



Brightwater Site

Indigenous Knowledge in the Brightwater Ecology Program

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Current Indigenous Stories or Knowledge Shared:

Water Appreciation

The following story that was shared with me while working at FSIN in 2008:

I often tell the story near the composting toilet building on site, or as part of the introduction for grade 8 or High School Science 10 experiences at Brightwater.

There was once a man who lived in the forest of the North on his own in a little cabin. He lived with the rhythms of the seasons. This was in a time before there were modern homes like the ones we know. In time a little village grew near the forest where he lived. He had many friends and relatives that moved in to the village. As he aged many villagers approached him, inviting him to move in to a house in the village so that they could take care of him. He wanted to stay deep in the forest in his cabin. Until one day, while he was out on his trap line, he injured himself and was unable to do all the work on his own. He went to the villagers to accept their offer of lodging. They brought him to the house where he would live. They showed him the kitchen, where he would cook his food. They showed him the bedroom, where he would sleep. And they showed him the bathroom, where he would use the toilet. This man had never seen a modern flush toilet in his life. He looked at his hosts with disgust and angrily refused to use the bathroom. When he was well again he moved back to his cabin in the woods where he stayed for the rest of his days.

I open up the space for discussion, asking the students why this man reacted in this way. Why would he be so angry about the toilet? What does he see when he looks at the toilet? How do you think he values water? Is water biotic or abiotic? Would he use a bowl of water in ceremony? Where would he pee and poop?

This is followed by a quick discussion of our part in the nutrient cycle. About how we are using so much energy and chemicals to be able to pee and poop in a bowl of clean drinking water. Do we call it cow waste from cattle? We call it manure. Why do we call it human waste? (Because the nutrients are lost). A composting toilet system makes use of the

nutrients from our diets to grow more plants, keeping it away from the water system. How do we value water? If we view it as abiotic, could this be affecting our value system?

Biotic or Abiotic – Cultural perspectives on what is alive:

This is embedded throughout the program, no matter what grade or activity we are doing. We question the label of living or dead for soil, water, wood, and standing trees without leaves.

Soil – I pick up a pinch of soil (from a disturbed area) and ask all the students to do the same. I ask them if they think of the soil as biotic or abiotic. Then I ask them to guess how many living creatures are in the soil, (approximate answer is 5 billion microorganisms in approximately 1 tablespoon of soil). Then I ask them again, is soil living or dead? Most students reply that it is alive at that point. I share with them the indigenous belief of stones as living beings. The soil comes from the erosion and weathering of stone and the decomposition of living things which is only possible because of the tremendous living diversity in the soil. All of the bacteria, tardigrades, nematodes and fungi make up an enormously intricate ecosystem in the soil.

We look at the soil in our hands and discuss that less than 1% of bacteria in the world is harmful to humans. Most bacteria is essential for life, and some benefits us directly. There are 250 species of bacteria that are endemic or 'native' to our bodies, helping us to digest food and fight diseases.

There are species of bacteria that just help by making us happy. They live in healthy soil. When they come into contact with the chemical receptors on our hands they stimulate the release of serotonin (the happy hormone) in our brains. So children that play in the mud and gardeners are getting some great benefits...we need soil ... living, biotic soil.

Blue Grama Grass- Standing People Weather Forecasters

In the fall we stop to look closely at the blue grama grass. I was taught by a local elder that this plant could foretell the type of winter and would prepare by making more seeds if it was going to be a harsh winter and less if it was going to be a mild winter. If there are two or more seed heads (eyelashes) on the majority of the population then it is going to be a harsh winter. If most have one seed head; a mild winter would follow. I have watched this for years...and so far, from what we have observed, the students have predicted a mild or harsh winter season.

Then we explore the how's and why's, creatively coming up with stories that help us to connect with this amazing plant. The plant people are very wise and teach us many things...what else could they be teaching us? What plants grow a lot in the cities without being planted? Why? Do you think they have a message for us? We live in a toxic society. Dandelions, ironically, are excellent blood purifiers and they are used to cleanse the liver. Could they be offering us something that we are taking for granted?

Nurse logs and Snags – A tree is always alive even after the leaves fall for the last time.

As we hike we will see standing and laying trees that no longer produce oxygen. In science these would be considered 'dead' or 'abiotic'. Indigenous cultures see deeply into the life that is happening in the log or snag that has created habitat for fungi, bacteria, insects, arachnids, birds, snakes, small mammals and more. Wood can make fire. Fire is considered alive, with spirit. Trees are considered alive, with spirit.

I don't feel that I have the authority to speak any deeper than this with the students. And so this is what I have contributed to the programs that I lead.

