# Insects and Pollinators 5E Lesson Plan

- 2. Subject area / course / grade level: Kindergarten Science
- 3. Materials List: 2 pairs of wool gloves, tiny cut pieces of Velcro, projector and computer to project videos from, insects and pollinators trunk from urban wildlife program, two buckets decorated as flowers, two additional buckets
- 4. Overarching TEKS, <u>ELPS</u>, <u>CCRS</u>, and Global Graduate/other district standards (chart or list).

TEK	CCRS	ELPS	Other
K.10. B	RI.4.7	K.2, K.4	

## 5. Lesson Objective/Summary:

TLW describe pollination and explain its importance in the environment.

### 7. Community-Based Resources:

- A. How can you incorporate a local community member? Expose students to different careers, with people that look like them, in Houston. Find a list of organizations through the <u>Citizens'</u> <u>Environmental Coalition</u> or make a request on <u>NEPRIS</u>. Consider all of the levels in a socio-economic model, like the one seen here
  - I would invite Della Barbato to speak with the students about the importance of preserving native pollinators and her expertise on creating a pocket prairie on our campus.
- B. How can you tweak the lesson to include themes relevant to Houstonians?

  I would like to take a field trip to visit a local prairie in Houston and incorporate the content learned through class discussions comparing our man-made pocket prairie to the prairie that we visit.

5E Model Lesson Plans Resources (used below): <u>Different Es</u>, <u>Origins of the Model</u>, <u>Videos with Dr</u>. <u>Nancy Moreno</u>. Please describe each component of the lesson, and link applicable materials.

#### 8. Engage:

Students prior knowledge accessed and interest engaged.

Read aloud the book "In the trees, honey bees" Written by Lori Mortensen with class discussion on pollination and the bee's impact on it.

#### 9. Explore:

Students participate in an activity that facilitates conceptual change. Provide time to think, plan, investigate and organize collected information. Make sure this is student-centered, not teacher-centered. Give students time to think!

The students will participate in an active team-challenge that allows them to be a honey bee. They must collect as much pollen as possible and return it back to their hive. The students will be grouped into 2 groups. Each group will have a pair of wool gloves. One student at a time from each group must put on the wool gloves, go to the "flower" bucket and pull out a capri sun (nectar) from the bucket while collecting as many tiny Velcro pieces (pollen) as possible then placing the Velcro pieces in their team bucket (hive). When the student has placed all of their pollen into the bucket, it is the next student's turn. The team with the most pollen collected wins the challenge.

## 10. Explanation:

Students generate an explanation of the phenomenon. They connect previous experiences with current learning to make sense of the topic. Great chance to bring in community resources.

Think-pair-share reflection discussions regarding the importance of collecting pollen and how it is collected.

#### 11. Elaboration:

Students' understanding of the phenomenon challenged and deepened through new experiences. They apply or extend concepts to a real world application. Need ideas? Try <u>Lead4ward</u> or the <u>Teacher Tool Kit</u>. Great chance to bring in community resources.

TTW show and explain the Insects and Pollinators trunk from Urban Wildlife Program with supplemental videos regarding pollination from other insects.

Supplemental videos:

 $\frac{https://gofflebrookfarms.com/how-do-butterflies-pollinate-plants/}{https://youtu.be/MQiszdkOwuU}$ 

#### 12. Evaluation:

Students assess their understanding of the phenomenon, identifying what they learned and how they learned it. Summative assessments applicable.

The students are to create an illustration of what pollination looks like, including at least one insect.