

# K-5 Everglades Champion Schools

## APPLICATION RESOURCES

Category II. Indicator C. Field Experiences and Field Studies

A reference document designed to help with navigating the Everglades Champion Schools application process.

## What is a Field Experience?

Applies to K-5 Champion School Evaluation Criteria - Category II, Indicator C

*Field Experiences*, while not mandatory, allow students to learn about the Everglades through guided first-hand observations and/or investigations that allow *students to collect data in the field* or outdoors in their local environments including your school grounds and natural areas.

If schools are not permitted to provide a direct interaction with their local environment, virtual Everglades-based field experiences are applicable. We have a great set of virtual field experiences from **Odyssey Earth**, complete with student data sheets, and field guides on our website or select the link below to get started.

Start your Interactive 360-degree virtual field experiences here.

Like Indicator B, the point structure is also based on the percentage of students in the school who participate in at least one field experience. Please keep in mind that field trips are a great way to get your students outdoors, but you would want to adjust your trip a little bit so that the students have the opportunity to collect data to be considered a field experience.

For example, a field trip may be students taking an airboat excursion in the Everglades to observe the plants and animals. But you can dive deeper by having students collect and compare the water quality data from several different locations, including natural areas and canals.

### **Examples of Field Experiences**

- Pair the Mangrove Swamp Interactive 360-degree habitat video with a field guide and the provided student field datasheet to conduct a virtual field experience.
- Students attend a field trip to a hardwood hammock to learn about food chains in this habitat. Students analyze and record data on scat samples from animals of the hardwood hammock and try to identify which animal the scat belongs to.
- Students conduct bird counts or other plant/wildlife surveys on or off school grounds and then classify if the species are native or non-native species of the Everglades.



## What is a Field Study?

**Description:** A field study inquiry question contains at least 2 variables (dependent and independent) that can be tested. The question must also provide the specific parameters of the study. A field study can be an extension of the Everglades Literacy Teacher Toolkit, but it cannot be the same lesson.

**Definitions:** An **independent variable (cause)** is a variable that stands alone and isn't changed by the other **variables** you are trying to measure. Usually, when you are looking for a relationship between two things, you are trying to find out what makes the **dependent variable** (**effect)** change. A **dependent variable** is the **variable** being measured in the field study.

Inquiry Question: Does the			(independent variable) affect the				
	(dependent	variable)	of	the		(location	or
parameters of the study)?							



## Field Study Examples

#### **Example 1: Scat Forensics Field Study**

Students attended a field trip to learn about food chains in ecosystems and the different animals that inhabit South Florida's ecosystems. Students participated in an indoor lesson about animal scat. In small groups, students discussed the diets of different animals, identified scat samples, and made edible scat. After the indoor lesson, students hiked through the natural areas looking for animal tracks, with a focus on the hardwood hammock habitat. Students tried to analyze which animal the scat belongs to by considering location, size, and contents.

**Inquiry Question:** How can <u>scat observations</u> (independent variable) determine the <u>animal identification or type of consumer</u> (dependent) living in the <u>hardwood hammock</u> (parameters)?

#### Example 2: Lake Apopka Water Quality Field Study

Students took a field trip to the North Apopka Shore. The SJRW Management team took all of the students and parents on a trip around Lake Apopka and the wetlands. They talked about water conservation, land conservation, and how the water was being cleaned. They took several stops for the students to see the water pumping stations and lake cleanup. Then their attention was focused on the plants and animals that use the lake. They also learned about all the new sightings of birds at the North Shore. Students conducted water quality testing of the lake before and after the water pumping stations. Then they went back to class and summarized the data from the water samples.

Inquiry Question: How does the <u>water pumping station</u> (independent variable) affect the <u>water quality</u> (dependent variable) of <u>Lake Apopka</u> (parameters)?

## Field Study Examples

#### **Example 3: Bird Field Study**

Students participated in a bird field study. After learning and studying about native birds in the Everglades, students were asked to identify the birds native to the schoolyard. Classes went outside around the school at different times of the day (front and back, within the sanctuary) to identify the birds within the environment. Students used the Audubon of Florida Checklist of Florida Birds to document the birds identified. Students tracked for 1 month every other day at different times throughout the school day. After collecting the data, students compared the native birds found in the schoolyard to the native birds in the Everglades.

**Inquiry Question:** Does the <u>time of day</u> (independent variable) affect the <u>number of native birds</u> (dependent variable) found in the <u>schoolyard</u> (parameters)?

#### Example 4: Hardwood Hammock Water Sample Field Study

Students took a trip to the Tibet-Butler Preserve and explored the hardwood hammock area of the park. They took water samples from different areas and looked at them under a microscope. They charted what type of animals they found in the different areas.

Inquiry Question: Does the <u>location</u> (independent variable) affect the <u>number of living organisms</u> (dependent variable) found in the <u>water sample in the hardwood hammock</u> (parameters)?

\*\*Not sure if you have a testable inquiry question for your field study or project? Check out this guide to writing an inquiry-based question provided by Sea Grant, Michigan

https://www.michiganseagrant.org/lessons/teacher-tools/guide-to-writing-an-inquiry-based-question/