Within the busy bustle of the Midway lies the Errol McKoy Greenhouse. It’s not visited much beyond the pumpkin carving contest, but is a great place to catch a breath. In this Quest, we think you’ll see there’s more to find than just pumpkins!

During this Live @ the Fair Quest, you will:
★ Familiarize yourself with the Errol McKoy greenhouse plants
★ Note the ways that greenhouses simulate a carbon cycle.
★ Design your own Steampunk garden, inspired by the Greenhouse at the Fair
★ Compose poems describing the plants you discover

Standards
★ Environmental Science TEKS: 4A, 4B, 4C
★ Art TEKS: Art I: 1A, 2A, 2D, 3A, 4A; Art II: 1A, 2D, 3A
★ ELAR TEKS: E4(14)(B), E4(18), E4(19)
★ Career Development TEKS: 4C, 4D

Before You Go
★ Introduce a sample dichotomous key and teach students how to read it. Practice identifying photos or samples with the dichotomous key.
★ Review adaptations that trees and plants have, such as the scent of a creosote tree or the shape of the leaves in a desert plant. Talk about what adaptations plants in Texas might have in relation to the climate here.
★ Review the carbon cycle.

Source: [http://pre03.deviantart.net/76e8/th/pre/i/2013/167/9/3/steampunk_flower_garden_by_hiddendemon_666-d69cde8.jpg](http://pre03.deviantart.net/76e8/th/pre/i/2013/167/9/3/steampunk_flower_garden_by_hiddendemon_666-d69cde8.jpg)
**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**

★ Find the Errol McKoy Greenhouse on the map of the Fair, and walk there.

**Optional Materials to Bring**

★ Writing utensil and something to write on OR
★ A way to digitally take notes
★ A device with a camera
★ Measuring tape

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**While You're There**

The objective of your visit is to note what plants are growing in the Errol McKoy Greenhouse and what other features the Greenhouse has.

★ A “FROND”NESS FOR PLANTS: Enter the Errol McKoy Greenhouse.
  - Check out the variety of plants growing in the greenhouse.
  - Either take notes or take photos of plant ID tags, leaf patterns, limbs, number of shoots, height, and colors.
  - Take note of the different features of the Errol McKoy Greenhouse.
    - What is it made of? Does it have any type of temperature controls?

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**After the Fair**

When you return to class following your State Fair visit, you will use the notes and photos you took inside the Errol McKoy Greenhouse to create a dichotomous key that another student would be able to use to ID greenhouse plants without needing ID tags.

★ One example of a dichotomous key can be found here: https://www.yumpu.com/en/document/view/11362975/texas-native-plant-dichotomous-key/

★ Take a close look at the pictures or noted features of the plants in the Greenhouse.
  - Tell whether you think each one is a native Texas plant and why/why not.
  - It’s ok if you aren’t correct.

★ Use the notes you took on the features of the Greenhouse to diagram the mini carbon cycle taking place in the Greenhouse.
  - It’s ok to use the sun, even though it’s outside of the greenhouse.
**ENGLISH PORTION**

Using either the notes or the pictures you took, write descriptive poems about three of the plants you observed in the Greenhouse. The descriptive poems should:

★ Be written in free verse
★ Be organized into three stanzas with four lines each.
★ Focus on the senses and describe what the plants look, smell, and feel like.
★ Make sure that you use descriptive vocabulary, vibrant imagery, and at least two literary elements (personification, simile) in each poem.

**ART PORTION**

Using the pictures that you took of the various flowers and plants in the Errol McKoy Greenhouse, you’ll create a Steampunk garden from your favorite ones!

★ Steampunk is a form of art that pulls from a subgenre of science fiction. It combines aesthetic design with technology and is inspired by the steam-powered machinery of the 19th century.
★ Take a look at this link for a more detailed definition of Steampunk as it relates to art. [http://steampunkdistrict.com/what-is-steampunk-art/](http://steampunkdistrict.com/what-is-steampunk-art/)
★ Here’s another great link that has some incredible examples of Steampunk clothing and objects: [https://steampunkforkids.blogspot.com/](https://steampunkforkids.blogspot.com/)

Now that you have an idea of what Steampunk is, recreate some of the plants that you found in the Greenhouse in this style!

★ Think about what sorts of parts that you want to use for your plants.
★ Below is a link to a list of common parts used to create Steampunk art that you can find at a local hardware store. [http://steampunk-box.com/find-steampunk-materials-hardware-store/](http://steampunk-box.com/find-steampunk-materials-hardware-store/)
  ○ Take a look at the list to get some ideas and see what you might have lying around the house that would work as well.
★ Have fun with this, and get creative!
★ When you have finished, present your Steampunk garden to your peers.
  ○ See if they can guess which plants from the Greenhouse you recreated.
  ○ Discuss your process, the parts that you used, and what makes your sculptures Steampunk.