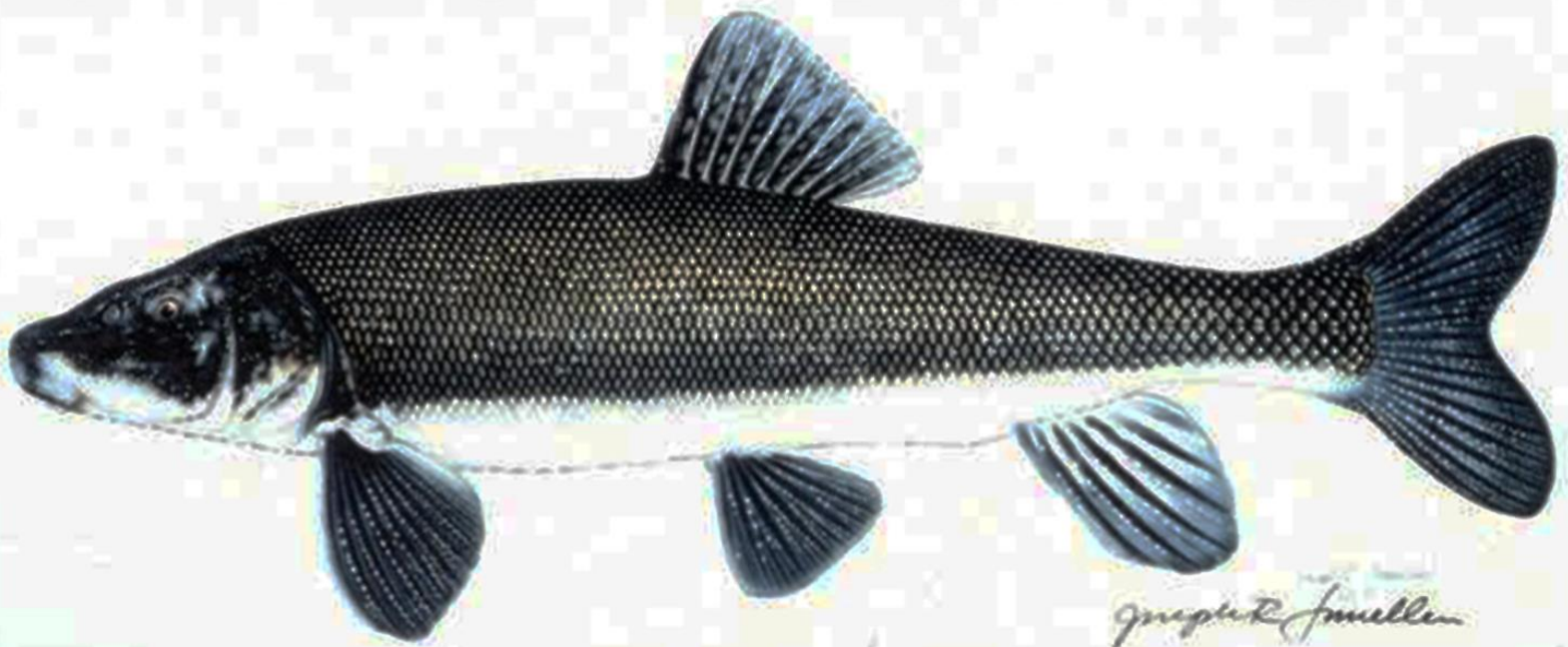


C'waam and Koptu Lessons:

1st Grade

A lesson on the historic, ecological, and cultural importance of the C'waam and Koptu fish to the Klamath Basin.



