

Nature Walks Lesson Plan

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Northwest Arkansas Community College

EMPACTS Project

Introduction /Overview

Created lesson plan focused on getting people outside in nature while implementing technology

Used different apps to make nature walks more educational

Community

Northwest Arkansas large scale, NWACC or high school classes that want to use it.

My lesson plan helps to get kids outside and teach them about nature and geology

Uploaded to sharemylesson.com

https://sharemylesson.com/teaching-resource/nature-walks-lesson-plan-400276.html_cf_id=400276&aml_cf_et=node&aml_cf_op=1&aml_cf_ts=1639006123

Curriculum

- ▶ Relate geological principles to environmental issues
- ▶ 8th - college level courses
- ▶ Biology, Geology, Environmental studies

Technology



ALLTRAILS - LOCAL TRAIL
DATABASE



ROCKCHECK - IDENTIFY
ROCKS STEP BY STEP

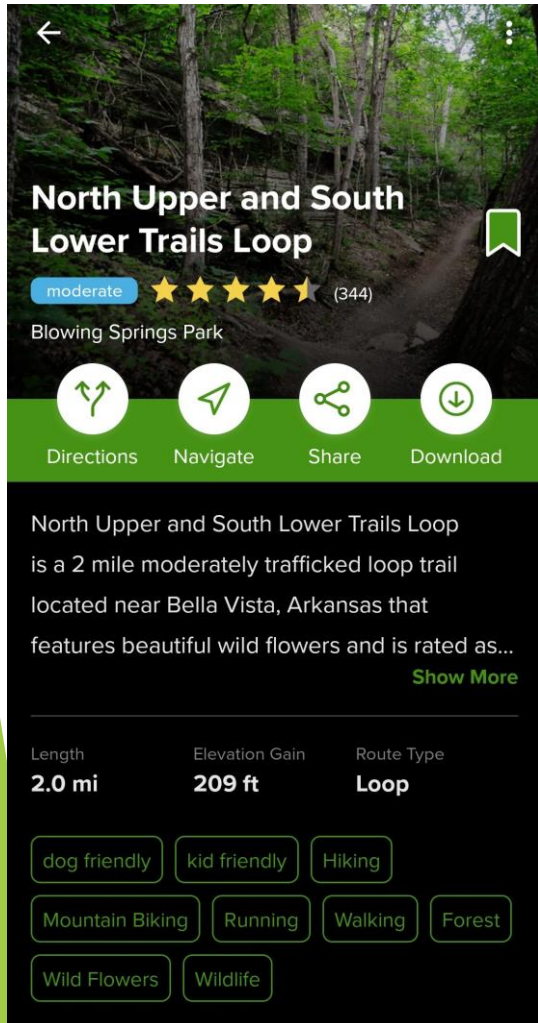


INATURALIST - COMMUNITY
SOURCE PLANT AND ANIMAL
IDENTIFICATION

Methodology

- ▶ Several hikes over 2 months
- ▶ Tested apps...

Alltrails



←

North Upper and South Lower Trails Loop

moderate ★★★★★ (344)

