

Third Grade MASTER Model AG SEEDLINGS UNIT

Leading Scientific Question

Pollinators - How can evidence and claims support our understanding of living organisms and their environment?

Scientific Sub-question

How are fossils evidence of pollinators life cycles?

- How do research scientist analyze & interperate data to provide evidence about fossils?
- How can models describe pollinator's unique & diverse life cycles?

Lesson- DIY Plant Fossils

- Students will read & interrupt article "Prehistoric Pollinators"
- Students will watch video on fossils.
- Students will go outside & observe school's envoriment. Choose a plant specimen.
- Students will make a fossil model of plant specimen using DIY fossil recipe.
- Read Aloud- "The Street Beneath My Feet." By Charlotte Guilain
- When model is set, students will intepret & collect data on fossils.

Scientific Sub-question

What characterisitcs do some pollinator species use to survive?

- What traits do bees use to communicate?
- Can the Waggle Dance be influenced by the bee's enviroment?

Lesson- The Waggle Dance

- Students will read & interrupt article, *on the Waggle Dance.*
- Students will watch video to observe the waggle dance.
- Read aloud- "Bee Dance" by: Rick Chrustowski
- Students will create their own Waggle Dance to communicate to others where a food source is.
- Students will perform drafted Waggle Dance to test it. (Alternate; students draw key using arrows to show food source as a form of communication.)

Scientific Sub-question

How does the environment affect living organisms? (How do living organisms affect the environment?)

- How do humans affect the envoriment?
- How do pollinators affect the envoriment?

Lesson- Bee-Healthy Farm

- Student will read & answer questions in "Bee Healthy Farms" reading passage, located in google folder.
- Watch short student videos about "Planting a Garden" and/or "The Arboretume at Penn State".
- Teacher will model to student how to read "Plants Arranged by Bloom time List" located in google folder.
- Students will create a garden layout of different nutritional plants for pollinators.
- Read aloud- "The Farm That Feeds Us." By: Nancy Castaldo

Scientific Sub-question

How can pollinator traits be influenced by their environment?

- Can plant structures show evidence of what pollinators benefit from them?
- Can pollinator's traits evolve overtime due to thier enviroment?

Lesson- Match That Pollinator

- Students will read about the important of plant structures and what pollinators are attracted to.
- Students will watch video on reccomended videos.
- Read aloud- "Evelyn The Adventurous Entomologist" by: christine Evans
- Students will measure and match lengths of pollinators' tongues.
- Students will then use measurement data to correlate the correct plant for pollinating & collecting.