Fair Foods on a Iotally Irophic Level

### STATE FAIR OF TEXAS CURRICULUM

### During this Foodie Quest, you will:

Explore the food energy you might get from various vendors based on trophic levels.
Identify what biomolecules you're putting into your body and how they make you feel.

QUEST 09

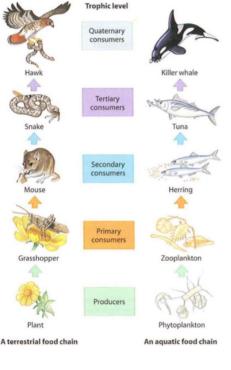
BIOLOGY

#### Standards

- \*Science (Biology) TEKS: 1B, 9A, 9C, 12C
- \*Art TEKS: Art I: 1D, 2D, 3A, 4A; Art II: 1D, 3A
- ★ELAR TEKS: E1(14)(B)
- ★Career Development TEKS: 1A

### Before You Go

- \*Introduce the basic trophic levels: producer, primary consumer, secondary consumer, tertiary consumer, and quaternary consumer.
- \*Discuss how the transfer of energy occurs
- through these levels using the pyramid model.
  \* Define biomolecules and discuss functions of
  carbohydrates, proteins, and lipids.





### 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

- ★Food vendors are located throughout the Fair.
- ★To plan ahead for what foods you'd like to try, you can check out the Texas State Fair website: www.bigtex.com

The Fair is full of things to do, shows to see, and things to eat. Explore the foods at the State Fair to discover which foods will help give you the energy needed to get through all the fun!

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## STATE FAIR MAP





### Optional Materials to Bring

★Writing utensil and something to write on ★OR

- \*A way to digitally take notes
- \*Your eating face

### While You're There

QUEST 09

BIOLOGY

The objective of your visit is to classify Fair foods by their trophic level and identify how eating these foods makes you feel.

#### ★NOMS...OR NAPS?:

- o Work your way past food and drink vendors and take note or take photos of what items they serve. Include at least 15 different products.
- o Grab some refreshments from a vendor (or two). Make note of the food or drink and how it made you feel after consumption.
- o Interview your friends, family, or fellow fairgoers and ask them what they've eaten and how it made them feel.

★POETICALICIOUS (ENGLISH PORTION): A stream of consciousness poem refers to a poem that describes your thoughts and feelings as you experience them. All of the foods and drinks that you ingest at the Fair will impact your emotions, thoughts, and physical being in different ways.

- o Choose one drink and one food item that will be the focus of two stream of consciousness poems.
- o There is no specific structure to a stream of conciousness poem, and you don't have to worry about punctuation as you write your poem, either!
- o Instead, just write down your thoughts and feelings as you experience eating and drinking the food and drink items.
- o <u>DO</u> make sure you pay attention to your five senses, how you are feeling, and what you are thinking.
- o Each poem should have one stanza with at least 15 lines.

**TROPHIC WONDER?:** Make your way over to the Swine Barn, and locate the Woofus statue, a fountain sculpture with the body of a **pig**, wings of a **duck**, tail of a **turkey**, Texas **Longhorn** horns, wool of a **sheep**, and neck of a **horse**.

o What trophic level would the Woofus belong to?

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## QUEST 09 BIOLOGY

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### After the Fair

- ★ When you return to class following your State Fair visit, you will break down each food product you noted or photographed, and make a recommendation for which food will give fairgoers the most energy throughout the day.
- ★Based on the products within each item, assign it a trophic level.
- o For example: Say you grabbed a lemonade (lemon, sugar, and water). The lemons and sugar are both from plants and thus would all belong on the "producer" level.
- o Some items such as fried meat might belong to two separate trophic levels due to the flour needed for frying and the meat inside.
- o Assign it to the trophic level that the MAJORITY of the product belongs in.
- $\star$ Be sure to place yourself at the top of the pyramid.
- \*Based on how you and the people you interviewed felt, try to classify your food product as a certain percentage of proteins, lipids, and carbohydrates.
  - o Use the internet to research nutrition information on the product and compare it against your hypothesis.
- ★Based on what you know about energy in trophic levels, what Fair foods would you recommend to give the average fairgoer the most energy to get through a fun-filled day?

# **B**ART PORTION

### Before You Go

Color has the power to alter our moods, reflect our feelings, trigger memories, and even change our energy levels! There are large bodies of research and even careers grounded in the psychological effects of color. \* Before heading to the Fair, read this excellent article on color psychology and how it affects our lives, and become familiar with some of the emotions and meanings often attributed to specific colors: http:// www.arttherapyblog.com/online/color-psychologypsychologica-effects-of-colors/#.V3xKWjXRa\_Q

- \*Not surprisingly, many artists study the psychology of color for the purposes of their art. In the late 1950s and 1960s, an artistic movement known as "color field painting" came about.
- o It was an abstract expressionist form of painting that was non-representational and focused on the ways that colors visually interacted with one another on a flat surface.
- o Research some examples of their color field work particularly that of Mark Rothko.

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Rothko, No. 16

#### When you Return

As you try your various foods and discern which ones affected your energy levels, create a color field art piece to accompany the foods and reflect your feelings using color.

- \*Think back to the articles that you read and the examples you looked at.
- o What colors or color combinations remind you of high energy?
- o What about being tired or sluggish?
- \*The medium is up to you...it could be as simple as colored pencils, or you could create large, painted works to accompany your results!

# English Portion

See the main portion of the Quest for instructions.

### When you Return

\*You may choose to share what you wrote, and then respectfully give feedback or comment, especially if others in class chose to write about the same food!