

Pre-Visit/Post-Visit Guide

Lesson Name: Pollinator Engineers

Summary of Lesson:

Students will explore how changes in habitats can be harmful and helpful to the organisms that live there. They will learn about the field of agricultural engineering (bioengineering), the role of insects in pollination, and the technology involved in hand-pollination as they are challenged to create and test pollination devices to solve an engineering challenge.

South Carolina Science Standards: 3L.5B.1; 3.L.5B.2, 3.S.1B.1, 3.S.1A.2

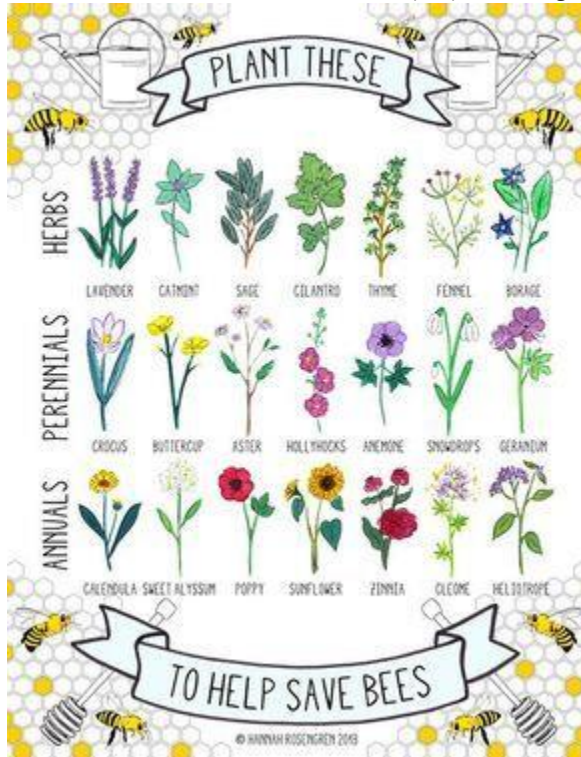
Pre-Visit Resources

- **Teacher/Chaperone Expectations:** Please help us by letting us know of any special accommodations for your children prior to the lesson. Your assistance with classroom management and distribution of materials will also be greatly appreciated.
- **Instruction for Teachers:**
 - Please report to the Harrison Hall of Science for this lesson. Students will work in pairs.
- **Key Vocabulary:** pollinator, technological design
- **Key Questions Addressed in Lesson:**
 - Why do engineers study adaptations before solving a problem?
 - How do changes in habitats affect humans and the organisms that live there?
 - What are some advantages and disadvantages of using a hand pollinator?
 - What can I do to help the pollinator populations?
- **Content Preview Video:**
 - The Hidden beauty of pollination (4:18) <https://thekidshouldseethis.com/post/24197729858>

Post-Visit Resources

- **Writing Prompt:** You are a pollinator of your choice. Write a detailed story from your viewpoint of a typical day. Include a description of what you are, how you interact with plants, and why you use certain plants.
- **Possible Lesson Link:**

- Help save bee populations simply by planting flowers!



- **Video Link:**
 - Withee Labs present "Why are the bees disappearing?" (6:15) https://www.youtube.com/watch?time_continue=8&v=DJPP_HALGhs
- **Career Connections:**
 - Beekeeping with Maddie (19 videos) <https://www.youtube.com/playlist?list=PLmTANLv-GyXXqmwkldXcNYoY6Sy1t0Pg>