C'waam and Koptu Lesson Content

- **Introduction to the C'waam and Koptu of the Klamath Basin**
- **Lesson Overview for Teachers**
- **Lesson 1: Introducing the C'waam and Koptu: Understanding Physical Adaptation**
 - The Klamath Tribes: C'waam and Koptu (Slides 1-7)
 - Physical Attributes Worksheet
 - Levels 1-2
- **Lesson 2: C'waam and Koptu Survival Strategy**
 - The Klamath Tribes: C'waam and Koptu (Slides 8-13)
 - This or That Worksheet
 - Levels 1-3
- **Lesson 3: The C'waam Creation Story**
 - Creation Story Worksheet
 - Levels 1-3
- **Lesson 4: The C'waam Ceremony**
 - The Klamath Tribes C'waam and Koptu (Slides 14-22)
 - Cause and Effect Worksheet



Introduction to the C'waam and Koptu of the Klamath Basin

The Klamath Tribes have always lived in and around the Klamath Basin. The Klamath Tribes consist of the Klamath and Modoc Tribes and the Yahooskin band of the Paiute. There is more to it, but like most of Native history, it is complex. See the Notes section for a more detailed description. Long ago, our basin looked very different. Where there are now dry pasture and crop lands, there used to be lakes and wetlands. The marshes of the area were a stopping point for hundreds of species of birds on their long migration. They would eat and rest on the land. The wildlife was abundant. And the Klamath people lived off what was available from the land. Foods that are traditional sources of nutrition for Indigenous people are called *First Foods*. One of the *First Foods* of the Klamath people is the sucker fish that are native to the Klamath Lake and rivers around it. These fish are the C'waam (pronounced tch-wom) and Koptu (Pronounced cop-tu). They were called Lost River Suckers and Short Nose Suckers by the settlers to the region. And they are an endemic species. The fish and the Klamath people have lived here for *time immemorial*. These fish have adapted to live in this specific environment. However, the Klamath Basin has changed so drastically, that they are no longer suited to live here, and the fish are dying.

The Klamath Lake is the largest body of freshwater west of the Rocky Mountains. Before the land was converted to agricultural use, it was largely marshes and wetlands that covered much of the area. In 1902, President Theodore Roosevelt authorized the reclamation of swamps and lakes to increase land acreage available for agricultural use. Lakes and wetlands were drained for cultivation. This changed the ecosystem and has caused a steady decline in the health of the Klamath Lake and wildlife around it. This has been compounded by a significant decrease in the amount of rain and snowfall in the region over the past 20 years. Two species that have suffered to the point of almost certain extinction are the C'waam and Koptu fish. These fish are culturally significant to the Klamath people. And they are just one part of the natural habitat that has been devastated by the change in the land. The Klamath people have lost many other traditional first foods.

The goal behind this lesson is to teach students the changes that took place in the Klamath Basin and the impact it has had on the wildlife here, particularly the C'waam and Koptu fish. We want students and teachers to understand the importance of these fish to the Klamath people and surrounding community. Our C'waam creation story ties the health of these fish to the health and prosperity of our people. We believe that the fish are intricately tied to the health of our people. And we share this belief through the creation story. Indigenous people have long used stories to explain the world around them and recent studies have reinforced the importance of story in the learning process.

We hope this curriculum serves as a jumping off point for you and your students to talk about the environment and how important it is to protect it.



Lesson Overview for Teachers:

This packet includes four connected lessons around the topic of the C'Waam and Koptu fish. The first two are science lessons. One discusses how the physical attributes of animals solve problems they encounter in their environment and how humans create answers that can mimic animal solutions. The other covers how adults and offspring have protective behaviors that promote survival of the young. The third lesson is about creation stories. Native Americans use creation stories to explain how things came into existence. We discover the C'Waam creation story, and the students will write their own creation story. The last lesson is an exploration of how all families have a past. And our pasts create our current culture. Different ethnic groups have different celebrations, songs, history, etc. that need to be celebrated. This lesson describes the Klamath Tribes history of the C'Waam ceremony. Whenever possible, there are multiple worksheets for each lesson in order for students to be able to participate at a level that is appropriate to them.

Essential Understandings:

Since Time Immemorial
Lifeways
History

State Standards
Covered in these
Lessons:

Science:

1-LS-1

1-LS-2

Social Science:

1-10

1-11

1-19

Language Arts
and Literacy:

1.W.3

Vocabulary:

C'waam (Lost River) and Koptu (Short Nose) – Sucker fish that are endemic to the Klamath Basin.

Endemic Species – Species that only exist in one place in the world.

First Foods – Foods that were traditional to the diets of Indigenous people of an area.

Time Immemorial – For as long as anyone has a memory.

Learning Outcomes:

- Students can explain the importance of C'waam and Koptu fish to the Klamath People.
- Students can identify protective physical attributes and parent/offspring survival behaviors of animals, including the C'waam and Koptu fish.
- Students can identify the purpose of a creation story and create their own with a beginning, middle and end.
- Students can identify the importance of history and cultural celebrations.
- Students will be able to follow a line of cause and effect.

Lesson 1: Introducing C'waam/Koptu and Understanding Physical Adaptations

Step 1: Introduce C'waam and Koptu to Students

Use the *Klamath Tribes: C'waam and Koptu PowerPoint* to introduce the lesson. Below is a script you could use, but it is also in the Notes section of the PowerPoint. (Slides 1-7)

"Today we are going to talk about C'waam (Ch-Wom) and Koptu (Cop-Tu). They are very special fish. Part of what makes them special is that they are an endemic species. Endemic means that they only live in one place on the earth. We are lucky because they live right here where we live. The people of the Klamath Tribes live right here where we do too. They have lived here for time immemorial. Time immemorial means for as long as anyone can remember. Until a little while ago, people didn't have grocery stores to buy their food. They had to get their food from the land they lived on. The Klamath people got their food by gathering berries and seeds. They also hunted and fished. One of the foods they fished for was sucker fish, the C'waam and Koptu. These fish have adapted to live in their environment. This is part of their survival."

Step 2: Discuss how human solutions that mimic animal solutions

Animals have external parts. Does anyone know what external means? Yes, it means parts on the outside of your body. What kind of external parts do dogs have? What does the part do? Dogs have many different external parts that help them survive. Over time, animals change their features to adapt to their environment. Does anyone know what it means to adapt to something? (Let students answer.) To adapt means to change so you fit into your situation better. Some animals have adaptations to help them solve problems. Turtles have shells to protect them from other animals that want to eat them. Bats send out signals to know where they are. Sometimes, humans use animal solutions to solve their problems. This is called biomimicry.

Step 3: Discuss how C'waam and Koptu are Adapted for Survival

"C'waam and Koptu have special external parts that help them survive. The shape of their mouths helps them to eat food off the floor of the lake. This is like how humans use a straw to get milkshakes out of the bottom of a cup. Has anyone ever had a cut on their arm or knee or leg? What did your caretaker use to make it better? Probably a bandaid. But they also may have used antibacterial cream to protect you from bacteria and bugs too. Fish have a slime layer and scales that protect them from bacteria and other bugs."

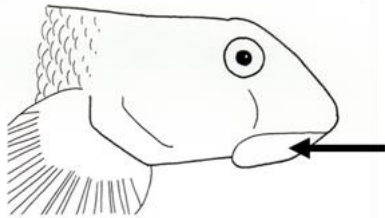
Step 4: Hand Out Worksheet

Look at the pictures on the worksheet. Draw a line to match the animal's physical solution to a problem to the human solution to the problem. If you finish early, look at the bottom of the worksheet. There are four functions of physical solutions. Write down the correct function under each fish body part.

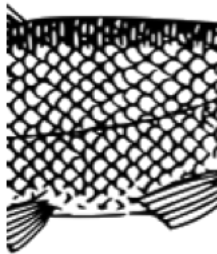
External Features

Matching Sheet

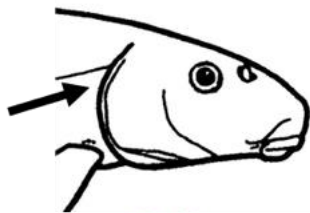
Animals have external parts of their body that help them survive. Sometimes humans create similar solutions to their problems. Draw a line to match the animal solution to the human solution.



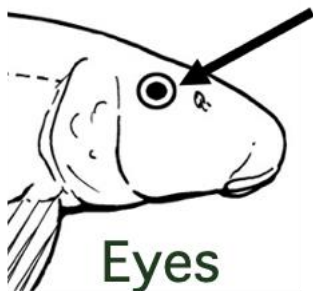
Mouth



Scales



Gills



Eyes



Armor



Mask



Straw



Goggles

External Features Matching Sheet

Animals have external parts of their body that help them survive. Sometimes humans create similar solutions to their problems. Draw a line to match the animal solution to the human solution. Write the word from the bottom of the worksheet that matches how the body part helps the fish survive.