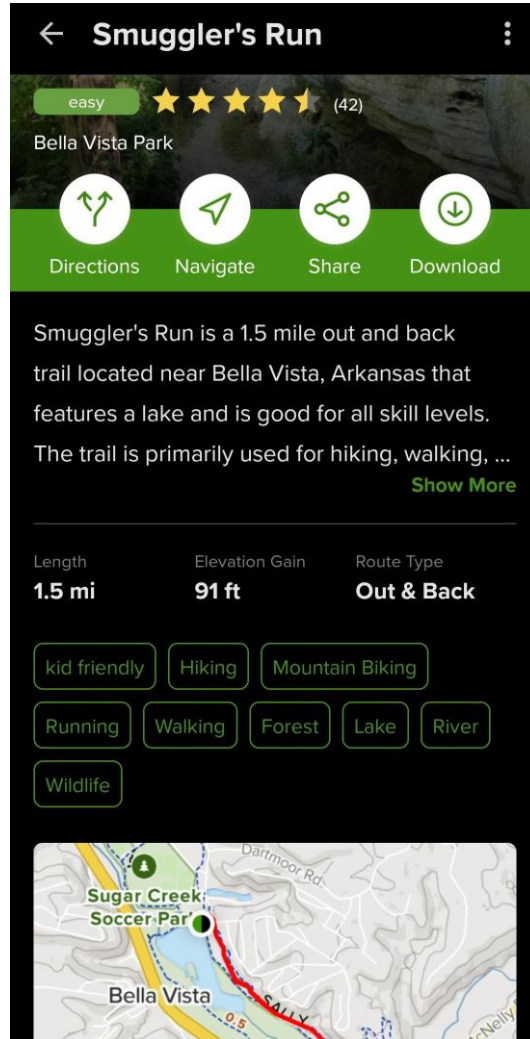
Blowing Springs Park

Directions Navigate Share Download

North Upper and South Lower Trails Loop is a 2 mile moderately trafficked loop trail located near Bella Vista, Arkansas that features beautiful wild flowers and is rated as... [Show More](#)

Length	Elevation Gain	Route Type
2.0 mi	209 ft	Loop

dog friendly kid friendly Hiking Mountain Biking Running Walking Forest Wild Flowers Wildlife



← Smuggler's Run

easy ★★★★★ (42)

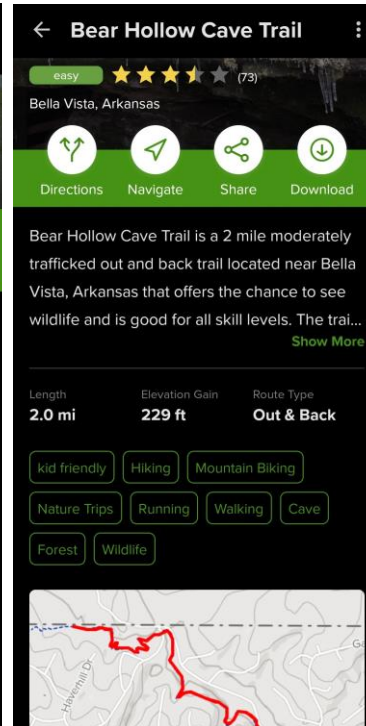
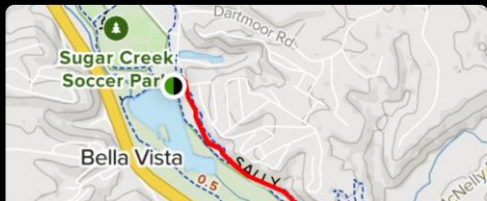
Bella Vista Park

Directions Navigate Share Download

Smuggler's Run is a 1.5 mile out and back trail located near Bella Vista, Arkansas that features a lake and is good for all skill levels. The trail is primarily used for hiking, walking, ... [Show More](#)

Length	Elevation Gain	Route Type
1.5 mi	91 ft	Out & Back

kid friendly Hiking Mountain Biking Running Walking Forest Lake River Wildlife



← Bear Hollow Cave Trail

easy ★★★★★ (73)

