

# Na, K?

*Keeping Fair Animals in Balance*

**LIVE @ THE FAIR**

**QUEST 11  
CHEMISTRY**

**STATE FAIR OF TEXAS  
CURRICULUM**

**Show animals at the Fair undergo a lot of stress from being away from their normal home. So how do the folks showing their animals keep them looking their absolute best, despite the stress? The answer just may be in the water...**



### **During this Live @ the Fair Quest, you will:**

- ★ Observe the special needs and care of show animals at the Fair.
- ★ Analyze the conductivity of various solutions, including human and animal hydration liquids.
- ★ Design a label for an energy drink that will appeal to State Fair officials.
- ★ Compose a short story from the perspective of one of the animals you observe at the Fair.

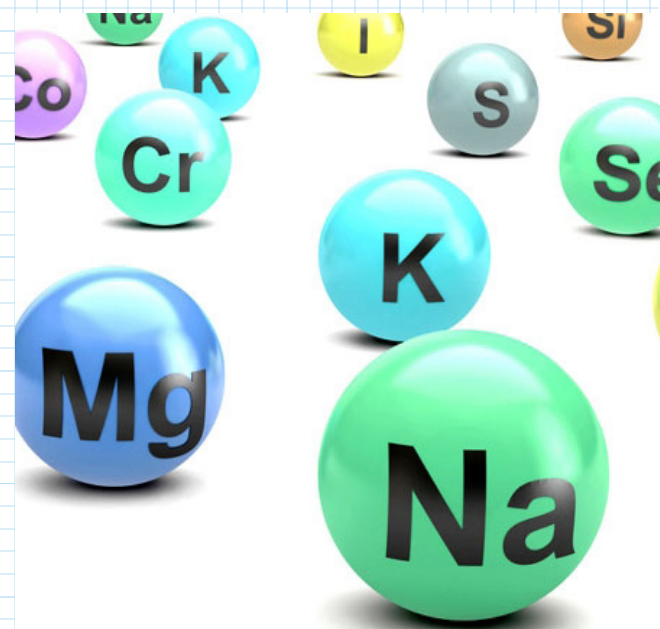


### **Standards**

- ★ Chemistry TEKS: 10A, 10E
- ★ Art TEKS: Art I: 1A, 1C, 2B, 4A; Art II: 1A, 1C, 2B, 4C
- ★ ELAR TEKS: E2(14)(A)
- ★ Career Development TEKS: 1A, 2F, 3G

### **Before You Go**

- ★ Review how energy travels through objects and the human body.
- ★ Watch the Intro to Electrolytes video: <https://www.youtube.com/watch?v=u6njrOnZcQU>
- ★ Discuss the role of water in the human body.
  - Students will probably know most of the roles from Biology.
  - Have them offer suggestions. Then fill in the ones they missed.
- ★ Discuss how electrolyte drinks versus water affect the body.



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## QUEST 11 CHEMISTRY

## STATE FAIR OF TEXAS CURRICULUM

### STATE FAIR MAP



### While You're There

The objective of your visit is to observe the unique conditions and care of show animals at the Fair.

★**WHAT'S IN THE WATER?:** Make your way to the Livestock Barns and observe the animals.

- Make a note of how their current environment is different from a typical habitat for that animal.
  - ☐ You may need to use a device to research their typical environment.
- Find someone to briefly interview:
  - ☐ What special care do the animals need while at the Fair?
- Observe how your own body feels after walking around at the Fair and going on Quests.

★**YOU'RE BEING WATCHED:** For your English project, you'll be writing a short story from the animal's perspective:

- ☐ Take a few minutes to observe some of the animals
- ☐ What are people watching them do? Are they eating? Are they sleeping? Are they pooping? Are they pacing back and forth?
- ☐ How do you think the animals feel in their pens? How do you think they feel about being watched as they eat and do their other activities?
- ☐ Make some notes about these things for your English project.



### Invitation

★ Invite students to bring the listed materials and follow the route, and perform the tasks below at the State Fair of Texas:



### Plan Your Route

- ★ Google the Woofus at the State Fair of Texas.
- ★ Go find him, and wave. Observe that the Woofus is a statue, and also a fountain.
- ★ Now you're by the Livestock Barns! Go in and observe.



### Optional Materials to Bring

- ★ Writing utensil and something to write on
- OR
- ★ A way to digitally take notes

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## After the Fair

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

- ★ **Electrolyte lab:** Use a conductivity probe to measure the conductivity of different solutions.
  - Begin with distilled water.
    - ☐ Check and record the conductivity using the probe.
  - Prepare a solution of 50ml distilled water and one teaspoon of salt.
    - ☐ Check and record conductivity using the probe.
    - ☐ Be sure to rinse the probe in distilled water in between solutions.
  - Prepare a solution of 50ml distilled water and one teaspoon of sucrose.
    - ☐ Check and record conductivity.
    - ☐ Be sure to rinse the probe in distilled water in between solutions.
  - Check and record the conductivity of the following samples provided by your teacher:
    - ☐ Gatorade
    - ☐ PowerAde
    - ☐ One or two animal specific electrolytes (Show Stopper, Final Secret, Refresh, etc.)
  - Review the results of your investigation and deduce which solution you would use if you were showing an animal at the Fair.



## ART PORTION

Livestock are not the only ones who enjoy a good electrolyte drink. Humans – especially ones that work out – need to replenish those important electrolytes as well, and there are a LOT of choices on the market to choose from. So, how do they make their choice?



Often, the label is what sells a drink. People “taste” with their eyes first, so if it’s not visually pleasing, it probably won’t sell.

- ★ Take some time to research the electrolyte drinks on the market today.
  - What do they have in common in regard to appearance?
  - What are some of their differences?
- ★ Now, it’s time to create your own energy drink, and design a catchy label.
  - Pretend you are marketing to people at the State Fair of Texas.
    - ☐ What are some images from the Fair that might appeal to them?
    - ☐ What sorts of colors are representative of the Fair?
  - Remember, simplicity is key.
    - ☐ If your design is too visually chaotic, it will not be appealing.
  - When creating your label, wrap it around an empty container so that your viewers get the full affect.
  - Present your design to your peers and talk about why they need to choose your drink over all others.
    - ☐ Take questions about your design, and invite critique so that you can perfect your design before turning it in.

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## ENGLISH PORTION

At the Fair, it is easy to see the care and effort that people put into their show animals. As you watch the animals, what do you think is going through their minds?

- ★ How would it feel to get bathed and groomed in front of thousands of people walking by your stall?
- ★ Have you ever had to eat while someone stared at you?
- ★ What other activities can you think of, and imagine what animals were thinking or feeling?
  - o Pick one animal to write a story about.
    - ☐ Use a computer or tablet.
    - ☐ Write a 1.5-page story.
    - ☐ Describe what you saw and experienced.
    - ☐ Describe how you think the animal felt about the experience.