



Watershed Memories

LESSON

GRADE LEVEL 6-9

CATEGORY Water, Wetlands
& Watersheds

TOPIC Watersheds

TIME

One 30 to 60 minute period, and one to two additional 60 minute periods.

MATERIALS

Notebook, pencils, video or digital recorder (optional)

SETTING

Classroom

GROUP SIZE

Individually, in pairs or as a class

SKILLS

Analysis, observation, communication, research, role-play, questioning

SUBJECTS

Science, social studies, language arts

Overview

Students will be able to:

- gather and record information about the historical human use of a watershed.
- be able to define renewable and non-renewable resources
- recognize how a watershed's history affects its present day resources
- demonstrate awareness of Aboriginal place names
- demonstrate awareness of the Aboriginal concept of respect for the environment

Method

Students talk to an elder in their community about their memories of a local watershed area, or research and role-play talking to an elder.

Background

Many cultures treat their elders with respect and caring. Most Aboriginal cultures share this trait. In the past, Aboriginal cultures were exclusively oral and it was the elders who held the cultural knowledge of the ancestors and passed it on in storytelling and instruction to younger generations. In all cultures, younger generations have much to learn from the past and those who have lived it.

Often in resource-use planning, humans take a short-term view of the world. Understanding the history of a watershed can encourage people to think about it in the long term. Natural resources can be considered either renewable or non-renewable. A renewable natural resource is one that is capable of infinite renewal, using a human time scale, if environmental, social, and political factors are taken into consideration. Examples of renewable resources can include: solar energy, wind power, and biological resources such as forestry, fisheries, and wild food harvesting. A non-renewable resource is one in which the resource is finite and each use reduces the total amount available for use. Examples of non-renewable resources include coal, oil, gas, and mineral deposits. A biological resource can be non-renewable if over-harvested or used in such a way by not replacing what is taken or used and thus the population decreases over time.

Supply of resources and demand on those resources can impact the sustainability of the ecosystem on which that resource relies. Sustainability is the ability of an ecosystem to maintain ecological processes and functions, biodiversity, and productivity over time. The concept of sustainability also touches on how humans interact with nature. Sustainability has also been defined as living comfortably and peacefully with each other within the biophysical limits of the natural world. It can be simply put that it is in human interest to sustain the environment to ensure survival. The wisdom of senior citizens or elders in our society can inform younger generations to take a longer more considered view of the world.

Before beginning this activity, read the backgrounds for activities 3 and 4 for information on locating and defining your local watershed. Also, try typing the name of your community and 'watershed' into a search engine window and see what comes up. Most organizations have websites and many provide useful resources for teachers and schools.

Procedure

For younger students

You can adapt this activity by having someone you choose to come into the classroom and talk to the children about their memories of your particular watershed. If you have difficulty finding someone to interview, consider an organization that serves seniors, a senior's centre, community centre, for people who would be willing to take time to talk with your students. Alternatively, ask other staff members, local seniors or volunteer organizations, such as Rotary, who may be able to identify a speaker for your class. Be sure to speak to your guest before hand about what they intend to talk about before the presentation. Having a few questions on hand in case they require some guidance is also a good idea. See the "Activity 1 Worksheet" and the remaining Procedure section for more assistance with questions.

For grades 6 to 9, this activity has three options depending on what will work best with your class:

Option A: Interview an elder of any cultural background who grew up in your watershed.

Option B: Interview an Aboriginal elder who grew up in your watershed and is from the cultural group that is indigenous to your watershed.

Option C: Research your watershed and prepare a role-play of an elder's watershed memories in response to an interviewer.

Part 1

1. Set the stage for students by reading the following:

A Watershed History

Well you know, the deer around here were very thick. You could go out and get one at any time. And so were the grouse. I had a reputation of getting the biggest deer ever shot in the province. It was in the fall of 1891. It weighed 195 pounds [88kg], but it wasn't the biggest one I ever shot. The biggest was 225 pounds [102 kg]. We used to hunt through thick forests of cedar and Douglas-fir trees. Boy, those trees were big! It would take us some four men to cut one of those beauts down. We used the springboard notch and a hand saw – imagine that now! Yes, we cleared that land of forest to make our homestead. Planted things like Golden wax beans and Burbank potatoes, Yellow Bellflower apples and Damson Plums. What we didn't farm, we got from the land around us – deer, grouse, wild mushrooms. One year, around 1900 we had a wet, wet spring and we had a flood that broke the dam my father built on Stewart's Creek. Sent water and logs and rocks everywhere. We were sure lucky that no one was hurt. We just had to re-build the dam. That dam was needed to send water on down to the homestead. About that time more settlers came to live here too. I met and married my wife about then, I reckon.

