

Lesson 4

Salmon of the Columbia River

Overview

Lesson 4 continues the exploration of the Columbia River that began in Lesson 1. Students build on the observations and discussions that took place during and after watching the DVD selection *Rivers to Power*. Through reviewing science notebook entries and classroom charts students identify the ways that salmon depend on the water of the Columbia River and its tributaries. During the two investigations included in Lesson 4 students learn about the salmon and the Native American stakeholders and how their lives are tied directly to the water of the Columbia River watershed.

In **Investigation 4.1** students learn about the species of Columbia River salmon and steelhead as stakeholders in the watershed. Through a card sort activity, viewing of a DVD selection, class discussion, and reading selections students investigate the complex life cycle of the Chinook salmon.

Investigation 4.2 offers students the opportunity to learn about the significance of the Columbia River and the salmon to the Native American tribes of the Columbia River watershed. Through DVD selections and readings students gain an understanding of the Native American as a stakeholder in the Columbia River.



Disciplinary Core Ideas

Science

4-LS1-1: construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

4-LS1-2: Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

ESE Standard 1: Ecological, Social and Economic Systems

Scientific and Engineering Practices

Engaging in argument from evidence

Crosscutting Concepts

Structure and function

NOTES:

Investigation 4.1

The Columbia River Salmon

Overview

Academic Vocabulary

Chinook Salmon: The largest species of salmon who begin life in fresh water and grow to maturity in the ocean before returning to fresh water to spawn.

Life Cycle: The span of life from beginning to end.

Redd: The area of gravel territory that a female claims and defends. In the center is the nest pocket where the female lays her eggs.

Spawn: The laying and fertilizing of Salmon eggs.

Adult: A mature salmon who lives in the ocean and returns to its birthplace stream to spawn.

Smolt: Young salmon physically changing to survive the migration from fresh to salt water.

Alevin: Newly hatched salmon that live off their yolk sac and stay in the Redd until spring.

Estuary: A place where the tide meets a river current.

Natal: The place where one is born.

Investigation 4.1 gives students the opportunity to learn about the salmon of the Columbia River as stakeholders. The lesson focuses on the complex and amazing life cycle of the Chinook salmon of the Columbia River watershed. To assess students prior knowledge student groups are given a set of salmon life cycle cards and are asked to place them in the order that best represents the life cycle of the Chinook salmon. Students share their order with another group of students and discuss their reasoning for their card placement. Students then view the first half of the DVD *Journey of the King*. After viewing the DVD selection students are given the opportunity to revise the order of their salmon life cycle cards. Students then engage in a narration of the salmon life cycle to provide a kinesthetic opportunity to solidify the key stages of the life cycle.

- Students demonstrate their understanding of the salmon life cycle through a card sort activity.
- Students view the first 15 minutes of *Journey of the King* DVD.
- Students participate in a narration of the salmon life cycle.

Student Learning Targets

I can demonstrate my understanding of the salmon life cycle by placing life cycle cards in the correct order.

I can communicate the vocabulary words used to describe the salmon life cycle through discussion and science notebook entries.

I can learn more about the Chinook salmon life cycle through viewing DVD segments, class discussion, and reading to learn.

Teacher Background Information

Salmon

Salmon are the most well-known species of fish that migrate up and down streams. As a species, salmon are called anadromous because they migrate from fresh water to the oceans and then back again. Resident fish, on the other hand, spend their entire lives in fresh water streams, tributaries, and rivers. Some migrate from streams to lakes (adfluvial), others migrate from streams to rivers (fluvial), and some remain in the same reach of water. Brook trout and bull trout, for instance, are well-known resident fish that migrate up and downstream.

Depending on the species, these migration patterns can vary dramatically. In the case of salmon, coho tend to spawn in small streams and prefer shaded pools with overhanging trees and shrubs; sockeye salmon can migrate hundreds of miles to spawn in large lakes where, as fry, they live for two years before migrating to the sea; and chinook can spawn in large rivers like the mainstem of the Columbia River.

Salmon are called "fry" when they emerge from their spawning area and begin swimming freely and feeding in the stream. As they increase in size and maturity, they become "smolts" or "juveniles." During their time in the ocean, they become "adults." As a result, adults only exist in the river when they are migrating upstream to their spawning grounds.

