

Focus:

Examine western and Aboriginal worldviews on “living and non-living things” in wetlands ecosystems while recognizing that all plants and animals have an important role in a wetlands community as they interact with one another.

Curriculum Connection:

5.10-2 Understand that a wetland ecosystem involves interactions between living and non-living things, both in and around the water

5.10-5 Understand and appreciate that all animals and plants, not just the large ones, have an important role in a wetland community

Key Learnings:

- » In an Aboriginal worldview all components in nature are considered living things
- » In the Aboriginal worldview all elements of our surroundings and everything on Mother Earth has a spirit and contributes to our lives: we are all related

- » Plants and animals give us messages and teachings
- » Aboriginal worldview highlights respect for all living things, which includes everything on Mother Earth, from an Aboriginal perspective, leads to a healthy environment, including healthy wetlands

Teacher Preparation:**1. Living and Non-Living**

This is one of the most basic classifications in western science.

Western and Aboriginal science have different roots culturally and historically. Thus, western and Aboriginal scientists look at this classification quite differently.

An Aboriginal worldview sees spirit in all living and non-living things, so that rocks, water and soil all have spirit to them. Water is considered to be sacred, not only for what it does for the human body and environment, but because of this spirit. There is no distinction or boundary between living and non-living things. Water is seen as part of the cultural landscape, and inseparable from land, people, ancestors and social relations.

It is different in western science, where there is a boundary of living and non-living things. Living things contain cells, which allow them to breathe, grow, change, reproduce and adapt to their environment. Non-living things do not have cells. They cannot breathe, change, grow or adapt to their environment. Western scientists do not consider there to be a spirit in rocks, water and soil. Non-living things are generally regarded as not holding or having spirit, though they are seen as having value.

The big difference is in the view of the spirit of things. In Aboriginal science, all things have spirit, while in western science, living things may hold spirit, and non-living things are spirit-less.

This influences what scientists teach about water. This view of living and non-living things informs the relationship that people have to the natural world and to the observations they make about it.

In an Aboriginal worldview, people establish the connection to water, the sacred and to the spirits through ceremony. Ceremonies are used to build the connection of the Aboriginal knowledge seeker to the spirit world, and to ask permission to gain knowledge. Ceremony is also performed to take care of and protect, so that water is cleansed through ceremony with particular herbs.

In western science, people build their knowledge of water through study of the properties of it. They may study the chemistry (e.g., oxygen and hydrogen molecules), and the function and cycle of water in the environment.



2. Photocopy enough “The Tea of Life” Worksheets for each student in the class. Review the worksheet prior to teaching the class for ease of explanation to the students.

Note to Teacher :

It is important to communicate clearly to students that the sharing of Aboriginal worldviews, or any perspectives, is not intended to contradict the worldviews of other, but that all perspectives must be respected as valid.

This lesson plan has 2 parts. At the end of this lesson on this day communicate to the students that tomorrow you will continue the learning with a different worldview for them to consider.

Materials and Resources Required:

-  » "The Tea of Life" worksheet (Answer key included)
-  » Equipment required to view the film "The Tea of Life" with the students

DID YOU KNOW :

THAT WATER IS USED IN ALMOST EVERY CULTURE
TO WELCOME, BLESS AND CLEAN A
CHILD AFTER SHE OR HE IS BORN?
WATER IS SEEN AS VIEWED AS SACRED.

Launch:

Ask the students the question:

- » Who can give me some names of living and non-living things that we might find in a wetland?
- » When you name it tell me if I should write it down in the living or non-living category.

Draw a 2 column chart on the board with the titles "living" and "non-living" at the top. As the students call out examples record them in the appropriate column.

Indicate to the students that the class will now be viewing the first of 2 films on wetlands for this lesson. Remind students that science explains that in a wetland ecosystem, as in any ecosystem, there are interactions between living and non-living things.

Activate:

Distribute "The Tea of Life" worksheets to each student and read it over with the class prior to watching the DVD/ Online Video "The Tea of Life".

www.sacredrelationship.ca/students/tea

Explain to the students that the worksheet it to help them to focus on the main ideas of the film and that they should think watch for the information that will be required to complete the worksheet while they are viewing the film.



View "The Tea of Life" and have students complete the worksheet once the film is finished.

Students may work in partners to complete the worksheet so that they can discuss their thoughts on the questions before entering their responses.

Students should write down their own answers as they may not come to the same conclusion following their discussion.

Connect:

Once students have completed their worksheets bring the students back to one large group. Ask students to share their answers to each question.

Facilitate a discussion, in conjunction with the sharing of answers to each question, that will engage students in the consideration of Aboriginal regarding living and non-living things. Have students give examples of what might be different between the views and teachings of this Elder, Roy, from that which might come from a western scientist.

Using the information provided in the Teacher Preparation section, guide students to the understanding that for Aboriginal people everything in nature is living and everything has a spirit, including rocks and sticks and medicine.