Things sure have changed though. Nobody homesteads anymore. They buy all they need from town. The forests were just about all cut down to make room for farms or to use the timber. Now, I see young forests everywhere. Alder, hemlock, oh sure, some cedar and Doug-Fir too. There are some giant trees left though – in my secret place in the bush. No, don't ask. But they are there to remind us of the past.

2. Have students imagine this watershed. What did it look like in the past, what do they think it looks like now?
3. Find out what students know about their watershed's resources today: brainstorm to create a list of all resources that might be a part of the watershed.
4. Introduce the concepts of renewable and non-renewable resources (see Background). Sort the watershed's resources into these categories – include ideas that may need more information to decide which category it fits into.



Part 2

Option A: Interview an elder of any cultural background who grew up in your watershed.

1. Individually or in pairs, students prepare questions to ask their interview subject. Students should include questions about natural resources, renewable and non-renewable. See the "Activity 1 Worksheet" for additional information.
2. Once prepared, students interview an Elder friend, neighbour or family member about their memories growing up in your local watershed. Students demonstrate excellent listening skills and audience etiquette for the interview subject. If possible, students video tape or digitally record the interview.

Option B: Interview an Aboriginal elder who grew up in your watershed and is from the cultural group that is indigenous to your watershed.

1. If students have familial or personal connections to the local Aboriginal community follow the steps of Option A. for students to work individually or in pairs to interview an Aboriginal Elder.

If you or the students are not from a local Aboriginal family or have no personal connection to the local Aboriginal community, you can take the first step. Contact your school district's Aboriginal Education Coordinator or resource teacher. This is a good place to start for information on how to draw on the local Aboriginal community for knowledge and assistance with class work. An excellent written resource for Aboriginal studies in general is: **Shared Learnings, Integrating BC Aboriginal Content K-10**, BC Ministry of Education. You can order the book or view this resource on-line at: <http://www.bced.gov.bc.ca/abed/shared.pdf>.

Once you have found an Aboriginal elder in your community, ask if they would be willing to come speak to your class about their memories of what your watershed looked like in their youth (if applicable, ask permission to video tape them). They may come prepared with something to say or they may prefer to respond to student questions.

2. Students construct questions based on discussions from Part I. Students should include questions about natural resources, renewable and non-renewable. See the "Activity 1 Worksheet" for additional information. Aspects of Aboriginal culture related to their watershed that students may want to ask the guest speaker about:

- Aboriginal place names for local water bodies and landmarks
 - places of spiritual significance in the watershed (if your guest is willing to share this sensitive information)
 - places where people traditionally collected or hunted for resources such as fish, mammals, birds, drinking water, plants for eating or medicine
 - stories or beliefs from their culture about the local watershed where you live.
3. Students demonstrate excellent listening skills and audience etiquette for the guest speaker or interview subject.

Option C: Research your watershed and prepare a role-play of an elder's watershed memories in response to an interviewer.

1. Students research the history of the area of their watershed. They can investigate Aboriginal experience of the place, early settlements and significant local events, natural resources and population growth and pressures on resources. For resources they can use libraries (Some public libraries have a local history section) Internet resources, local history groups, and museums.
2. In pairs, students role-play an interview based on their research in front of the class. One student pretends to be the interviewer, the other the Elder. They write their own questions and craft the answers based on their research. Students should include questions about natural resources, renewable and non-renewable. It is up to them how much they want to plan the interview, but it should look as real as possible. Perhaps the interviewer does not reveal her questions to the elder beforehand and they must respond based on what they have learned during the research. They can also use the "Activity 1 Worksheet" for help.

Note for all three activity options:

If you are able to videotape the guest speaker, and or interviews (real or role-played), it is fun to save the viewing of these for one day later in the year. Pop some popcorn, arrange some comfy seats, turn down the lights and enjoy with your students their past hard work. Showing the videos later in the year allows students to review what they have learned, gain new insights since they've thought about the material and laugh at how hair styles and bodies of themselves and their peers have changed.

Assessment

For this activity, consider using the Performance Standards from the BC IRP's for English. The rubric for Writing to Communicate Ideas and Information will readily apply to interview-style writing or can be adapted to a specific use. You can find the rubrics at:

www.bced.gov.bc.ca/perf_stands/writing.htm

Extensions

- Students can thank the guest speaker in the local Aboriginal language. Ask the district Aboriginal Education Coordinator for help when researching this.
- As a class, compare old and new local maps and aerial photographs of your watershed.
- Have students create a poster, with images, that identifies any watershed conservation issues that they have discovered through this activity.