Based on their life cycle and migration and spawning patterns, fish can face a number of different and changing ecosystems. Listed below are the most common and serious fishery impacts that relate to hydroelectric projects.

1. Slower moving waters in a reservoir can strongly affect salmon for two reasons. First, they can become disoriented in slower moving waters; and second, the length of time it takes smolts to reach the ocean may increase. With disorientation and lengthened travel time comes an increased exposure to predators.
2. Fish passing through or around a dam can become stressed, injured, disoriented, or die because of contact with turbines, the walls of the dam, or deflection screens. They then exit into a relatively small area where their exposure to predators is increased. While fish passage rates are often better than 90%, fish that must pass through multiple dams face proportionally greater risk.

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Estuary: A place where the tide meets a river current.

Natal: The place where one is born.

3. Supersaturation is a danger for fish going over a dam or through its spillway. If too much nitrogen is absorbed in the bloodstream, air bubbles form and create the equivalent of what divers call "the bends." At high nitrogen levels, fish and some other aquatic species die. Also, if supersaturation conditions exist, fish passing through or around a dam will absorb greater nitrogen levels and suffer the effects as they continue downstream.

4. When adult salmon and other fish migrate upstream, the dam can again present itself as a physical barrier. If a "fishway" does not exist, then passage to spawning grounds is lost. While fish ladders are the most common fishways, other examples include fish locks, fish elevators and transportation of fish upstream via truck. Where ladders are used as fishways, fish can find it difficult to find them if sufficient attraction flows are not provided at their base. Once up the ladder, they can again become disoriented and be sucked back over a dam or through its spillway. Salmon do not feed during their migratory journey back to their spawning grounds, so loss of energy and time become critical survival issues.

5. Reservoirs can create changes in downstream habitat conditions. For instance, macroscopic plants in the Columbia's estuary are an important food source for salmon migrating to the sea. These plants, however, are no longer as prevalent in the estuary as they once were. Part of this decline has been traced back to conditions caused by reservoirs in the mainstem of the Columbia and on the Snake River.

There can also be effects to fish from loss of riparian vegetation, sedimentation, erosion, and temperature changes. Unlike the impacts listed above, however, these effects are also caused by non-dam activities such as farming, logging, and land development. As a result, when studying the health of habitat along a particular reach of river or tributary, all sources of environmental impacts must be reviewed.

Further, while fish migrating down and upstream may encounter altered ecosystems and barriers that impact their ability to survive, predation from other species also has an impact. Squawfish, for instance, live below a dam where (as predators) they can easily feed on smolts as they come through the tailrace of the dam's powerhouse.

Likewise, slower moving waters and temperature changes caused by reservoirs can provide improved environments for warm water fish such as smallmouth bass and walleye. These resident fish also prey on salmon smolts moving downstream. And as smolts enter the ocean, the increased presence of sea lions makes survival more difficult.

The introduction of non-native fish to Northwest rivers further complicates the situation. Warm water fish such as smallmouth bass and walleye are examples of non-native species introduced to Northwest rivers by humans. Examples of non-native trout include brook and rainbow trout. While many anglers enjoy catching these fish, it is important to note that their improved conditions are at the cost of poorer conditions for native stocks of salmon and trout.

From the Foundation for Water and Energy Education (FWEE) <http://fwee.org/about.html>

MID-COLUMBIA SALMON SPECIES

There are three types, or species, of anadromous fish in our region (anadromous is defined as a fish that begins life in fresh water and grows to maturity in the ocean before returning to fresh water to spawn). They are chinook salmon (with three races based on their arrival in the area in either spring, summer or fall), sockeye salmon and steelhead trout.

The main stem of the Columbia still has populations of summer/fall chinook spawning in certain places, while each tributary (Wenatchee, Entiat, Methow and Okanogan) has naturally producing populations of spring and summer chinook. The Wenatchee and Okanogan systems have populations of sockeye salmon, while all of the tributaries have naturally occurring populations of steelhead.