The Tea of Life Worksheet

1. What types of birds do we see and hear in the film?

2. What is Roy (the man in the film) doing when he is making the strange sound?

3. What types of plants do we see and hear about in the film?

4. What is Roy making in the pot?

5. Why is he making it? (what is it used for?)

6. Who uses this medicine?

7. How does the water help the spruce trees?

8. What does Roy say the willows are doing? What message does he get from what he sees the willows doing?

The Tea of Life Worksheet

Answer Key

1. What types of birds do we see and hear in the film?

Loons and ducks

2. What is Roy (the man in the film) doing when he is making the strange sound?

Calling a moose. That means there must be moose in this type of wetland

3. What types of plants do we see and hear about in the film?

Grassy plants, shrubs, green moss, spruce trees, willows

4. What is Roy making in the pot?

Muskeg Tea. He boils muskeg water and some plants to make a nature tea which is a medicine.

5. Why is he making it? (what is it used for?)

He is boiling medicine, or making tea, to health the aches of the body and to make people well.

6. Who uses this medicine?

The Dene people use this medicine. All Aboriginal people make a similar medicine out of the plants that they know to be healing from their own area.

7. How does the water help the spruce trees?

The roots pick up the water and it travels to the needles to make them grow and to be healthy.

8. What does Roy say the willows are doing? What message does he get from what he sees the willows doing?

The willow is leaning into the hole and blessing the water so that it will make people well.

Note To Teacher

The answers can be expanded upon to lead to a discussion by prompting students to consider how the information presented in this film stands against the concept of differentiation between living and non-living things.

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Curriculum Connection:

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Key Learnings:

- » In an Aboriginal worldview all components in nature are considered living things
- » In the Aboriginal worldview all elements of our surroundings and everything on Mother Earth has a spirit and contributes to our lives: we are all related

- » There is interaction between organisms in, on, above and around wetlands.
- » Wetlands serve important purposes for water storage, wildlife habitat and supporting plant life.
- » Wetlands in Alberta are in need of protection policy.

Teacher Preparation:

1. Preview “Welcome to the Wetlands” DVD or online video (www.sacredrelationship.ca/students/suzanne), review and photocopy student worksheet, review answer key.

Launch:

Distribute the “Welcome to the Wetlands” worksheet and briefly review the worksheet as a class. Encourage students to record some of the information on their worksheets while they are viewing the DVD.



Watch “Welcome to the Wetlands” with the class. Give students time to complete their worksheets (individually or in pairs) once the DVD has finished playing.

Materials and Resources Required:

- » DVD: “Welcome to the Wetlands”



- » “Welcome to the Wetlands” worksheet and answer key

Activate:

Discuss answers as a class and have students share their responses and their views on the film following the viewing.

Guide the students to discuss the difference in how Suzanne, a western scientist, describes and interacts with the wetlands compared to Roy, a traditional scientist. The discussion will lead to the understanding that western scientists identify and describe living as organisms containing cells while non-living things do not. While Aboriginal people see all aspects of nature as living.

Connect:

In pairs, have students share their own views on how they would discriminate between living and non-living things in a wetland ecosystem.

Challenge students to discuss the concept of living and non-living things with family and

**DID YOU KNOW :**

SUZANNE HAS WORKED AS A SCIENTIST TO RECLAIM WETLANDS ALL OVER ALBERTA, ESPECIALLY IN THE OIL SANDS IN NORTHERN ALBERTA SINCE THE 1970S. SHE LOVES BEING IN RUBBER BOOTS AND RESTORING WETLANDS IN OUR PROVINCE!

Welcome to the Wetlands Worksheet

1. What plant and animal life do you observe or hear Suzanne talk about while watching the film?

In the water	Near the water	On top of the water	Above the water

2. What does Suzanne say is a really important part of the wetland?

3. What does Suzanne say is on the plants that she pulls out of the wetlands? What does she tell the little boy about why they are black? (What is happening to the plants?)

4. What are the 3 benefits (or purposes) of wetlands that Suzanne talks about?

5. Is there a wetlands policy in Alberta to protect the wetlands?

6. What percentage of the wetlands in southern Alberta has already been lost?

Welcome to the Wetlands Worksheet

1. What plant and animal life do you observe or hear Suzanne talk about while watching the film?

In the water	Near the water	On top of the water	Above the water
Grass Plant Frogs Duck weed Algae	Bird in a tree	Insects	Geese

2. What does Suzanne say is a really important part of the wetland?

The bottom of the wetland

3. What does Suzanne say is on the plants that she pulls out of the wetlands? What does she tell the little boy about why they are black? (What is happening to the plants?)

There are chemicals on the plants which has turned them black. The chemicals are rotting the plants.

4. What are the 3 benefits (or purposes) of wetlands that Suzanne talks about?

- Water storage (the water level in the wetlands can rise several metres and it will not flood anything in the area)
- Wildlife habitat (gives ducks, moose, geese, frogs, beavers, muskrat, etc a home)
- Contains thousands of microbes and bacteria that take up the nutrients and helps the plants

5. Is there a wetlands policy in Alberta to protect the wetlands?

No. There is no means of protecting wetlands in Alberta which Suzanne indicates is a disgrace to a wealthy and prosperous country. Wetlands can be destroyed by people at will.

6. What percentage of the wetlands in southern Alberta has already been lost?

70%