, consumers, or both? Why?



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Go With the Flow Producers & Consumers at the Fair



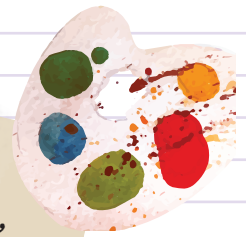
PRODUCTS

- What products do the organisms in the greenhouse and livestock barn produce that your family consumes regularly?
- Are some of your favorite foods produced by the organisms in the livestock barn and greenhouses (i.e., milk from the dairy cows for ice cream and cheese on pizza, swine for bacon in the morning or pepperoni on your pizza)?



ART

- For the Arts Connection, you'll be drawing producers and consumers and making a giant food web with the class! Start thinking of items you'd like to draw from the fair, and sketch some now, or make a list.



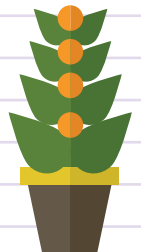
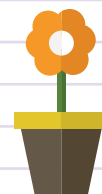
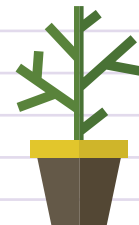
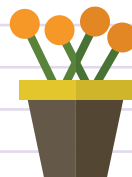
After the Fair

When you return to class following your State Fair visit, you will use your sketches from the fair to draw a food web showing the flow of energy for the organisms at the fair.

- * Include the sun as the beginning.
- * Include us as humans in the food web, as well.

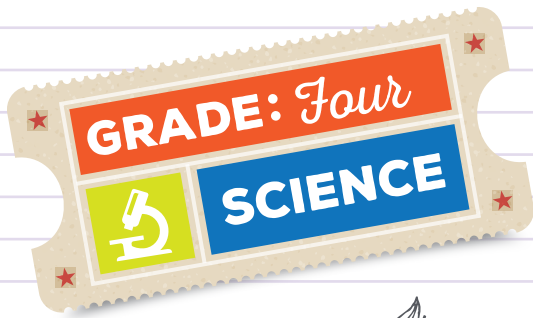
Class discussion:

- * How are the organisms at the fair important to us?
- * Even though you may not see farms in your neighborhood or even in your town, if the number of farmers declined, how would that affect your community?



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Arts Connection: Producer/Consumer Project

What is the difference between a producer and a consumer? Why are both important to the stability of our ecosystem?

After this project, students will be able to:

- * Identify the differences between a producer and a consumer, as well as some unique characteristics that make up each group.
- * Use their creativity to create original drawings of producers and consumers.
- * Work together to create a class mural that includes each of their original works in a giant class food web.



Before You Go

After discussing the three main types of consumers, invite the students to name various types of plants and animals, and, as a class, create food webs that would reflect their relationships in the ecosystem.

While You're There

While they are sketching, remind students of the game you played before coming to the fair, and the way the food chain works to support a healthy ecosystem.

After the Fair

When you return to the classroom:

- * Have the students, or pairs of students share some of their food web sketches.
- * As a class, determine the producers and consumers, as well as what type of consumers.
- * List the characteristics on the board that determine those categories.
- * Divide the class into producers and consumers.
- * Give each student a large sheet of paper. Have them create their own producer or consumer, according to the group they have been assigned to.

Remind them to:

- * Be as creative as you can when creating your producer or consumer!

- * Look at the list of characteristics of producers and consumers that you made, and your sketches of the food web.
- * Use as much of the space on the paper as possible so that details of your work can be seen.

Write a paragraph that:

- * Describes your creation.
- * Details what makes it a producer or consumer
- * Tells what unique characteristics you chose to include.
- * Cut out your producer or consumer.
- * As a class, create a giant food web that includes everyone's creations.
- * If possible, attach a large sheet of butcher paper to the wall, and draw a food web that includes each of the students' work.