Chinook spawn from the upper reaches of the tributaries, downstream through the main stem of the Columbia River. After hatching, they may spend up to one year in fresh water before emigrating to the ocean where they spend from one to five years before returning to their native streams to begin the cycle anew. The National Marine Fisheries Service (NMFS) has reviewed the status of all anadromous species in the mid-Columbia region and determined that summer/fall chinook populations do not warrant listing under the Endangered Species Act, but spring chinook populations were listed as endangered in March 1999.

Sockeye spawn in the tributaries near a lake, spend one to two years in the lake before emigrating to the ocean, then spend one to two years in the ocean before returning. The National Marine Fisheries Service has determined that sockeye populations do not warrant an endangered species listing.

Steelhead exhibit the most complex cycle of any of the species in the region. Like spring chinook, they generally spawn in the upper reaches of each watershed. They can spend up to seven years in fresh water before migrating to

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the ocean, but most spend two to three years. They usually spend one to three years in the ocean before returning to the river where they began life. Some steelhead never migrate at all, spending their entire lives in fresh water as resident rainbow trout. The National Marine Fisheries Service listed steelhead as endangered in 1997.

Pikeminnow are the salmon's most formidable foe in the river. Unlike salmon, they thrive in the slow-moving water created by damming and they enjoy the snacking on juvenile salmon. The Bonneville Power Administration, the U.S. agency that wholesales power generated by federal dams in the Columbia River Basin, has estimated that in one reservoir alone, predators consume 2.7 million juvenile salmonids (salmon and steelhead trout) annually. Pikeminnow took the lion's share - an estimated 78 percent.

Investigation 4.1

Materials

For each student

- 1 science notebook

For every four students

- 1 set of salmon life cycle cards

For the class

Stakeholders of the Columbia River chart from Lesson 1

DVD player

Video – *Journey of the King* 22 minutes

Poster: *Salmon of the Wenatchee River System*

Adult salmon (laminated graphic)

Salmon eggs represented by orange beads

Clothesline to mark a 10' x 10' area as the redd

3 mil clear plastic to form a 3' x 3' nest pocket

Bag of sand and gravel to spread on nest pocket

12 Student script cards

Preparation

1. Assign student groups of four students for Investigation 4.1
2. Locate the salmon life cycle cards and have one set available for each group of four students
3. Preview the DVD *Journey of the King* and make sure that the necessary technology to show the DVD is available for use.
4. Locate the salmon life cycle script cards and identify students to read each card
5. Gather and set up the salmon life-cycle props including:
 - 1 - 3x3 clear plastic sheet to represent the nest pocket
 - 1 bag of sand and gravel (non-consumable) representing the river bottom
 - 1 bag orange beads representing salmon eggs
 - 1 roll of orange flagging tape to mark off the 10x10 ft. redd (nesting area)
 - Poster: *Salmon of the Wenatchee River System*

Teachers who have taught the River of Power unit in the past have found that it works best to do the salmon life cycle narrative activity outside, or in the gym. Ahead of time, ask 2 students to measure out and flag a 10ft. x 10 ft. area (this is the redd). Anchor it with rocks, books, or tape if appropriate. At the redd's center, lay out the 3ft. x 3ft. plastic sheet to represent the nest pocket. Pour the bag of sand/gravel mixture on the plastic to represent the gravel bottom of the spawning stream. Place the bag of orange beads in the center of the gravel area to represent the salmon eggs.

Procedure

1. To introduce the investigation, display the *Stakeholders of the Columbia River* chart from **Lesson 1**. Discuss the following questions.
 - What is meant by the term “stakeholder”?
 - Are all stakeholders of the Columbia River humans?
 - List as many animal stakeholders as you can.
2. Let students know that in today's investigation they will learn about one of the species of animal stakeholders of the Columbia River, the salmon.
3. Introduce the student learning targets for Investigation 4.1 and check for understanding.
4. To review the life cycle of the salmon and demonstrate the student's current understanding introduce students to the salmon life cycle card sort activity.
5. Students will work in groups of four to place the salmon life cycle cards in the order that they feel best represents the correct life cycle. Each group should be given one stack of cards. Students should be encouraged to discuss why they place the cards in their determined order.
6. When groups have completed the task two groups should compare their order and discuss the similarities and differences in their order.
7. Let students know that to check their order and learn more about the amazing and complex life cycle of the salmon they will be viewing a DVD entitled *Journey of the King*. Students should be encouraged to write notes about the salmon life cycle in their science notebook during the DVD.
8. Students should head the next clean page in their science notebook with *Journey of the King* and should be reminded to date each notebook entry.

