



Community Science

Pollinators

Lesson 2: How to identify a species

Duration: 50 mins - 1 hour

Location: Indoors

Overview

In this lesson students will:

Explore what makes pollinators special and learn ways to identify bumblebees. Learn the differences between deciduous and coniferous trees and leaf shapes. Students will be introduced to field guides and participate in activities to challenge their observation and identification skills using biofacts and technology.

Learning objectives

By the end of the session, students will be able to:

- Understand characteristics used to identify bumble bees
- Specify differences between coniferous and deciduous trees
- Identify different leaf shapes
- Understand the purpose of field guides and practice utilizing them to identify birds and other animals
- Use QR codes and iPads to obtain information about biofacts

Curriculum links

Grade: 6

Subject and Unit: Science, Trees and Forests

- Identify reasons why trees and forests are valued. Students meeting this expectation should be aware that forests serve as habitat for a variety of living things and are important to human needs for recreation, for raw materials and for a life-supporting environment
- Identify general characteristics that distinguish trees from other plants, and characteristics that distinguish deciduous from coniferous trees;
- Describe and classify leaf shapes, leaf arrangements, branching patterns and the overall form of a tree.



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Equipment required

- PowerPoint called "Lesson 2 how to id a species (grade 6 pollinators)"
- Biofact QR Code Activity instructions
- 7 iPads/tablets
- 7-9 biofacts and QR codes
- 7 digital microscopes
- Laminated student observation sheets
- Erasable markers
- Computer with Wi-Fi
- Projector



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Lesson plan

| Time | Activity | Equipment needed |
|------------|---|---|
| 3-5 mins | How are pollinators special? (slide 2) <ul style="list-style-type: none">- Ask students what they think makes pollinators special- Go through the slide notes as a guide | <ul style="list-style-type: none">• Computer with Wi-Fi• Projector |
| 3-5 mins | What are ways we can identify bumble bees? Guess who activity (slides 3-6) <ul style="list-style-type: none">- review body parts of the bee: head, thorax, and abdomen on slide 3- Guess who activity: using the diagram on the left, students will have to guess what bumble bee species it from the real-life images presented- Go through the slide notes as a guide and for answers | <ul style="list-style-type: none">• Computer with Wi-Fi• Projector |
| 5 mins | Where do pollinators find habitat? Identifying Trees (slide 7-10) <ul style="list-style-type: none">- Introduce deciduous and coniferous trees: identify differences between the types- Leaf shapes- Challenge for students: Think Like a Conservation Scientist – students will be challenged to identify the images of trees and leaves based on what they've learned- Go through the slide notes as a guide | <ul style="list-style-type: none">• Computer with Wi-Fi• Projector• Field Guides (optional) |
| 3 mins | What do we use to identify pollinators and trees? (slide 11) <ul style="list-style-type: none">- Watch introductory video to field guides | <ul style="list-style-type: none">• Computer with Wi-Fi• Projector• Field Guides |
| 30-40 mins | Biofact Blitz Activity (slides 8-10) <ul style="list-style-type: none">- Review slide 12 for the biofact rules | <ul style="list-style-type: none">• Computer with Wi-Fi• Projector• Field guides (at least one per station) |



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| | <ul style="list-style-type: none">- Set up classroom for activity and review slide 13 for the activity instructions for the students (refer to the Biofact Blitz Activity Instructions)- Allow each group to see at least a few biofacts and fill out the observation sheets for them- End the session with the Biofact Blitz Debrief on slide 14 | <ul style="list-style-type: none">• 7 iPads/tablets (one per station)• 7 biofacts (one per station)• Digital microscopes (refer to Biofact Blitz Activity Instructions for instructions of use)• 7 laminated observation worksheets (one per station) |
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