

Activity 7: Watershed Web Search



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Overview

In this activity, participants carry out an Internet investigation of their local watershed. They deepen their understanding of watersheds as they learn how the watershed connects the people and salmon living there. To show what they learn, participants create a pamphlet that answers questions about the local watershed.

Background Information

For information about watersheds, see the [Background Information in the Unit Overview](#) and links on the “Watershed Web Search” participant worksheet.

Objectives

Participants will: (1) conduct an Internet search to learn about their local watershed, (2) learn how people’s actions affect the water in the watershed, (3) find out who is working to protect the local watershed and the salmon and/or steelhead in it, and (4) create a pamphlet that defines what a watershed is and explains how people’s everyday actions in the watershed affect the salmon and/or steelhead that live or could live in the creek.

Time

Activity: Two to four group sessions

Materials

- Access to Internet
- Notebooks or writing paper (for taking notes)
- Sample pamphlets (optional)*
- Drawing paper for each person
- Colored pencils or pens for each person
- Glue sticks
- Scissors
- [“Watershed Web Search”](#) worksheet (copies optional)
- Copies of Rubric for Watershed Pamphlets (optional)

* = Included in Adopt-A-Watershed Kit

Advance Preparation

1. Plan your schedule so that each participant can spend one to three group sessions on the web search and another group session making the pamphlet.
2. Arrange computer lab time as necessary.
3. Read over the “Watershed Web Search” worksheet to familiarize yourself with the participant task.
4. (Optional) Make copies of the “Watershed Web Search” worksheet for each participant.
5. Decide whether you want participants to create their pamphlets for a specific audience (such as other participants, parents, or community members).
6. (Optional) If you will be using it, make copies of the Rubric for Watershed Pamphlets.

Setting the Stage

1. Remind participants of the crumpled paper watershed models they made in [Activity 6: Defining Our Watershed](#). Ask them to list human activities in the watershed that could affect the water. If necessary, you might have them start by thinking about what was represented by each of the different colored inks in the model, and how these things affect the water. (The blue ink represented water, the brown ink represented soil, and the red ink represented pollutants such as lawn chemicals or dog feces.)
2. Explain to participants they will do a web search to learn more about their local watershed and how people’s actions could affect the water in the watershed. Describe how participants will look at a number of different web sites to find answers to questions about their watershed, take notes on the answers, and then use their notes to create a pamphlet.
3. If possible, show participants a few sample pamphlets to give them an idea about what they will be making.

Conducting the Activity

1. As a group, read over copies of the “Watershed Web Search” worksheet, or have participants look at them on their computers. Make sure that they understand their task.
2. If you will be using it, give participants copies of the Rubric for Watershed Pamphlets. Read it over together and answer any questions they might have about the criteria.
3. Get participants set up on the computers to do their web search.

4. As participants work, circulate among them and help them focus on the information they need to answer the questions. Encourage them to answer the questions as completely as possible and to take notes in their own words.
5. Many of the web sites have links to other sites with relevant information. As time allows, you may want to encourage participants to expand their search to explore related topics dealing with their local watershed.
6. When participants have finished answering the questions, have them begin making their pamphlets. Give them drawing paper, colored pens, and access to glue sticks and scissors; or have them use Print Shop or other layout software to create the pamphlet.
7. Participants may use a “Q & A” format for their pamphlet, listing the questions they researched along with their answers. If you have identified a specific audience for the pamphlets (see [Advance Preparation](#)), suggest that they keep that audience in mind when writing the pamphlets so that it meets that audience’s reading level and other needs.

Wrap-Up

1. Have participants share their pamphlets with others in the group. If possible, arrange for them to share their pamphlets with their intended audience.
2. Have participants place their pamphlets in their team portfolios.

Assessment

Use the rubric provided to assess, or have participants self-assess, their pamphlets.

