## Backpack Guide

Explore, document, and learn about the living things at a park or your neighborhood!

### Overview

Let's go explore! Museum in the Parks is a newly designed Florida Museum program providing unique in-person and digital science programming focused on natural history. In this guide, we cover all of the tools in the kit and how to use them as you explore Florida's natural history through parks and your own neighborhood.

Exploration Backpacks are available at all 12 Alachua County Library District locations for library card holders! Borrow a backpack and use the tools inside to enhance your exploration experience, just like scientists in the field.



### What is in your backpack?

Items	Location in backpack
Binoculars	Back zipper pocket
Plant Press	Front zipper pocket
Butterfly Net	Back zipper pocket
Mesh Bug Enclosure	Back zipper pocket
Bug lens case	Front zipper pocket
Hand Lens	Front zipper pocket
Clipboard (paper not included)	Back zipper pocket
Pocket Microscope	Front zipper pocket
The Nature of Florida Guide	Back zipper pocket

Once finished, please return items to their original location.







### How-to-use this Kit

This backpack includes different instruments and tools that scientists use to document and identify specimens. In this section, we guide you through each item and how to use them.

Binoculars are instruments used for making observations from a distance by making them look larger, as if you were seeing them from much closer. First, place the binoculars in front of your eyes. Once in position, grasp each barrel firmly and adjust the central hinge until you see a single circular field. To focus your binoculars, rotate the central focusing knob until the image is sharp. For more information, see instructions inside case for care and use. Tip: Always keep your eyes on your subject and then bring the binoculars up to your eyes. That way you don't lose sight of your bird or bug!

Bug Lens Cases are used to observe insects closely. To use this, you first open the bug lens case, place the bug carefully inside the lens case and finally close the case.

Butterfly Nets are instruments used to catch all kinds of insects (not just butterflies!). There are two ways to use a butterfly net. For both methods, make sure you look around and have room to safely swing your net.

Aerial netting: The way most people have seen is aerial netting, which means you swing the net in the air to catch flying insects.

Sweep netting: First, you hold the butterfly net with the net facing the ground. Then, you do a slow sweeping motion along the grass.

Clipboards are used for keeping notes in place while making observations in nature.

Hand Lens is a tool used for making close observations. To use a hand lens, you must have the object of observation under your hand lens. Slowly move the lens closer and farther away from the object until it comes into clear focus.

Mesh Bug Enclosures are used to provide shelter for insects. In this case, we use bug enclosures to keep the insects we collect safe while we are out exploring our park.

Always make sure to release your bugs before leaving the park.

Plant presses are tools that botanists use for preserving plant specimens. To use a plant press, follow the instructions below:

- 1. Take rubber bands off plant press
- 2. Remove and set aside one press board (the brown, outside boards)
- 3. Place plant specimen between two blotters (the thin, smooth paper), like a sandwich.







- 4. Then place your plant sandwich between two ventilators (the thicker, rougher cardboard).
- 5. You can repeat steps 3 and 4 to add more plant specimens.
- 6. Once finished, place all plant specimens between the 2 press boards and reapply rubber bands over both press boards lengthwise.
- 7. Allow the plants to dry for a period of 48 hours.

Pocket Microscopes are small versions of microscopes and are easy to use! They have a button to turn on an LED light, and you can use the slider to adjust the magnification. It also has a focus knob to fine tune the image. Make sure you turn the light off when you are done to preserve the battery life.

Nature of Florida Guide is a very helpful field guide to assist you in identifying plants and animals at the park. This guide is divided by different types of animals and plants you may encounter.

## Getting ready for the park!

#### Have Fun, Stay Safe

Adventuring outside with children is more about exploring what you find, not the destination!

- Have fun and be flexible.
- Give the kids some control, but keep them close.
- Bring snacks and plenty of fluids.
- Dress in layers and wear closed-toe shoes, long sleeves, pants and a hat to protect your skin from sunburn and insect bites.
- Pick a short, interesting hike and allow a lot of time.
- Check your surroundings and watch where you step. Be extra cautious near water.
- Be prepared with first aid and plan for weather!
- Review with the kids each hike what to do if they should become separated from you.

#### **Ethics of Collecting**

- Respect all living things including all plants and animals.
- Return all living creatures back to where you found them.
- Collect carefully!
- Respect others property, watch for posted signs and private property.
- Take a close look at nature, but best practice is to return natural items where they were found.







## Digital resources (Library Kit)

The following digital resources will help guide your experience by meeting scientists, learning about the research that they do and the importance of parks for Florida's natural history. We hope each of these units will inspire you to look at birds, mushrooms, fishes, and bugs at our nearby parks!



#### Join us on our project at iNaturalist!

Make your observations and add them to this iNaturalist project to have a scientist help you identify the plants and animals that you encounter during your explorations. By doing this, you will also be helping scientists know what biodiversity can be found in your local parks! To learn more on how to get started with iNaturalist, visit inaturalist.org and click on the "More" tab and then "Video Tutorials".



### Acknowledgement

This project was made possible in part by the Institute of Museum and Library Services [MA-251532-OMS-22].