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Estuary: A place where the tide meets a river current.

Natal: The place where one is born.

9. Show the first 15 minutes of the DVD *Journey of the King*.

10. Students should use their observations recorded in their science notebook, and information gained from the DVD to review their salmon life cycle cards make any changes they feel necessary.

11. Transition to the salmon life cycle narration by referring back to Lesson 2 and the concept of the Columbia River Watershed.

Tell students that:

- The Summer Chinook salmon are an example of one species of salmon that live in the Columbia River watershed.
- They depend on snowmelt and rain that comes from the entire Columbia River Watershed.
- The same snowmelt and rain are the energy source for hydropower.

12. Inform students that the class will be acting out the life cycle of a Spring Chinook salmon at the confluence of the Wenatchee and Columbia rivers, but a very similar story happens at the river tributaries that make up the Columbia River watershed.

13. Move the class to the activity site. Select 2 poster people and 2 salmon “actor” people (these 4 students can be lower-level readers). Select 12 student readers. Hand each student a card (A-L). As facilitator, be prepared to

- Provide reading support to student readers.
- Assist the 2 student actors in using the props to “act out” the action described on the script cards.

- Assist the poster people as they point out the same feature on the poster.

14. Ask each (A-K) student to read his or her card aloud twice. After the first reading, the poster people point out the corresponding illustration. On the second reading, student actors do the motions during the reading.

15. The narration text is found on the next two pages of this guide.

Salmon Life Cycle Narration

TEACHER NARRATOR:

Begin the story by inviting students to imagine they are standing in the middle of the Wenatchee River, very near where it enters the Columbia River. Hold up the laminated paper salmon and introduce the story's main character, a female Summer Chinook Salmon. Point out the 10'x10' flagged area that represents one salmon **redd**. This redd is the area the salmon defends as its nesting grounds. In the center is a smaller 3'x3' area called the **nest pocket**. Start the story with the student reading Card A.

Card A: ADULTS SPAWN – Female digs a redd in natal stream. Eggs, the size of small peas are fertilized and the parents die, producing important nutrients.

Card B: EGGS HATCH, ALEVIN DEVELOP – Eggs hatch in freshwater in 3-4 months. **Alevin** hang out in the redd until developed into fry.

Card C: FRY ARE SMALL – Fry stay in their natal waters for about one year.

Card D: SMOLT – Ready to leave the stream! These 4" – 6" youngsters face many obstacles as they head down the Columbia River to the ocean – predators, dams, etc.

Card E: WANAPUM DAM – Most Smolts go down the slide as they leave their natal stream.

Card F: ESTUARY STAGE – Time to get used to salty water. Smolts live here as they complete final changes to live in the ocean's salt water.

Card G: OCEAN DWELLERS – Zooplankton, krill, invertebrates, small crustaceans, and other fish are on the menu. Time is the time for Salmon to grow and fatten up.

Card H: HEAD FOR HOME – The epic journey begins after 2-5 years of packing on the pounds. Salmon stop eating on their trip home.

Card I: CHANGE COLORS – Return to estuary: Of the five species of Pacific Salmon only Sockeye change from silver to red in freshwater to prepare for finding a mate and spawning.

Card J: THE NOSE KNOWS – Salmon smell their home.

Card K: WANAPUM AND PRIEST RAPIDS DAMS – Adults go up the ladder, designed to be similar to natural rapids to return to their natal stream.

Card L: HOME SWEET HOME – Exhausted, thin salmon return to their natal stream to spawn. And the cycle begins again.

TEACHER NARRATOR-CONCLUSIONS

Hold up the bag of orange beads (representing salmon eggs), and ask students to imagine 5000 beads, representing 5000 eggs. State: only 5 of these 5000 eggs develop into a successfully reproducing adult salmon.

Conclude the life history story by pointing to the *Salmon in the Wenatchee Watershed* poster and summarizing the function of the Wenatchee River for the salmon: Year-round flow of clean cold water that contains oxygen and supports many water-dwelling insects that fingerlings use for food.

