



# Activity 5: Salmon Life Cycle Bracelets

## Age:

Grades 1 - 10

## Time:

One to two 45 minute periods

## State Essential Learning Requirements:

Science 1.3 The student will understand that interactions within and among systems cause changes in matter and energy.

## Multiple Intelligences:

Kinesthetic, Mathematical/Logical, Verbal/Linguistic and Interpersonal.

## FOSS connections:

Environments Module. Environmental factors, habitat needs and range of tolerance.

## Literature Entry Point:

Come Back Salmon (ISBN 0-87156-489-0) or Fish Eyewitness video (90778-1917-3). Discover Salmon Activity Book in trunk.

## Other Links:

This would be a wonderful culminating activity.



## Materials:

Beads of at least eight different colors (Fish shapes would be good)

Twelve beads for each student

String or yarn

Overhead or poster of the life cycle of salmon

City or County Map

WDFW Salmon brochures from WDFW Resource Packet

## Directions:

Review the parts of the salmon cycle. Use an overhead or poster. Read life cycle from Discover Salmon Activity Book (in trunk). Use a City or County map and review the names of local creeks and bodies of water.

Have students examine the colors of the beads. Students must decide where they will be starting in the life cycle. Each bead or series of beads tells a

story about the salmon as it grows, changes forms and travels. Allow the students to choose about 8 to 12 beads. Tie a knot at one end of the string first. Put the beads on the string in order to tell a story. Tie a second knot to hold the beads in place. Students must be prepared to share their stories with others: first with other students in their class, then with other students in their school, finally, students should take home the bracelets and share the story with their family. What do the colors and shapes represent?

## Overview:

Students build a salmon life cycle bracelet using eight to twelve beads of their choice. Each bead stands for a part of the cycle in a story they construct.

## Objectives:

- To describe the parts of the salmon life cycle and relate these to the local environment.

## Critical Questions Addressed:

- Value - Life Cycle of Salmon

## Vocabulary:

redd, spawning gravel, egg, fertilization, death of adults and energy back into system as nutrients for other living things in the system, alevin, egg sack, oxygen, fry, habitat, feeding, smolts, estuary, migration, ocean, feed on zooplankton and small fish, return, stream, water quality, siltation, etc.

## Background:

Increases in population and urbanization in our community have had an affect on water quality and quantity that is needed to support salmon population. Water flowing over impervious surfaces—roads, parking lots, driveways, and roofs—collects and carries contaminates—such as gas, oil, lead, antifreeze, and pet wastes into the creeks and rivers. In residential areas, high levels of nutrients from lawn and garden fertilizers, and pesticides can seep into rivers and streams. Riparian zones have been destroyed. Salmon habitat requirements have been severely impacted.

## Beads might signify the following:

Orange : salmon egg

Gray: Gravel

Dark Blue: ocean phase

Dark Blue: ocean phase

Seal: predator

Green: riparian area

Black: oil

Bear: stream side predator

Clear light blue: river migration

Clear teal blue: estuary

Pink: feeding on shrimp - pink flesh color

Silver salmon: silver color of this phase

Clear teal blue : return to estuary

Red: Redds

Clear: clear, clean water

Whale: predator

Whale: predator

Clear light blue: river life

Clear Purple: wetland

Brown: silt pollution

Orange: salmon egg

**Students—Fill out the chart below and tell what the colors of your beads means.**

Color	Meaning
1)	
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	

**Extensions:**

Have students write out their salmon life cycle stories and illustrate them. Have them tell their stories to their second grade buddies, members of their immediate and extended families.

Have students use music or rhythm to add to their stories.

List at least three differences between salmon's struggle in a urban water environment and a wild natural environment.

**Reflections:**

What was the color that you used the most and why?

Does this help you to remember the salmon cycle? Why or why not?

What was your favorite story from your classmates and why?

**Salmon Life Cycle Bracelets- Students Directions:**

Using the big red poster "Salmon Life Cycle" go over the parts of the salmon life cycle.

Use a map and go over the names of the rivers, streams, and bays in your watershed.

Look through the beads of different colors, sizes and shapes. Choose about 15 beads that can tell the story of the life of a salmon in a stream or river in our community.

Using a string or pipe cleaner and make a bracelet. Each bead will represent part of the story.

Draw the chart below on your own sheet of paper and tell what the colors of your beads means.

Color	Meaning
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2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	

Using your bracelet, tell your story to someone else in your class.

Take home your bracelet and tell someone in your family the story of your salmon.

**Reflections:**

Write your reflections about the bead chart and the bracelet.

What was the color that you used the most and why?

Does this help you to remember the salmon cycle? Why or why not?

What was your favorite story from your classmate and why?

**Extensions:**

Write out your salmon life cycle stories and illustrate them.

Tell your story to your buddies in other grades, members of your family or a neighbor or relative.

Use music or rhythm to add to your stories

List at least three differences between salmon's struggle in an urban water environment and a wild natural environment.



**ACKNOWLEDGMENT:** \*\*The information for this classroom activity was provided to The NatureMapping Program by Susan Wertz & Bill Hastie



# Salmon Life Cycle Bracelets: Student Worksheet Page 1

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