Focus:

Identify a specific wetland with science "lens" of swamp, shallow open water, bog, fen or marsh based on an investigation of plant life, wildlife, soil conditions and water levels during a field trip to a local wetland. Identify the same wetland with the Aboriginal science "lens" of utility.

Curriculum Connection:

5.10-1 Recognize and describe one or more examples of wetland ecosystems found in the local area. (examples: Pond, slough, marsh, bog, muskeg, fen)

Educational Setting:

Field Trip to local wetland site

Teacher Preparation:

1. This session continues on the theme that there are different ways to classify wetlands. Western science classifies based on the function or the characteristics (how much water is there, and how much peat), while Aboriginal science classifies on the animals, birds, plants and their utility.

2. The first thing to do is to find a wetland to visit. There are two ways to choose a wetland to visit with the students.

» a. Find one yourself

» b. Ask an expert. A good resource is Ducks Unlimited http://www.ducks.ca/your-province/alberta/ or Alberta Environment www.environment.alberta.ca

On the Ducks Unlimited website, there is a link that directs you to wetlands in your own area.

3. Invite a local Elder or other Aboriginal person to accompany the class on the field trip. If they agree, it is proper protocol to offer a gift to them on behalf of the class.

Key Learnings:

» Specific types of wetlands identified based on soil conditions, water levels, types of plant life supported and present, and the types of wildlife that are supported by the specific wetland

» Observation and gathering of evidence is key in identifying specific types of wetlands

Materials and Resources Required:

» Plastic sheet protectors for each student (or zip lock bags will do)

» Wetlands Investigation Worksheet

» Rubber Boots

Did You Know :

Did you know that "muskeg" derived from the Cree term "maskek" meaning low lying marsh. This is also the root word for the term "maskikis" meaning medicine.

Examples of medicines or plants that are harvested include:

Muskrat Root
Mint tea
Labrador tea or maskikowapoy

Launch:

Remind the students of the Wetlands Identification PowerPoint presentation that was shown during the previous class.

Have students place their completed Wetlands Classification Worksheets from the previous class in a plastic sheet protector facing one direction with the new Wetlands Investigation Worksheet facing the other direction.

Place students in groups of 2-4 and tell the class that you are going out to a local wetland and that you want to learn more about how you can classify it. Let the students know that their mission is to identify as many ways as possible to classify this wetland. Encourage groups to keep their information within their own group until the class returns to the school so that results can be compared at that time.

Activate:

Upon arrival at the wetland site encourage students to separate from other groups and to document their evidence on the Wetlands Classification Worksheet. For the worksheet, students should each sketch their own diagram at the bottom of the page. In each of the "Characteristic Identification" sections of the worksheet students are to circle the characteristics that apply to the wetland that they are visiting. At the end of the investigation, once students believe that their group has examined each area in sufficient detail and sketched an accurate diagram, they should give a classification to it (e.g., in western science this may be known as a bog, in Aboriginal perspective, this may be known as a good place to gather goose eggs).

Connect:

Upon returning to the classroom each group will be asked to present their evidence from their Wetlands Classification Worksheet to the class.

Facilitate the discussion and guide the class to a consensus as to what type of wetland the class visited.

Classification of Wetland:

NAME: _____

Western Science

_____

Aboriginal Science

_____

Characteristic Identification: Circle the characteristics that are present in the wetland that you are investigating. Once you have gathered all of your evidence you can classify this wetland as a pond, slough, marsh, muskeg, bog or fen, as well as by the way it might be seen for Aboriginal science. When you know, print the name of the type of wetland in the title line above.

Wildlife

» Birds
» Frogs
» Fish
» Moose, deer, bison
» Beavers/muskrats

Plant life

» Trees
» Shrubs
» Grassy plants and weeds
» Labrador tea
» Black spruce
» Red moss
» Green moss
» Cattails

Harvestable species

» Evidence of animals (tracks)
» Sounds of birds or ducks
» Smell of the water (vegetation rotting or algae blooming)

Water Level

» Little to none
» Fed from ground water
» Water table is at ground level
» Water comes from snow and rain

Industry or farm nearby

» Gas lines
» Farm or farm animals nearby
» Suburbs or houses surrounding the area
» Concrete or buildings nearby

Diagram: