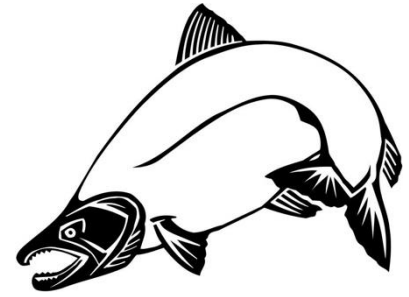

Lessons from Legends



Purpose:

- Students will learn about how salmon find their way back to their spawning grounds in the context of Native American legends of the Pacific Northwest.

Objectives:

- Students will examine a legend about salmon originating from a Native American tribe found in the Pacific Northwest.
- Students will identify important ecological evidence described in the legend.
- Students will demonstrate how salmon find their way back to their spawning grounds through a relay game.
- Students will record observations about salmon perception of pheromones. (4th Grade Focus)
- Students will formulate ideas about how salmon are responsible for providing rich nutrients to inland soils. (5th Grade Focus)
- Students will construct a short Native American legend about some aspect of salmon ecology.

Time Required: 45 minutes – 1 hour

Appropriate grades: 4-5

NGSS and Common Core Standards:

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

5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Materials:

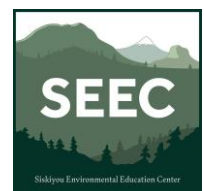
- Poker chips, or some other representation of “ocean resources” (provided)
- 4-5 Bandanas – 1 for each team (not provided)
- Print outs of “Why the Salmon Come to Squamish Waters” for each group (not provided)
- 4-5 different colors of yarn – 1 for each team (not provided)

Activity:

Introduction	
	<ul style="list-style-type: none">• Prior to the lesson, the teacher will probably want to have the course constructed for Spawn-a-thon.



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	<ul style="list-style-type: none"> ○ Utilize different colors of yarn to designate different spawning routes. Some species may travel farther to reach their spawning grounds, so some routes may be longer than others. ○ Every route begins at the same location, the “ocean.” From there, the routes should wind, fork, and/or cross one another, just like natural streams and rivers would. ○ Yarn should be secured well to anchor points along the route, as students will be tugging on it regularly. ○ Make each route end in a different part of the room. <ul style="list-style-type: none"> ● Start by reading the story “Why the Salmon Come to Squamish Waters.” It can be read out loud to the class, or have each group read it.
Body	<ul style="list-style-type: none"> ● Have each group brainstorm about what important ecological factors can be gained about salmon from this story. Explain the importance of an oral history to Native American tribes and ask the students why they think this story would be important to pass on to the next generation. ● Explain the rules of Spawn-a-thon. <ul style="list-style-type: none"> ○ Each group represents a different species. Each student will represent one run of salmon spawning. ○ Every “run” starts in the “ocean” and is given a specific color of yarn to follow for his or her species. ○ When told to begin, every salmon species will have one student blindfolded. That student, representing a run, will collect a handful of poker chips, each representing an individual or group of salmon, and begin spawning upstream to his or her spawning grounds. ○ Every student has to be touching his or her specific yarn color, or they will “die” dropping one of their poker chips upon death. If a student drops a poker chip, it is “dead” and cannot be picked back up. When they run out of poker chips, they must return to the ocean, pass on their blindfold, and the next student will begin spawning. If a salmon reaches their spawning grounds, they can drop their chips around their species’ spawning grounds and swim back to the ocean. (They can take off their blindfolds to get back) ○ After every student has gone through at least once, have everyone freeze. All salmon drop their chips where they are. ○ All of the chips scattered around the room during the game represent dead salmon, providing nutrients like nitrogen to the ecosystem.



	<ul style="list-style-type: none"> • For 4th grade classrooms, discuss the sensory system that salmon use to find their way home from the depths of the ocean and how sensitive it is to changes in the environment. • For 5th grade classrooms, have the students make observations about the dispersal of poker chips and have them hypothesize about how this might affect a stream or forest ecosystem.
Closure	<ul style="list-style-type: none"> • Have students take what they learned about salmon and Native American traditions and write their own short legend.

Modifications:

- **Lower Elementary:**
 - Let students run through the course one time without the blindfold, so they can understand the course and how they will need to always have at least one hand on the yarn at all times.
- **Middle School/High School:**
 - As a team building exercise, the group members that are not blindfolded could be tasked with giving their blindfolded teammate directions through the course.
 - Students could be limited in the number of chips they can carry to represent different limiting factors that control the number of salmon that an ecosystem can support.
 - After the students go through once, alterations can be made to the course, like adding a “dam” which would be represented by the stream going up to the ceiling where the students can’t reach it and must try to jump blindly to grab the yarn where the stream should be.