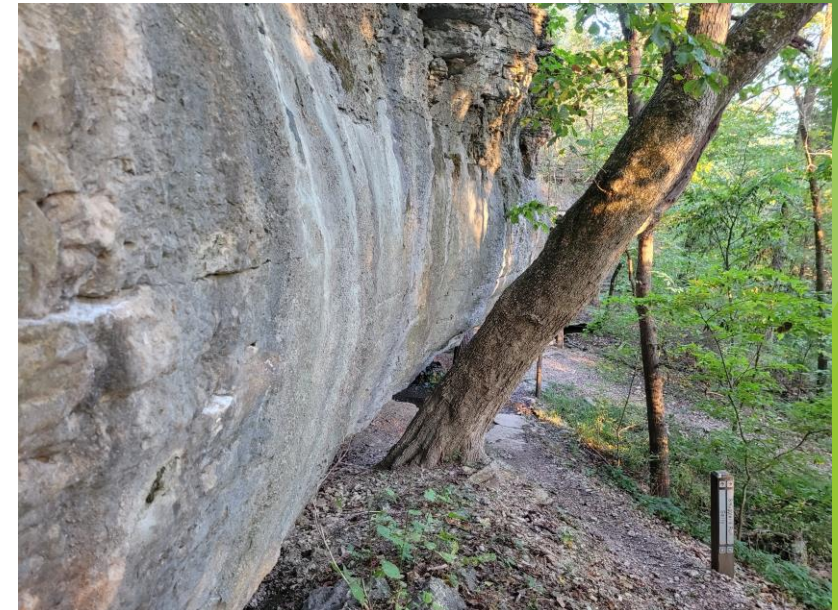
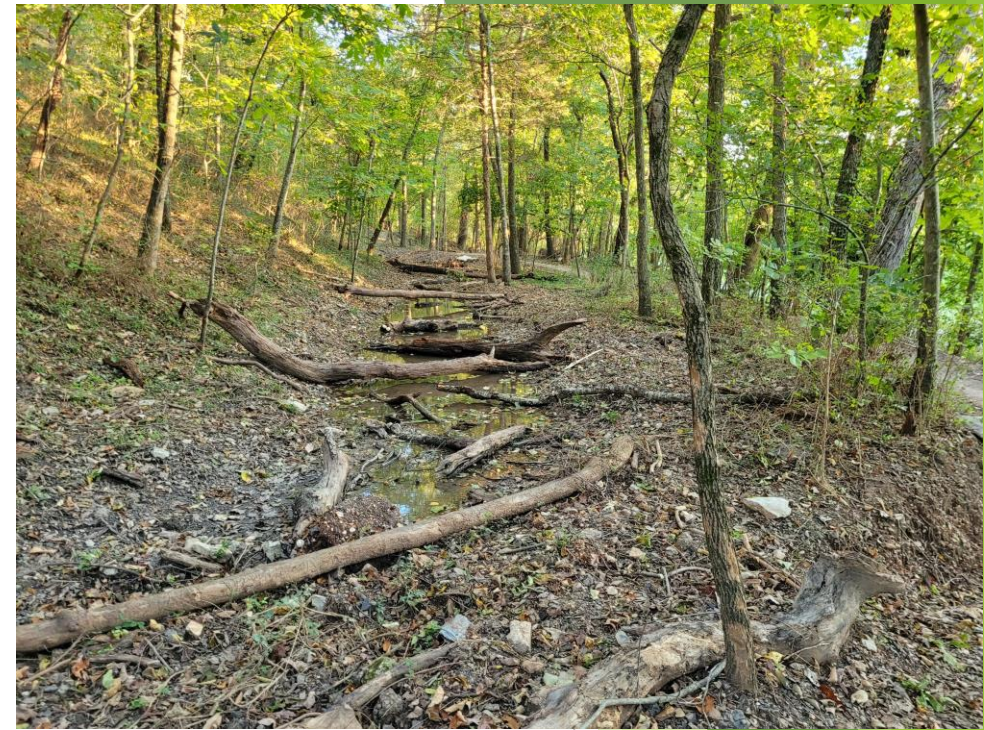
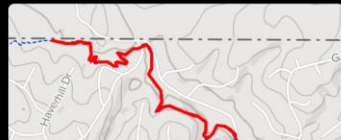
Bella Vista, Arkansas

Directions Navigate Share Download

Bear Hollow Cave Trail is a 2 mile moderately trafficked out and back trail located near Bella Vista, Arkansas that offers the chance to see wildlife and is good for all skill levels. The trail... [Show More](#)

Length	Elevation Gain	Route Type
2.0 mi	229 ft	Out & Back

kid friendly Hiking Mountain Biking Nature Trips Running Walking Cave Forest Wildlife



Rockcheck



ROCK KEY



YOUR ROCK IS:



LIMESTONE



On limestones typical landscape called karst evolves. Do you know how karst got its name?

 READ MORE



ENCYCLOPEDIA



LIMESTONE



DESCRIPTION

Limestone is a [chemical or biochemical sedimentary rock](#) mostly composed of [calcite minerals](#).

Pure limestone is white; however, because of different compounds, it can be grey, yellowish brown, yellow, red (iron compound) or black (organic matter). [Fossils](#) are often found in limestone. When limestone interacts with [dilute HCl acid](#), the reaction forms white bubbles and fizzing occurs. Thus, limestone can be easily identified and distinguished from dolomite (though they can look very similar).



FORMATION











iNaturalist



Exploring All My Locati... 🔍

3,321 OBSERVATIONS | 201 SPECIES | 405 OBSERVERS | 748 IDENTIFIER

Aves, Research Grade, Needs ID

	Great Blue Heron <i>Ardea herodias</i>	138
	Northern Cardinal <i>Cardinalis cardinalis</i>	136
	American Robin <i>Turdus migratorius</i>	131
	Red-shouldered Hawk <i>Buteo lineatus</i>	100
	Canada Goose <i>Branta canadensis</i>	86
	Carolina Wren <i>Thryothorus ludovicianus</i>	84
	Red-bellied Woodpecker <i>Melanerpes carolinus</i>	79
	Red-winged Blackbird <i>Agelaius phoeniceus</i>	67

