Lesson 7

Water Treatment

Introduction

Water is such an important part of our daily life that we hardly even think about it! We just turn on the tap to get a glass of water or wash our hands. In this lesson we will investigate how our water is cleaned before it arrives in our houses.

Surface water (rivers, creeks, lakes) has many living organisms in it, like viruses, bacteria and parasites that can make us sick if we drink it, so it's really important to treat our water first.

Knowing more about your drinking source watershed is important because land activities such as houses, industry, agriculture and forestry can affect how clean (quality) and how much (quantity) water is available for us to use at home, for business and for agriculture.

In this lesson, we will learn about your drinking source watershed and how water is cleaned before arriving in your tap.

Time: 20-40 minutes

Materials: Internet, blank paper, pencil, ruler

Instructions

Every community has a different source of drinking water, and therefore different methods of treating their water. Do up a detailed, labelled diagram to document your headwaters and the steps for treating drinking water in your community. If you live outside of municipal boundaries and/or are on well water, research the water treatment for the community you go to school in.

Your diagram should include titles, images to represent each step of the process, and descriptions of what each treatment step does, eg. chlorine is added to ensure water remains clean while flowing through distribution pipes.

Hint: start by searching your Regional District's website (listed below), or the website of your community to find the necessary information.



Summary

Now you know where your drinking water comes from and you also know how water is cleaned before arriving at your house. Next, head over to Water Treatment: Effluent (Lesson 8) to learn about how our dirty household water, or effluent, is treated before going back in our rivers.

Extensions

- 1. How much water does your community store? Where does this occur?
- 2. Does your community always have enough water for peak demand? Do you ever have water restrictions in your community? If so, what is the reason for these water restrictions?
- 3. How do you treat your water when camping/hiking/hunting?









Water Treatment continued

Resources

- Community Flyover
- If you live in a larger community or city in the Columbia Basin, check your municipality's website for water systems information.
- If you live in a smaller community or rural area, check your Regional District website:
- RDCK water systems
- RDEK water systems
- CSRD water systems
- RDKB water systems

Watch these videos show water treatment facilities and processes. This information comes from larger city systems, and shows a lot of detail. In many communities here in the Columbia Basin, our water systems do not need to have all of these steps.

- Drinking Water Treatment Plant
- How Do Water Treatment Plants Work
- Click here for some general information about water treatment plants.