Rubric for Watershed Pamphlets

	Excellent	Acceptable	Unsatisfactory
Content	<ul style="list-style-type: none">• The pamphlet included all of the required content (answers to all five questions, at least one map, and at least one photo or illustration).• The information was well organized and well written.	<ul style="list-style-type: none">• The pamphlet included most of the required content (answers to five questions, a map, and a photo or illustration).• The information was organized and well written.	<ul style="list-style-type: none">• Some or all of the required content was missing.• The information was not organized or was not well written.
Grammar/ Mechanics	<ul style="list-style-type: none">• No errors.	<ul style="list-style-type: none">• Contained only minor errors that did not interfere with understanding of the information.	<ul style="list-style-type: none">• Contained significant errors that interfered with understanding of the information.
Appearance	<ul style="list-style-type: none">• The pamphlet design was unique and creative, with much attention to detail.	<ul style="list-style-type: none">• The pamphlet design was neat in appearance and well designed.	<ul style="list-style-type: none">• The pamphlet did not appear neat or carefully designed.

Watershed Web Search Worksheet

Introduction

People and salmon and steelhead share watersheds. By studying watersheds, you will learn:

- How people affect the water and fish in your watershed – even if they don't get near the creek or lake.
- Who in your community is working to protect the watershed and salmon and steelhead.

The Task

Your job in this web search is to learn about your community's watershed and how the watershed connects people to salmon and steelhead. As you conduct your search, you will answer a set of questions. Then, to show what you have learned, you will create a pamphlet that tells people in your community how their everyday actions affect the salmon and steelhead in your watershed.

The Process

1. Read over the following questions. You will be looking for answers to these questions as you visit the different web sites below. Take notes so that you can write answers to these five questions for your pamphlet.
 - What is a watershed?
 - What watershed do we live in?
 - How do people affect the water and fish in our watershed?
 - How can we help to keep our water clean and safe for people and animals?
 - What groups in our community are working to protect our watershed?
2. Use the web sites below to conduct your search. You will need to visit several different web sites to answer these questions. Take notes in your own words.
3. Use your notes on these questions to create a pamphlet about your local watershed and how people's actions in the watershed affect salmon and steelhead. Your pamphlet should include:
 - A title
 - Answers to the five questions
 - One or more maps of your community or watershed
 - At least one other photo or illustration

Resources

Look at these web sites to help you answer the questions about your local watershed.

What a watershed is	<p>Visit the Conservation Technology Information Center at Purdue University (http://www.ctic.purdue.edu/KYW/glossary/whatisaws.html). Read the definition of a watershed and watch the <i>What Is a Watershed?</i> video.</p> <p>Read and learn about the different components of a watershed on this website (http://wrc.iewatershed.com/index.php?pagename=AboutWatersheds). It focuses on Chesapeake Bay, but the concepts apply to any watershed.</p> <p>What is a Watershed? Take a look at this definition, drawing, and quote by John Wesley Powell to help you understand what a watershed is (http://www.epa.gov/win/what.html).</p>
What watershed we live in	<p>Using the National Atlas of the United States of America (http://www.nationalatlas.gov), you can make a custom map of any area in the United States. Click on Map Maker and keep clicking on your area of the map to narrow the scope. Click on the “Water” button and you will be able to add to your map watershed boundaries, major bodies of water, dams, and stream monitoring stations in your area.</p> <p>Using the California Water Quality Standards Inventory Database (http://www.ice.ucdavis.edu/wqsid/wqodbase.htm), find a map of your local watershed. You can search by the name of your county or by the name of your local creek or river.</p>
How people affect water and fish in our watershed	<p>Watch the <i>Everyone Impacts a Watershed</i> video at the Conservation Technology Information Center (http://www.ctic.purdue.edu/KYW/glossary/whatisaws.html).</p> <p>Play a Watershed Game to see the results of decisions you make concerning watersheds and national parks, agriculture, neighborhoods, and cities (http://www.bellmuseum.org/distancelearning/watershed/watershed2.html).</p> <p>Answer the question, “What’s Wrong With This Picture?” (http://www.epa.gov/owow/nps/kids/) to learn how different things people do in the watershed can hurt water and fish.</p>
What we can do to help keep water clean and safe	<p>Read about six things that you can do yourself, and encourage others to do, to help keep water clean and safe (http://www.tvakids.com/environment/cleanwater.htm).</p>
Groups working to protect watersheds	<p>Use the Locate Your Watershed – Watershed Information Network (http://cfpub.epa.gov/surf/locate/index.cfm) to find information about your local watershed, like who is working on watershed issues. Type in your local zip code, stream name, or city name to “locate your watershed.”</p>

Watershed Web Search Worksheet

Búsqueda en la red de cuenca

Introduction / Introducción

People and salmon and steelhead share watersheds. By studying watersheds, you will learn:

- How people affect the water and fish in your watershed – even if they don't get near the creek or lake.
- Who in your community is working to protect the watershed and salmon and steelhead.