Final Activities

1. Upon returning to the classroom, the students review their salmon life cycle cards and make any last revisions to their order.
2. Students write the following vocabulary words in their science notebook and record their definition for each term.

Adult
Alevin
Chinook Salmon
Estuary
Life cycle
Natal
Smolt
Spawn
Redd

3. Revisit student learning targets for Lesson 4.1 and use a thumbs up, sideways, or down to collect input on student success related to the learning targets.

Extensions

(Language Arts)

1. Read aloud *Salmon Stream* (included in the River of Power kit) by Carol Reed-Jones. Carol is from the state of Washington. She presents accurate scientific text using the children's rhyme form, "*This is the house that Jack Built.*"

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Investigation 4.2

The Native American Stakeholders

Overview

In Investigation 4.2 students view the DVD *Memories in the Water*. Through viewing the DVD, classroom discussion, and reading selections students identify Native Americans as the initial human stakeholders of the Columbia River watershed. The students describe how Native American stakeholders were and still are dependent on the water of the Columbia River and its tributaries and record the information in their science notebook. In Investigation 4.2 students list Native Americans as stakeholders. In this investigation students deepen their understanding of the significance of the Columbia River watershed to the Native American stakeholders. The investigation helps students develop an awareness of the historical, cultural, and economic importance of the water and the salmon runs to the tribes of the Columbia River watershed.

- Students view the River of Power DVD selection *Memories in the Water*
- Students identify Native Americans as Columbia River stakeholders and how they are dependent on the water and salmon runs of the river and its tributaries.
- Students read informational text and legends about the Native American tribes of the Columbia Basin to learn about the cultural significance of the Columbia River to the Native American stakeholders of the Columbia River watershed.

Disciplinary Core Ideas

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4-ESS3-1 – Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment. *(Clarification Statement: Examples of renewable energy resources could include wind energy, water behind dams, and sunlight; nonrenewable energy resources are fossil fuels and fissile materials. Examples of environmental effects could include loss of habitat to dams, loss of habitat from surface mining, and air pollution from burning of fossil fuels.)*

Scientific and Engineering Practices

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INVESTIGATION 4.2

Student Learning Targets

I understand how important salmon are to the Native American stakeholders of the Columbia River Basin and can list at least three reasons that the salmon are important to Native Americans.

I can learn about the Native American stakeholders of the Columbia River through viewing DVD selections and reading to learn.

Academic Vocabulary

Stakeholder – A person or group that has an investment, share, or interest in something

Native American – The people of North and South America originating in and naturally living, growing, or occurring in a region or country

Dam – a barrier built across a waterway such as a river to control the level, flow of water

Legend – a story that has been passed down for generations, especially one that is presented as

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Teacher Background Information

Investigation 4.2 introduces students to the Native American stakeholders of the Columbia River Basin.

The following background information comes from the *Spirit of the Salmon* publication prepared by the Columbia River Inter-Tribal Fish Commission

The Importance of Salmon to the Tribe

- **Salmon are part of our spiritual and cultural identity.**
- **Longhouses and churches rely on the salmon for their religious services.**
- **The annual salmon return and its celebration by our peoples assure the renewal and continuation of human and all other life.**
- **Historically, we were wealthy peoples because of a flourishing trade economy based on salmon.**
- **For many tribal members, fishing is still the preferred livelihood.**

- **Salmon and the rivers they use are part of our sense of place. The Creator put us here where the salmon return. We are obliged to remain and to protect this place.**
- **Salmon are indicator species: as water becomes degraded and fish populations decline, so too will the elk, deer, roots, berries, and medicines that sustain us.**
- **As our primary food source for thousands of years, salmon continue to be an essential aspect of our nutritional health.**
- **Because our tribal populations are growing (returning to the pre-1855 levels), the needs for salmon are more important than ever.**
- **The annual return of the salmon allows the transfer of traditional values from generation to generation.**
- **Without salmon returning to our rivers and streams, we would cease to be Indian people.**

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Legend – a story that has been passed down for generations, especially one that is presented as history but is unlikely to be true

Lifeway – the traditional way of life dependent on natural resources and including cultural and religious beliefs

