DeKalb County School District

Fernbank Science Center

Title: Wildlife & Weather Field Study (2420)
Level: 4th Grade
Location: DeKalb County Park TBD
Type: Single Visit
Length: 75 Minutes
Limit: One Class per Session

Program Description

Ecology and biology meet weather and climate in this hands-on field study at a nearby DeKalb County Park. By measuring, observing, and recording several characteristics of the environment (temperature, humidity, wind, cloud type, fauna, flora), students will gain an understanding of the relationship between the physical aspects of an ecosystem and the organisms that have adapted to live there. Students will also observe and analyze the differences in physical characteristics of the ecosystem, habitats & microhabitats, and the fauna & flora that reside there.

Standards

S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.

a. Identify weather instruments and explain how each is used in gathering weather data and making forecasts.

S4L1. Students will describe the roles of organisms and flow of energy in an ecosystem.

c. Predict how changes in the environment would affect an ecosystem.

S4L2. Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors, and external features.

S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

a. Keep records of investigations & observations and do not alter the records later.
c. Offer reasons for findings and consider reasons suggested by others.

S4CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing safe laboratory procedures.

Vocabulary

ecosystem	adaptation	habitat	population	food web
humidity	thermometer	temperature	dew point	water vapor
psychrometer	cumulus	evaporation	condensation	

Pre-Visit Activities

Introduce students to the vocabulary above, and how to properly & accurately read thermometers. Introduce students to the concepts of a scientific notebook. Have students make observations of the ecosystem around their school and the weather.

Post-Visit Activity

As an expansion activity, students can explore their classroom or around their school to discover the different microhabitats. Then they can record observations and compare & contrast the microhabitats in their scientific notebooks.

Students can measure temperature at different locations around the school (parking lot, playground, inside, garden, wooded area) at the same time each day for a week. The data can

then be displayed, analyzed, and discussed. Have students offer hypotheses as to why there are or are not differences in temperature between the different locations and from day to day.

Additional Resources

http://www.srh.noaa.gov/jetstream/matrix.html

Notes

This program is taught outdoors. Students should wear comfortable, weather-appropriate clothes and comfortable walking shoes. Restrooms and drinking water may not be available, so have students bring water if they would like, and use the restroom prior to leaving school.

[SF, KW 8/2016]