

## LESSON PLAN

**Name:** Walling

**Date:** February 8, 2017

**Subject / Grade Level:**

10, Intellectual Quest

**TEKS:**

112.37 (a, b; 1-3)

**Materials:**

Computer, Paper, Pencil/ Pen

**Through Lines for the Year:**

1. What are the skills that humans and wildlife use to survive in the wild?
2. What conditions within a habitat enable wildlife and humans to act upon survival skills?
3. Are there similarities between wildlife and humans that they share when faced with dangers?
4. Do humans have a drastic change in wildlife habitat when they occupy it?

**Generative Topic for the Week:**

Pollinator's Journey

**How does this lesson plan reflect your action plan?**

---

### ENGAGEMENT

*Describe how the teacher will capture student's interest.*

Day 1:

- Students will receive an overview of what the topic is about. They will create a drawing of a flower and add in the creatures they think help pollinate.
- Watch "More Than Honey" a film documentary by Marcus Imhoof. The documentary is about beekeepers, scientists and others discussing the world's declining bee population and what it may mean for modern society.

Day 2: Field Trip – Texas Discovery Gardens

- At the Texas Discovery Gardens, our students will listen John Watts, The Texas Discovery Gardens Entomologist on the topic of Monarch butterflies. He will present the information about the Monarch Butterfly which focuses specifically on Monarchs and their annual migration phenomena.
- What kind of questions should the students ask themselves after the engagement?

Day 3:

- Students are to choose their migratory pollinator
- Students will create a presentation with the following information to be answered:

- Pollination Definition: Use your own words
- Your chosen migratory pollinator (include scientific name)
- Scientific drawing describing pollinator
- Relationship to the plant they eat from more often
- Why your migratory pollinator eats from a certain plant
- What is a migratory corridor?
- Why is your migratory pollinator so important?
- How is your migratory pollinator threatened?
- What would happen if your pollinator began to disappear?
- Include a Works Sited slide

*What kind of questions should the students ask themselves after the engagement?*

Questions to ask themselves:

- What generalization can you make from this information?
- How does the migration work?
- Where can I see monarch butterflies?
- When is the migration season?

## **EXPLORATION**

*Describe what hands-on/minds-on activities students will be doing.*

*List “big idea” conceptual questions the teacher will use to encourage and/or focus student’s*

Day 1:

- Students will receive an overview of what the topic is about. They will create a drawing of a flower and add in the creatures they think help pollinate.
- Watch “More Than Honey” a film documentary by Marcus Imhoof. The documentary is about beekeepers, scientists and others discussing the world's declining bee population and what it may mean for modern society. Students will answer a certain set of questions that go along with the documentary.

Day 2: Field Trip – Texas Discovery Gardens

- At the Texas Discovery Gardens, our students will listen John Watts, The Texas Discovery Gardens Entomologist on the topic of Monarch butterflies. He will present the information about the Monarch Butterfly which focuses specifically on Monarchs and their annual migration phenomena.

Day 3:

- Students are to choose their migratory pollinator
- Students will visit computer lab and create a presentation on their pollinator
- Students will create a presentation and present it to the class

## **EXPLANATION**

*Student explanations should precede introduction of terms or explanations by the teacher. What questions or techniques will the teacher use to help students connect their exploration to the concept under examination?*

*List higher order thinking questions which teachers will use to solicit student explanations and help them to justify their explanations.*

Questions to ask themselves:

- What generalization can you make from this information?
- How does the migration work?
- Where can I see monarch butterflies?
- When is the migration season?

## **ELABORATION**

*Describe how students will develop more sophisticated understanding of the concept.*

- Students see science as a set of practices that builds models to account for patterns of evidence in the natural world, and that what counts as evidence is contingent on making careful observations and building arguments, then they will have greater success in their efforts to build knowledge.

*What vocabulary will be introduced and how will it connect to student's observations?*

Vocabulary:

- |                 |                     |                       |
|-----------------|---------------------|-----------------------|
| • Mutualism     | • Symbiosis         | • Ecosystem Diversity |
| • Commensalisms | • Competition       | • Composition         |
| • Parasitism    | • Genetic Diversity | • Structure           |
| • Synergism     | • Species Diversity | • Function            |

*How is this knowledge applied in our daily lives?*

- The knowledge of migration will increase awareness among the students. If and when they see a migratory species they know about, they will be able to share their previous knowledge.

## **EVALUATION**

*How will students demonstrate that they have achieved the lesson objective?*

- Each student will research a migratory species
- Create a presentation on their species
- Draw a scientific layout of their species