Las personas, el salmón y la trucha del mar (el steelhead) comparten las mismas cuencas.

Estudiando las cuencas, usted aprenderá

- *Cómo las personas afectan el agua y los peces en las cuencas – aunque no se acerquen al riachuelo ni al lago.*
- *Quién en su comunidad trabaja para proteger la cuenca, el salmón y la trucha del mar.*

The Task / El Propósito

Your job in this web search is to learn about your community's watershed and how the watershed connects people to salmon and steelhead. As you conduct your search, you will answer a set of questions. Then, to show what you have learned, you will create a pamphlet that tells people in your community how their everyday actions affect the salmon and steelhead in your watershed.

Su trabajo en esta búsqueda en la red es aprender de la cuenca de su comunidad y cómo la cuenca conecta las personas al salmón y la trucha del mar. Cuando usted realiza su búsqueda, usted contestará un conjunto de preguntas. Entonces, para mostrar lo que usted ha aprendido, usted creará un folleto que les dirá a personas en su comunidad cómo sus acciones diarias afectan el salmón y la trucha del mar en la cuenca.

The Process / El Proceso

4. Read over the following questions. You will be looking for answers to these questions as you visit the different web sites below. Take notes so that you can write answers to these five questions for your pamphlet.

Lea las preguntas que siguen. Usted buscará las respuestas a estas preguntas mientras visita las páginas de la red. Tome notas para que usted pueda escribir las respuestas a estas cinco preguntas para su folleto.

- What is a watershed? / *¿Que es una cuenca?*
- What watershed do we live in? / *¿En que cuenca vivimos?*
- How do people affect the water and fish in our watershed? / *¿Cómo es que la gente afecta el agua y los peces en la cuenca?*
- How can we help to keep our water clean and safe for people and animals? / *¿Cómo podemos ayudarnos a mantener el agua limpia para las personas y los animales?*
- What groups in our community are working to protect our watershed? / *¿Qué grupos en nuestra comunidad trabajan para proteger la cuenca?*

5. Use the web sites below to conduct your search. You will need to visit several different web sites to answer these questions. Take notes in your own words.

Usa las páginas de la red que siguen para conducir su búsqueda. Tendrás que visitar varias páginas para responder a las preguntas. Tome notas en sus propias palabras.

6. Use your notes on these questions to create a pamphlet about your local watershed and how people's actions in the watershed affect salmon and steelhead. Your pamphlet should include:

Use sus notas en estas preguntas para crear un folleto de su cuenca local y cómo nuestras acciones en la cuenca afectan al salmón y a la trucha del mar. Su folleto deberá incluir:

- A title / *Un título*
- Answers to the five questions / *Respuestas a las cinco preguntas*
- One or more maps of your community or watershed / *Uno o más mapas de su comunidad o de la cuenca*
- At least one other photo or illustration / *Por lo menos una otra foto o ilustración*

Resources / Recursos

Look at these web sites to help you answer the questions about your local watershed.

Mire estos sitios de la red para contestar las preguntas sobre su cuenca local.