← Great Blue Heron




Photo: (c) Dan Roach, some rights reserved (CC BY-NC)

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Great Blue Heron

Ardea herodias

The **great blue heron** (*Ardea herodias*) is a large wading bird in the heron family Ardeidae, common near the shores of open water and in wetlands over most of North America and Central America, as well as the Caribbean and the Galápagos Islands. It is a rare vagrant to coastal Spain, the Azores, and areas of far southern Europe. An all-white population found only in the Caribbean and Florida was once treated as a separate species... (Source: Wikipedia)



← Ringless Honey Mushroom



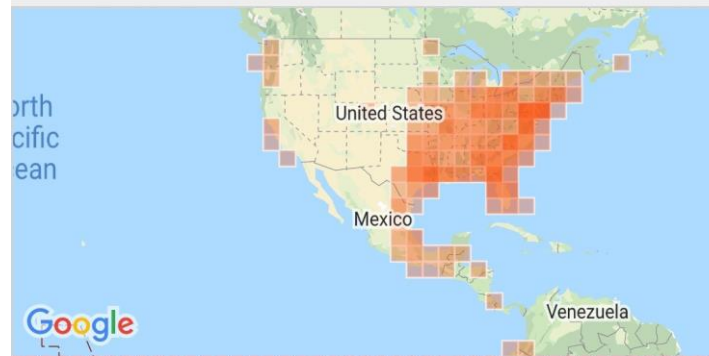
Photo: (c) Matthew Hammond, some rights reserved (CC BY-NC-SA)



Ringless Honey Mushroom

Desarmillaria caespitosa

Map of Observations



← Eastern Chipmunk



Photo: (c) Mike Leveille, einige Rechte vorbehalten (CC BY-NC-SA)



Eastern Chipmunk

Tamias striatus

The **eastern chipmunk** (*Tamias striatus*) is a chipmunk species found in eastern North America. It is the only living member of the chipmunk subgenus *Tamias*, sometimes recognised as a separate genus. The name "chipmunk" comes from the Ottawa word *ajidamoonh* or the Ojibwe word *ajidamoo*, which translates literally as "one who descends trees headlong." (Source: Wikipedia)

Making the lesson plan

▶ www.sharemylesson.com

- ▶ Summary
- ▶ Objectives
- ▶ Materials
- ▶ Activity

Nature Walks Lesson Plan

Harrison Brown

This is a variable lesson plan created with the intent to get students outside and enjoying nature and using tools to gain knowledge of their surroundings. This plan is kept minimal and open ended to be more applicable to an array of subjects or classes and to an array of students. In short, students will use the apps [Alltrails](#), [iNaturalist](#), and [Rockcheck](#) to identify plants, animals, insects, or rocks in the environment. This data can be looked at in class to satisfy whatever lesson the instructor chooses. This lesson plan is geared to be used as an outline to a class activity or individual project assignment.

Objectives:

- Learning objectives are largely up to the instructor, but should include getting students outside and learning about their environment

Materials:

- A phone or mobile device with internet connection

Activity:

- Students are to visit a trail or park either with the class or individually
 - [Alltrails](#) can be used to select a location. [Alltrails](#) lists trails by length, intended use, difficulty level, elevation change, and even foot traffic.
- Students will use apps to learn about their surrounding environment, like search for a specific rock, bug, plant, etc. at the instructor's discretion, or just see what they can find.
 - [iNaturalist](#) allows users to upload photos of found animals, bugs, or plants. The app is community driven, so anyone can see these images and identify the species of the subject. It also lists common plants and [animals](#) others have found in the area, even on specific trails.
 - [Rockcheck](#) is basically a mobile rock key and encyclopedia, with step-by-step instructions to identifying a rock and then a description of that rock.
- Class can reconvene to report what was observed and discuss findings to meet specific learning outcomes

Results

- ▶ https://sharemylesson.com/teaching-resource/nature-walks-lesson-plan-400276?sml_cf_id=400276&sml_cf_et=node&sml_cf_op=1&sml_cf_ts=1639006123
- ▶ Skills
 - ▶ Introduction to means of gaining knowledge
 - ▶ Identify rocks, plants, animals
 - ▶ Self dependency

References

- ▶ Alltrails
- ▶ iNaturalist
- ▶ Rock check
- ▶ www.sharemylesson.com