A Tribal Tradition of “Gravel-to-Gravel” Management

The native peoples of the Columbia River Basin have always revered the way the Creator took special care of nature and the way nature obeyed the Creator. This was a perfect mystery. For that reason, Columbia River tribes found it easy to embrace the concept of stewardship. For them, stewardship extends respect for life beyond the dignity of the human person to the whole of creation. That respect involves the responsibility to honor what the Creator provides. As long as nature is taken care of, nature will take care of the people. The tribes continue to acknowledge this traditional wisdom. The tribes developed “gravel-to-gravel” management principles from this traditional wisdom. Gravel-to-gravel management acknowledges the relationship between the biology of the fish, the degree of human pressures on them, and the condition of their physical environment throughout all life history stages. It is an ecologically sound approach that is at the same time sacred and regulatory.

In the native cultures of the Columbia Basin, food and water were never taken for granted, as they often are in today’s society. Tribal society recognized that food and water are always matters of survival and of spiritual well-being. Indian culture and religion are attentive to the human place within nature. A drink of water, the aroma of roasting salmon, or a bite of crispy kouse (root) are ordinary reminders that all humans are dependent on nature. As we are served, we must also serve.

Spirit of the Salmon publication prepared by the Columbia River Inter-Tribal Fish Commission.

Materials

For each student

- 1 science notebook

For every two students

- 1 *Voyage to the Pacific* student reader
- 1 student reading selection, *How Coyote Made the Columbia River*

For the class

- DVD player
- Video – *Memories of the Water*
- Reading selection: *Legend of the Lost Salmon*

Preparation

1. Preview the video *Memories of the Water* and make sure that a DVD player is available for use.
2. Have the *Stakeholders of the Columbia River* chart from Lesson 1 available to reference during the investigation.

Procedure

1. Display the *Stakeholders of the Columbia River* chart from Lesson 1 in a location that is easily seen by all students.
2. Introduce the student learning targets for Lesson 4.2 and check for understanding.
3. Inform students that in today's investigation the class will view a DVD selection entitled *Memories of the Water*. Let students know that the Native American tribes of the Columbia Basin have been stakeholders longer than any other humans, since before the dams on the Columbia were constructed. Tell them that in the video they will have the opportunity to see what the Columbia River looked like when the Native Americans were the only human stakeholders in the region.
4. Show the River of Power DVD selection *Memories of the Water*.
5. Upon completion of the DVD ask students to turn in their science notebook to the Stakeholder Table from Investigation 1.
6. If students did not identify the Native Americans as stakeholders of the river they should add them to their table now.

7. Ask students to identify from the DVD the ways that the Native Americans depend on the water of the Columbia River and its tributaries. Students should record the class responses in the right-hand column of their Stakeholders Table.
8. Hand out the student reading selection, *How Coyote Made the Columbia River* for each student or student pair.
9. As a class read *How Coyote Made the Columbia River*. Discuss the following questions.
 - Why did Coyote want to dig a hole through the mountains so that water from the great lake could flow to the ocean?
 - As a result of Coyote making a way for the water from the great lake to flow through the mountains to the ocean what did his people receive?
10. Have students check to make sure that they have recorded the salmon as one reason the Native American stakeholders depend on the Columbia River.
11. Read aloud to class *Legend of the Lost Salmon*. Discuss the following questions.
 - Why did the salmon disappear from the rivers?
 - Why was that a big problem for the people?
 - Why is it a problem today for people if there are few salmon?
 - Why is it important for us to not be wasteful today?
12. To assist students in thinking of other reasons that the salmon were important to the tribes, read the selection entitled *The Importance of Salmon to the Tribes*, from the Teacher Background section of this investigation.
13. Students should recognize that the salmon were used for:
 - A food source
 - Trade
 - Religious ceremonies
 - Spiritual and cultural identity
 - The opportunity to share traditional values from generation to generation

Final Activities

1. Students should add any additional reasons that the salmon are important to the Native Americans to their Stakeholders Table in their science notebook.
2. Revisit the student learning targets for the investigation and have students turn to a partner to check to see if they can list at least three reasons that the salmon are important to the Native Americans.