<p>What is a watershed / <i>Que es una cuenca</i></p>	<p>Visit the Conservation Technology Information Center at Purdue University (http://www.ctic.purdue.edu/KYW/glossary/whatisaws.html). Read the definition of a watershed and watch the <i>What Is a Watershed?</i> video. <i>Visita el Conservation Technology Information Center at Purdue University [Centro de información de tecnología de conservación]. Lea la definición de la cuenca y mire el video What Is a Watershed? [¿Que es una cuenca?]</i></p> <p>Read and learn about the different components of a watershed on this website (http://wrc.iewatershed.com/index.php?pagename=AboutWatersheds). It focuses on Chesapeake Bay, but the concepts apply to any watershed. <i>Lea y aprenda de los componentes diferentes de una cuenca en este sitio. Se enfoca en la Bahía Chesapeake, pero los conceptos se pueden aplicar a cualquiera cuenca.</i></p> <p>What is a Watershed? Take a look at this definition, drawing, and quote by John Wesley Powell to help you understand what a watershed is (http://www.epa.gov/win/what.html). <i>¿Qué es una cuenca? Mire esta definición, dibujo y cita hechos por John Wesley Powell para entender lo que es una cuenca.</i></p>
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<p>What watershed we live in / <i>En que cuenca vivimos</i></p>	<p>Using the National Atlas of the United States of America (http://www.nationalatlas.gov), you can make a custom map of any area in the United States. Click on Map Maker and keep clicking on your area of the map to narrow the scope. Click on the “Water” button and you will be able to add to your map watershed boundaries, major bodies of water, dams, and stream monitoring stations in your area.</p> <p><i>Usando el National Atlas of the United States of America [Atlas nacional de los Estados Unidos], puede hacer un mapa de cualquier área de los Estados Unidos. Presione en Map Maker y continúe presionando en su área del mapa para estrechar el alcance. Presione el “Water” botón y será capaz de añadir fronteras a la cuenca, las masas de agua, los diques, y los sitios para vigilancia del riachuelo.</i></p> <p>Using the California Water Quality Standards Inventory Database (http://www.ice.ucdavis.edu/wgsid/wqodbase.htm), find a map of your local watershed. You can search by the name of your county or by the name of your local creek or river.</p> <p><i>Usando el California Water Quality Standards Inventory Database [Base de datos estándares de la calidad del agua de California], encuentre un mapa de su cuenca local. Usted puede buscar por el nombre de su condado o por el nombre de su riachuelo o río local.</i></p>
<p>How people affect water and fish in our watershed / <i>Como las personas afectan el agua y los peces en nuestra cuenca</i></p>	<p>Watch the <i>Everyone Impacts a Watershed</i> video at the Conservation Technology Information Center (http://www.ctic.purdue.edu/KYW/glossary/whatisaws.html). <i>Mire el video Everyone Impacts a Watershed [Todos afectamos la cuenca] en el Conservation Technology Information Center [Centro de información de tecnología de conservación].</i></p> <p>Play a Watershed Game to see the results of decisions you make concerning watersheds and national parks, agriculture, neighborhoods, and cities (http://www.bellmuseum.org/distancelearning/watershed/watershed2.html). <i>Juegue un Watershed Game (Juego de cuenca) para ver los resultados de las decisiones que usted hace con respecto a la cuenca, parques nacionales, agricultura, vecindarios, y ciudades.</i></p> <p>Answer the question, “What’s Wrong With This Picture?” (http://www.epa.gov/owow/nps/kids/) to learn how different things people do in the watershed can hurt water and fish. <i>Conteste la pregunta, “What’s Wrong With This Picture?” [¿Que tiene de raro la foto?] para aprender las cosas que las personas hacen que dañan el agua y los peces.</i></p>
<p>What we can do to help keep water clean and</p>	<p>Read about six things that you can do yourself, and encourage others to do, to help keep water clean and safe (http://www.tvakids.com/environment/cleanwater.htm).</p>

<p>safe / <i>Lo que podemos hacer para mantener el agua limpia y saludable</i></p>	<p><i>Lea de seis cosas que puede hacer usted mismo, y anime a otros que hagan, para mantener el agua limpia y saludable.</i></p>
<p>Groups working to protect watersheds / <i>Grupos que trabajan para proteger cuencas</i></p>	<p>Use the Locate Your Watershed – Watershed Information Network (http://cfpub.epa.gov/surf/locate/index.cfm) to find information about your local watershed, like who is working on watershed issues. Type in your local zip code, stream name, or city name to “locate your watershed.”</p> <p><i>Use el Locate Your Watershed – Watershed Information Network [Localiza tu cuenca-Red de información de cuenca] para encontrar información sobre su cuenca local, como quien trabaja para resolver los problemas de la cuenca. Escriba su código postal local, el nombre del río, o el nombre de la ciudad para “locate your watershed” [localizar su cuenca].</i></p>