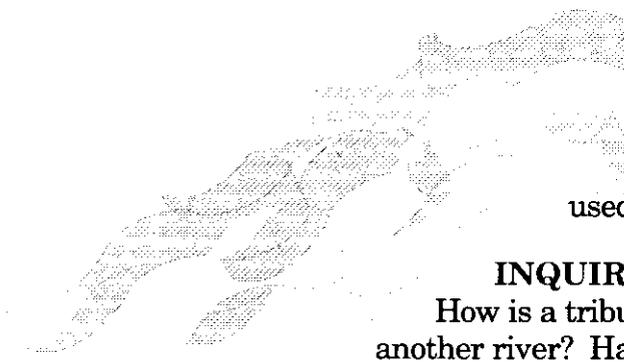


Columbia River System

CONCEPT: *One of the defining features of many geographic regions is a major river system. The Pacific Northwest contains one of the longest rivers in North America: the Columbia River.*

DIRECTIONS: Hand out river system maps to each student. Students work in groups to label as many rivers on the map as they can in a short time. Find out which group labeled the most rivers. The group is debriefed for accuracy and strategies. Other groups may add to the rivers identified by the winning group. All students update their maps to label as many rivers as were identified.

Starting at the mouth of the river, have the students trace as far inland as they can on the Columbia River. Tell them to try to find or guess the location of the headwaters of the Columbia River as if they were salmon returning to spawn (lay and fertilize eggs). **Resist helping students other than to encourage them to guess: “knowing” is unimportant at this point. Students should put their names on these sheets and return them to the teacher. They will be used again in Lesson 4.**



INQUIRY: What is a river? What is a river system? How is a tributary different from a river that flows into another river? Has anyone noticed that nearly the entire system has only one outlet to the sea? This is the only river on the west coast of North America that was vigorous enough to cut through the Cascades as they rose 20-30 million years ago. This information is discussed and modeled in the video, “Columbia River Gorge, A Natural History.”

VIDEO: “Columbia River Gorge, A Natural History” produced by the students of Cleveland High School and the Northwest Film Studies Center. (22 minutes)

LAB: Activities related to water systems could include building a watershed in the classroom to demonstrate the relationship of mountains and valleys and elevation changes to the flow of water. (See the directions for building a watershed at the end of Lesson 3.) An atlas will show the mountain ranges and elevations that affect the Columbia River system.

READING RESOURCES: BPA Backgrounder, Voyage to the Pacific, July 1990. This is a 22-page story of a grandfather and his granddaughter making a canoe trip down the Columbia River, beginning at its headwaters. Maps and illustrations are included in the text; individual student copies are available. You can give extra credit to students who read the entire booklet rather than making it required reading.

Use the enclosed map as a reading exercise. Students need to read and interpret the information presented in symbolic form. How are fish and wildlife portrayed? As a resource to be harvested, i.e., three fishermen, two fish symbols, and one ocean trawler. Traditional Native American fishing and large-scale fishing operations are not shown. Bear, moose, caribou, and geese are shown outside of the region. Note that although forests and forest products are not listed in the key, they are represented on the map. How? Forest products are represented with two log trucks and one symbol of cut logs in the river. No other symbols of trees are present. Ask the students to explain.

CONCLUSIONS: The Pacific Northwest is defined in large part by the Columbia River system or watershed. The next lesson answers the question, "What is a watershed?"