Why the Salmon Come to the Squamish Waters A Squamish Legend

Long ago when animals and human beings were the same, there were four brothers who went about doing good.

Coming to the Squamish Indians one time, they were persuaded by the chief to stay a while in his village. Knowing the wonder-working powers of the brothers, the chief said to them, "Won't you bring the salmon people to our shores? We are often short of food. We know that salmon is good, but they never come to our waters."

"We will persuade the salmon People," replied the oldest brother, "if we can find out where they live. We shall have to ask Snookum, the sun."

After a good deal of struggle and using a few tricks, the brothers go to the Sun to tell them where to look for the Salmon People. "The home of the salmon is a long way off in that direction," replied Sun, pointing toward the west. "If you want to visit them, you must first prepare much medicine and take it with you. Then all will be well."

The brother let the Sun go and he flew off into the clouds. After gathering many herbs and making much medicine, he said to the Squamish people, "Get out your canoes and make ready for a long journey. At sunrise, tomorrow we will set out for a visit with the Salmon People."

Next morning, they all started westward. For many days they paddled, and finally they came near an island. There they saw what seemed to be a village. Smoke of all colors rose into the clouds. "This seems to be the country we are looking for," said the brothers. "Sun told us that this is the home of the Salmon People." So, the paddlers took the canoes to the beach, which was very broad and smooth. All the Squamish people went toward the village, the four brothers carrying the medicine with them. They gave some of the medicine to Spring Salomon, the chief of the village. As a result, he was friendly toward the whole party.

In the stream behind the village, Spring Salmon kept a fish-trap. Shortly before the visitors had landed, the chief had directed four of his young people, two boys and two girls, to go into the water and swim up the creek into the salmon trap. Obeying his orders, they had drawn their blankets up over their heads and walked into the sea. As soon as the water reached their faces, they became salmon. They leaped and played together, just as the salmon do in the running season, and frolicked their way toward the trap in the creek.



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So when the time came to welcome the strangers with a feast, Chief Spring Salmon ordered others of his people to go to the salmon trap, bring back the four fish they would find there, and clean and roast them for the guests. When the salmon were cooked, the chief invited his guests to eat.

“Eat all you wish,” he said, “but do not throw away any of the bones. Be sure to lay them aside carefully. Do not destroy even a small bone.”

The Squamish and the brothers gladly accepted the invitation, partook freely of the roasted salmon, but wondered why they were asked to save the bones.

When all had finished eating, some of the young men of the salmon village carefully picked up the little piles of bones the guests had made, took them to the beach, and threw them into the sea. A few minutes later the four young people who had earlier gone into the water re-appeared and joined the others. For four days, the Chief thus entertained his guests with salmon feasts.

The care taken with the bones at each meal excited the curiosity of one of the visitors. On the fourth day, he secretly kept back some of the bones and hid them. At the close of the meal, the rest of the salmon bones were collected in the usual manner and cast into the sea. Immediately afterwards, four young people came out of the white water. But one of them was covering his face with his hands.

Approaching the salmon chief, the youth said, “Not all of the bones were collected. I do not have any for my cheeks and nose.” Turning to his guests the salmon chief asked, “Did any of you mislay any of your salmon bones? Some are missing.” And he pointed to the face of the young man.

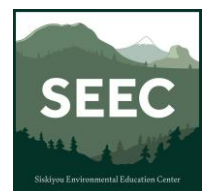
Alarmed by the result of his act, the Squamish youth who had hidden the bones brought them out, pretending that he had just found them on the ground. Now all the visitors were certain that their hosts were the Salmon People.

“We have come to visit you, Salmon Chief, for a special purpose,” explained the oldest brother. “We came to ask you to let some of your salmon people visit Squamish waters, come up the streams of the Squamish people. My friends are poor, and they often go hungry. We shall be very grateful if your people will sometimes visit them.”

“I will do as you request,” replied the salmon chief, “on one condition: they must throw all the bones back into the water as you have seen us do. If they will be careful with the bones, my people can return to us again after they visit you.”

“We promise,” said the four brothers.

“We promise,” said all the Squamish people.



Then they made preparations to return to their home across the water, toward the rising sun. As they were leaving, the salmon chief said, "I will send Spring Salmon to you first in the season. After them I will send the Sockeye, then the Coho, then the Dog-Salmon, and last of all the Humpback."

Ever since that time, long ago, different kinds of salmon, in that order, have come to the Squamish waters, to the sea, into the straits, and into the streams. And in the days of old, the Indians were always very careful to throw the bones of the salmon back into the water.

