



LESSON ONE-ACTIVITY TWO: Identification of Alaska's Salmon

Content Objectives: The students will be able to identify the five species of Alaska's Pacific salmon by observing various physical features.

Key Vocabulary: salmonids, anatomy, lobe, pigment. elongated, distinct, pronounced

Supplementary Materials: fresh or frozen salmon, laminated anatomy charts, blank anatomy charts, laminated identification charts, identification worksheets, fish identification game packets, fish identification worksheets, student fisheries notebook/binder

Resources: ADFG-Alaska Department of Fish and Game, USFWS-United States Fish and Wildlife Service, 4-H Fisheries, Pacific Salmon Foundation

Books: Alaska's Wild Salmon ADFG, Fish and Fisheries Alaska Sea Week

Website Wandering:

1. <http://www.sf.adfg.state.ak.us/statewide/AquaticEd/adfgteacherguide/home.html>
2. <http://www.sf.adfg.state.ak.us/region2/ie/sicc/dissectn.cfm> (dissection site)
3. <http://www.pskf.ca/sd/#ext> (dissection site)
4. <http://library.thinkquest.org/05aug/00548/Intro--All%20Games.html> (game)
5. http://atn-riae.agr.ca/seafood/pacific_salmon_overview-e.htm (related site)
6. http://wdfw.wa.gov/fish/identification/pac_salmon.htm (related site)

Activity Sequence:

NOTE: Use the first listed website as a teacher's guide to the book Alaska's Wild Salmon ADFG.

Part One-Evolution and Adaptability

Have students read from Alaska's Wild Salmon ADFG (pages 8-9).

Discuss with students how salmon evolved and the various adaptations they acquired during evolution.

Part Two-Anatomy of a Salmon

Use the anatomy charts to point out the various anatomical features of the Pacific salmon. Start by naming the key external features of the salmon including fins, lateral line, gill cover and nostril and then name all of the key internal organs including the brain, gills, heart, liver, pyloric caeca, stomach, spleen, testes (male), ovary (female), intestine, urinary bladder, vent, swim bladder, kidney, and spinal chord. (If the salmon model is not available you can use the laminated anatomy charts provided and/or create poster size versions of the anatomy charts as they would be helpful for the dissection part of the activity.)

Next perform a classroom dissection on a real salmon. (Use the second and third websites listed as a resources for this activity OR the book resource Fish and Fisheries: Unit One-Activity 4: The Outside of a Fish and Activity 5: What's Inside a Fish?) While pointing out the various features of the salmon add information on the specific purpose of each feature. (The websites have excellent information on structure and function, internal anatomy and external anatomy.) If possible, use several salmon and have students work in small groups dissecting their own salmon while following your step-by-step directions and using the laminated anatomy charts provided.

Check for understanding by asking the students to complete a blank anatomy chart.

NOTE: The third website listed includes a great dissection game.

Part Three-Distinguishing Salmon Species

Use a web chart on the board to introduce the various features used to distinguish one species of salmon from another including color, markings,

gumline, scales, eyes, size and weight. (See related websites for additional information.) Have the students duplicate the web chart in their notebooks.

Have the students read pages 10-13 of Alaska's Wild Salmon ADFG

Next distribute the salmon identification charts provided and have each student fill in an identification worksheet using the book AND chart as resources. Note that the worksheets require the students to identify the individual colors of the five species of salmon during oceanP and spawning stage.

Part Four-Fish Identification Game

Have students break up into small groups and distribute a packet (net full) of fish cards to each group. The purpose of the game is to allow the students to practice identifying the five different species of Alaska salmon. Each fish card pulled from the "net" will list features of the salmon in question. The students will identify each fish card and keep count of how many fish of each species are pulled from the "net". At the end of game the instructor will announce how many fish of each species were in the nets.

Wrap-up Discussion:

Discuss how the adaptability of the salmon species carries a "hidden price". Refer to pages 8-9 read in Alaska's Wild Salmon at the start of the lesson.

SIOP FEATURES:

Preparation

- Adaptation of Content
- Links to Background
- Links to Past Learning
- Strategies incorporated

Scaffolding

- Modeling
- Guided practice
- Independent practice
- Comprehensible input

Grouping Options

- Whole class
- Small groups
- Partners
- Independent

Integration of Processes

- Reading
- Writing
- Speaking
- Listening

Application

- Hands-on
- Meaningful
- Linked to objectives
- Promotes engagement

Assessment

- Individual
- Group
- Written
- Oral