

## ATTENTION

# WETLAND WARRIORS!

*In this investigation, students will explore the physical characteristics, habitats and adaptations of amphibians found in a local freshwater wetland.*

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**GA standard:**

S3L1 (Grade 3)

**Driving investigation question:**

*How do amphibians survive in their habitat?*

**Learning goal:**

*I can identify different amphibians in a freshwater wetland and describe their physical features, adaptations and habitats.*

**Focal scientific practices:**

- Observing
- Collecting evidence and analyzing data
- Obtaining and communicating information

**Materials:**

- Five amphibian cards (*placed along the Discovery Trail or other chosen location*)
- Marsh Lab Travel Pass (one for each student)
- Clipboards
- Pencils

**Key science terms:**

Adaptation	Metamorphosis
Amphibian	Tadpole
Aquatic	Terrestrial
Frog	Toad
Habitat	

**Time:** 40 minutes

## Background information

Wetlands are areas covered for most of the year by water and include marshes and swamps. Wetlands are beneficial to the community because they provide protection from flooding, improve water quality, and decrease erosion of the coastline. Wetlands also provide habitat for aquatic and terrestrial plants and animals such as mosses, birds, and many different types of amphibians.

An amphibian is a cold-blooded animal that has a “double life,” or two distinct phases during its life cycle – a larval stage and an adult stage. They begin life in water and undergo a process called metamorphosis as they mature on land and develop lungs. The three main types of amphibians are frogs/toads, salamanders/newts, and caecilians.

Some amphibian adaptations include webbed feet, breathable skin and lungs in adults instead of gills. These adaptations make it possible for amphibians to live both on land and in water. The amphibians found along the Discovery Trail at Oglethorpe Point Elementary possess these adaptations and can thrive in the wetland environment.

## Procedure

*Prior to beginning the investigation, display four pictures of different amphibians in their habitat along a freshwater wetland site or other chosen location. Give each student a “Marsh Lab Travel Pass,” a pencil and a clipboard to record their observations and data while on the trail.*

**1.** Before the investigation begins, have students examine one of the amphibian pictures (the remaining four should be along the trail). Ask students to point out the physical features or adaptations of the amphibian that allow it to survive in its habitat. \*This serves a model for the students.

**2.** Read the call to action located in the Marsh Lab Travel Pass to the whole group. Amphibians are creatures that look completely different from us. Their features and adaptations have a unique purpose to help them survive in their habitat.

*Dear 3rd Grade Investigators,*

*Your help is needed by scientists at the University of Georgia Marine Extension and Georgia Sea Grant. A freshwater wetland is home to a wide variety of amphibians. The scientists would like to have a database of amphibians that share this habitat. We will identify amphibians located along the trail and provide scientists with descriptions of the physical features and adaptations that allow them to survive in the wetland habitat.*

**3.** Divide students into four equal groups and remind them that although they are working in a group, they should each complete their own Marsh Lab Travel Pass.

**4.** There are four amphibian cards to be observed along the trail. Have students move with their group to each of the four sites, spending approximately five minutes at each site.

**5.** It is then time for the students to collect data from all habitat sites by observing and recording data about the physical features and adaptations of amphibians seen in the habitat. The students should be instructed to make their way to their first location (or the first amphibian card).

**6.** While students are making their observations, remind them to record information about the animal’s physical features or adaptations and habitat in the Marsh Lab Travel Pass. Encourage them to be quiet and look for live amphibians in the wetland as well! Be sure to monitor student progress and ensure student safety.

**7.** Before moving to the next site, prompt students to share and discuss their findings among their group.

8. Have students visit the remaining sites, spending approximately 3–5 minutes at each location.

9. Concluding the activity, have students respond to and discuss the two “Amphibian Analysis” questions in the Marsh Lab Travel Pass. These questions will help students make connections between an amphibian’s physical features and adaptations and their survival in the wetland habitat.

**Extensions:**

- Have students examine images of reptiles and compare and contrast the features and adaptations with the amphibians they encountered on the trail.
- Examine pictures of salamanders and have students predict what kind of habitat they might find this amphibian in.
- Using the data collected in the Marsh Lab Travel Pass, have students create their own map for visitors that displays the amphibians and their habitats at each location.

# SOUTHERN CRICKET FROG



Spotted  
on the  
Discovery  
Trail!

# SOUTHERN LEOPARD FROG



Photo by Judy Gallagher - Southern Leopard Frog - *Lithobates sphenoccephalus*, Occoquan Bay National Wildlife Refuge, Woodbridge, Virginia, CC BY 2.0, <https://commons.wikimedia.org/w/index.php?curid=66899583>



Spotted  
on the  
Discovery  
Trail!

# BULLFROG



Spotted  
on the  
Discovery  
Trail!

# GREEN TREE FROG



Photo by Froggydarb - English Wikipedia, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=858891>



Spotted  
on the  
Discovery  
Trail!

# SQUIRREL TREE FROG



Photos by Brittany Bloom, University of Georgia - edited by J.D. Willson

Spotted  
on the  
Discovery  
Trail!



# AMPHIBIAN LIFE STAGES



REPTILES

# GROUND SKINK



# GREEN ANOLE



The  
Green Anole  
is the only anole  
native to the U.S.

It can change colors  
and is commonly called  
the American  
Chameleon!



# BROWN ANOLE



SALAMANDERS

# SPOTTED SALAMANDER



# SOUTHERN DUSKY SALAMANDER



# SOUTHERN TWO-LINED SALAMANDER