Extensions

(Language Arts)

1. The book *Native River the Columbia Remembered* is included in the River of Power kit. The diagrams in the book provide excellent pictures of the Columbia River before the construction of dams. Students can compare and contrast the river before and after the construction of the dams. The book also offers continued information for students to read and write about the Native American culture and customs.
2. There are many different Native American legends related to Coyote and the Columbia River. There are also legends related to Coyote and how he brought salmon to the Columbia River. These can be found by doing an online search for “Coyote and the Columbia River”, or by searching for “Coyote and the Salmon”.

Legend of the Lost Salmon

Yakima Tribe

http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev2_025634.pdf

This story is about when the people ignored the directions of the Creator about caring for the salmon, the salmon disappeared. All of their attempts to bring the salmon back failed until Snake used his powers to revive the salmon. The people were not fooled by Coyote’s pretentious effort to revive the salmon.

The Creator taught the people how to care for this food which was created especially for them. He said, “Do not neglect this food. Be careful that you do not break the rules in taking care of this salmon. Do not take more than you need.” He told them if they observed these rules, the salmon would multiply several times over as long as they lived.

At first the people diligently obeyed the rules, and they lived happily without problems. All along the river there were different bands of people living in their fishing villages, busy catching and drying their supply of salmon.

But one day something strange happened. The people became careless and they neglected to follow the instructions made by the Creator. They became greedy. They did not take care of the salmon. They let them go to waste when they caught more than they needed for their families. They would not listen to the advice from those who were trying to follow the rules. Suddenly the salmon disappeared.

When the salmon were no longer coming up the stream for the people to catch everybody frantically searched the river, but all in vain. There was not one salmon left to be found. Soon they became hungry, their little children were crying and the old people were forced to beg for food.

On day, while they were searching the river, they found a dead salmon lying on the bank of the river. They stared down at it in disbelief when they realized what had happened.

They began to cry out in shame and lament their mistakes, “If we are given one more chance, we will do better. If only we could awaken this salmon, the other salmon might come up the stream.”

The people called a council and they talked about how they could give life back to the salmon. In legendary times those with supernatural powers could revive a lifeless creature by stepping over it five times. The people tried to use their own spiritual powers to revive the salmon. One by one they each stepped over the salmon five times, but to no avail.

There was a recluse named Old Man Rattlesnake. He never went anywhere always staying off by himself. He was very ancient and all the people called him “Grandfather”. Somebody said, “Let’s ask Grandfather to help us! He is a powerful man. Let him revive the salmon!” A messenger was sent. “Oh Grandfather would you come and help us revive the salmon. Everybody has failed.” Old Man Rattlesnake listened and said, “What makes you think I am capable of reviving this lone salmon after everyone else has failed? I am an old man, how do you expect an old man like me to possess powers to do the impossible!” The messenger was sad. “You are our last hope. Please help us, Grandfather.” Finally Old Man Rattlesnake agreed, “I will do my best.” He was so old it was very painful for him to move fast. He moved so slowly and it seemed like such a long way for one so old.

While Grandfather was on his way, Coyote tried desperately, using all his wily skills to convince the people he possessed supernatural powers. He was thinking to himself, “If I revive this salmon I will be a very famous person.” He stepped over it four times, and just as he was stepping over the fifth time, he pushed the salmon with the tipoff his toe to make it appear as though it moved. He announced loudly, “Oh, look, my people, I made the salmon come to life. Did you see it move?” But the people were wise to the ways of Coyote and they paid him no attention.

Finally, Old Man Rattlesnake arrived. Painfully he crawled over the salmon four times. The fifth time something magical happened! Grandfather disappeared into the salmon and the salmon woke up and came back to life and the salmon came back to the rivers. The people learned their lesson well and took care to protect their salmon from then on.

Today when you catch a salmon, and you are preparing it for eating or preserving, if you break the spine you will find a white membrane inside. That is old Man Rattlesnake who gave life back to the salmon.

We did not know all this by ourselves; we were told it by our fathers and grandfathers, who leaned it from their fathers and grandfathers. No one knows when the Great Chief Above will overturn the mountains.

But we do know this: the spirits will return only to the remains of people who in life kept the beliefs of their grandfathers. Only their bones will be preserved under the mountains.