



# Community Science

## Lesson 2: How to Identify a Species

**Duration:** 30-40 minutes **Location:** Indoor

### Materials needed:

- 7 iPads/tablets
- 7-9 Biofacts and QR codes
- 7 Digital microscopes

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### Instructions for activity:

1. Set up numbered biofact stations around your classroom or learning area, either by placing biofacts on separate tables or in different parts of the room. Each station should have: a biofact, a paired QR code (both the biofact and the QR code will have matching numbers), magnifying glasses, an iPad/tablet (connected to wifi), and a digital microscope.
2. Divide your classroom into equal groups of 7 and assign each one to the set-up stations. Review the biofacts rules with your students (refer to PowerPoint presentation).
3. Instruct each group to observe their biofact at their station using the tools provided and to notice a minimum of 5 things about it. Instruct students to write their observations down on the laminated Observation Sheets provided in the kit.
4. Once they have filled in observations, have them open the cameras on their iPad/tablet and view the QR code on each biofact. The iPad/tablet should allow them to open a webpage to find out what bird or animal the biofact is from, along with information about it.
5. Instruct the students to answer the questions on the sheet from the webpage.
6. Have students rotate from station to station to see at least a few different biofacts.
7. Finish up with a debrief (refer to PowerPoint presentation).



### Instructions for digital microscope set-up:

1. Plug in the digital microscope into the iPad.
2. Open the HiView app on the iPad.
3. Once the app opens, click "Device" from menu bar and then click "Open", and "Open" again with the preset options. The screen should open the microscope view. You will see the item upside down (this is normal).
4. Take the clear cap off from the microscope (but don't lose this).
5. Use the sliver dial on the microscope to adjust the magnification, this will need to be changed as different items are viewed under the microscope.
6. Use the black dial on the cord to adjust the lighting.
7. Encourage the students to use the tools in the tool bar on the app, such as drawing lines or shapes around items they see.
8. Click the small silver button on the side to take a photo of what you see!
9. When done using the microscope, place the cap back on the microscope and unplug from the iPad.

### Tips on digital microscope use:

- The more light, the better!
- have students try to find a body part (i.e. head, leg, etc) to focus on to get them familiar with the microscope
- Some biofacts may be difficult to view under the microscope because they are larger than others. In this case encourage students to zone in on a part of the larger item or use the magnifying glasses instead