Wild Weather

Image from naturenorth.com

Specific Learning Outcomes

5-4-01: Use appropriate vocabulary related to their investigations of weather.
5-4-02: Describe how weather conditions may affect the activities of human and other animals.
5-4-16: Differentiate between weather and climate.

General Learning Outcomes

5-0-1a: Formulate, with guidance, specific questions that lead to investigations.
5-0-2a: Access information using a variety of sources.
5-0-2c: Record information in own words and reference sources appropriately.
5-0-5a: Make observations that are relevant to a specific question.
5-0-7b: Base conclusions on evidence rather than pre-conceived ideas or hunches.
5-0-7f: Use prior knowledge and experiences selectively to make sense of new information in a variety of contexts.

Vocabulary

weather, climate, atmospheric conditions, wetland, wildlife, people, ectothermic, endothermic, torpor

Summary

Students are introduced to wetlands by exploring how weather may affect the daily activities of wetland animals.

Materials

- *Projector and computer to present slideshow*
- *Student access to a library and the internet*

Procedure

Warm Up

Begin with the provided slideshow presentation, which provides a brief overview of weather, wetlands, and discussion points, followed by examples of wetland animals and how they respond to certain kinds of weather conditions.

With each animal, have students first guess some ways the animal may respond to the particular weather conditions shown. When students are guessing, suggest for them to think about the different adaptations the animal has (physical and behavioural) and how this may influence the animal's response to the weather.

For example, if a student knows a snake is 'cold blooded' (or ectothermic, which means they rely on external heat source(s) to maintain their optimal body temperature) how may a snake react if it is very cold outside? The snake would need to find a heat source quickly to gain enough energy to begin moving.

Weather refers to the *current* atmospheric conditions in a specific place and time. It is created by various combinations of water, clouds, air/wind, and temperature.

Climate refers to the long-term weather trend of a particular region.

A wetland is an area of land that holds shallow water, with a maximum depth of two metres. The water makes the soil very moist, so plants who need moist soils will grow in and around the water; this is why a wetland can not be deeper than two metres. Otherwise these kinds of plants drown and do not receive enough sunlight. The water moves slowly because there are many plants that slow the water down, absorbing some of the water like a sponge and filtering it as it moves through.

Activity

At the end of the presentation, the 'Wild Weather' project is introduced. The objective of the project is for students to research one animal's responses to different kinds of weather, and to then present their results.

Students can pick any animal, and use various resources to learn about their chosen animal's responses to weather.

How you wish students to present their research is at your discretion. It could be a slideshow presentation, written report, poster, etc. whatever best suits your classroom and curriculum needs. It is recommended to agree on a minimum amount of weather conditions for students to research. For example, if the minimum types of weather is three, a student could present a Boreal Chorus Frog's responses to when its 1) raining, 2) hot & sunny, and 3) snowing.

Encourage students to list the sources they use in their form of presentation, such as website addresses, book and video titles.

Wrap Up

Wrap up the activity by students presenting their research findings in the form of your choice.

Optional: *Create a classroom Power Point where each student is responsible for completing a certain number of slides where they present their animal's responses to weather. Have the class then present the slideshow together, each student speaking to the section they developed.*

Conclude by explaining that as a class you will be visiting a wetland called Oak Hammock Marsh where students will be exposed to different living things that are found in a wetland, including the animals highlighted in the slideshow. Depending on the day's weather, students will also see first hand how wetland animals respond to the conditions.