

Middle School: Technology and Wildlife Research

SIOUX COUNTY CONSERVATION BOARD

PRAIRIE WOODS NATURE CENTER

What students should

bring:

Sack lunch

Tennis shoes or hiking boots

Water bottle-reusable
(suggested)

Weather-appropriate clothing

What teachers should

bring:

First aid kit, Kleenex, hand sanitizer

One or more adult for every 6-10 students

Sunscreen/bug spray
(optional)

Contact for scheduling:
Assistant Director/
Environmental Education
Coordinator
Sunday Ford

Field trip leaders:
Sunday Ford
sundayf@siouxcounty.org
712/551-6780
Sarah Davelaar
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712/551-6715

Field Trip Overview

We are living in a world full of technology. But how do wildlife biologists use it? Through interactive activities and demonstrations, students will explore how/why the conservation world is embracing the tech side.

Suggested Field Trip Itinerary

9:00-9:30 Arrive/Introduction/Divide into Study Groups

9:30-10:15 Station Rotation #1

10:15-11:00 Station Rotation #2

11:00-11:45 Station Rotation #3

Possible stations: Motus Wildlife Tracking, Photo ID, Telemetry, Thermal Imagery Drone, Trail Camera Investigation

11:45-12:15 Lunch/Exhibit Viewing Opportunity

12:15-2:00/2:30 Trail Hike with morning station implications

2:00/2:30 Depart

** Weather may alter itinerary slightly*

Note to Teachers: Trail Camera Investigation is a two-part lesson. Part one is completed at the Prairie Woods Nature Center. Part two will be done in the classroom one/two weeks later. Teachers can choose how in depth they would like their student to be with part two. Naturalist can also be scheduled to make a classroom visit for part two of this program.

Iowa Core and NGSS met by this Field Trip

21.6-8.TL.3 Plan strategies utilizing digital tools to gather, evaluate, and use information.

Students will create a plan for the use of digital tools and resources to investigate real-world questions. They will evaluate resources in terms of their usefulness and validity for research.

Activity: Motus Wildlife Tracking, Photo ID and Trail Camera Investigation

Standards continued on back side.



Iowa Core and NGSS met by this Field Trip continued...

21.6-8.TL.4 Use critical thinking skills to conduct research, solve problems, and make informed decisions using appropriate technological tools and resources.

Students will learn how wildlife biologist identify real–world issues and analyze technological resources for developing and refining questions for investigation. They will see how wildlife biologist use technology to gather, analyze, and assess data and its effectiveness to design, develop and test possible solutions that assist students in making decisions. Then apply this in their own field investigation.

Activity: Photo Id, Telemetry, Thermal Imagery Drone* and Trail Camera Investigation)

MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

Through the case studies, students will discuss cause and effect of the bird’s migration patterns with text and visuals.

Activity: Motus Wildlife Tracking

* Indicates standard partially met

Note: this does not include the many standards met in the professionally designed exhibits, which were designed around Iowa Core and NGSS.

Group Sizes

In order to give each student the optimal opportunity to learn in our outdoor classroom, we try to keep our group numbers small. You can help us by putting your students into the appropriate number of groups prior to field trip (unless disused otherwise) and assigning a teacher/adult to be a leader of that group.

Rotation Stations Groups

≤ 15 students: Students will participate as one group and rotate through the stations with naturalist(s).

16-40 students: Students will be broken into two groups and rotate through stations with naturalist(s) and volunteer.

≥ 41 students: Students will be broken into three groups and rotate through stations with naturalist(s) and volunteer(s). (In some cases we may break it down into four groups depending on the field trip activities)

We suggest using Group # and/or Group Colors to pass this information onto your students/adults so they can easily remember.