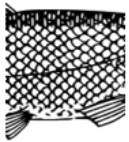


Mouth



Armor

Eat Food



Scales



Mask



Gills



Straw



Eyes



Goggles

Eat Food

See Underwater

Breathe Clean Air

Protect

Lesson 2: C'Waam and Koptu: Survival Strategy

Step 1: Talk about Survival and Strategy

Talk about survival and how we use strategies to stay safe. Below is a possible script.

"Not only do the C'waam and Koptu have special body parts to protect them. They also have behaviors that keep them safe. Can you think of some things you do to keep yourself safe? Maybe you stay on the sidewalks instead of walking in the middle of the road. What else? (Let students answer.) Good. Baby birds chirp to let their parents know they are hungry and need to be fed. Adult birds build nests high up in the sky to protect the baby birds from predators. All animals have behaviors to protect their babies. Let's learn about what the C'waam and Koptu do."

Step 2: Use the PowerPoint to teach students about survival behaviors.

Use the *Klamath Tribes: C'waam and Koptu PowerPoint* to introduce the lesson. Below is a script you could use, but it is also in the Notes section of the PowerPoint. (Slides 8-13)

"Almost all fish make babies by laying eggs. One way that the C'waam make sure their eggs stay safe is by laying them in the plants and reeds along the river below the surface of the water. They are hiding their eggs. Do you know why they would hide their eggs? Because other fish and birds want to eat them. When they lay the eggs hidden in the grass, it keeps the eggs safe. The adult fish then leave and go back to Klamath Lake where there is more food available for them. But the eggs have to stay in the river because the water is just the right temperature for them."

"C'waam and Koptu lay tens of thousands of eggs at a time. This is because many of the babies won't live to be adults. They hope that out of all of those eggs, at least two will live to be adults. Because it takes two adult fish to make a baby fish."

"Once the eggs hatch, the larval fish need to make their way back to the lake. But they can't swim during the day when all of the other animals are awake and feeding. So, when the moon comes out, the baby fish come out of the reeds and the current sweeps them down the river towards the lake. They do this every night until they make it back to the lake where all of the food is."

Step 3: Hand out worksheet

"Look at your worksheet. If you have a space to write your answers, you can fill in the blanks. If your worksheet has a choice of words, circle the correct word. If your worksheet has pictures, circle the correct answer and cross out the wrong answer. I will read the questions and you can write or circle your answer."

Read the worksheet out loud to the students, giving them time to complete each question.

Lesson 3: The C'Waam Creation Story

Step 1: Introduce the Concept of Family History

"Every family has a history. Your parents had parents. And their parents had parents. They are called your ancestors. And almost every one of you have families that came to the United States from other countries. They haven't always lived in ___(name of city)__. They may have come from England or Japan or Germany. They may have come to the United States for freedom or a change at success. They may have been sheep herders or sailors. Some people know their family history. Some people do not."

"Native Americans pass on their history through stories. They also use stories to explain the world around them. They have been used to pass down knowledge and tradition to the next generation. There are two main types: Traditional Stories and Creation Stories. Traditional stories are stories passed down that teach. Creation stories tell how things came into existence. There are creation stories telling how people came to live on Earth and how specific animals came into creation. We are going to watch a movie about the creation story of the C'waam."

Step 2: Play from the start through 1:50 minutes of the Killing the Klamath Video

(<https://www.youtube.com/watch?v=PEfZOkg5ksw> or <https://www.pbs.org/video/killing-the-klamath-53mgh2>)

*ONLY play the start of the video through 1:50, the rest is for an older audience.

Step 3: Creation Story

Let's talk about the creation story of the C'waam. What was the story? Start a discussion with the students to ensure that they comprehended that the beginning was the decrease in fish available to eat. At the same time, there was a giant snake that was harming the people. The Creator cut the snake into many pieces and threw them into the lake. The pieces of the snake became the C'waam and they filled the lake. The Klamath now had plenty of fish to eat. And the Creator told them that they should celebrate and be thankful for the C'waam. The Klamath people believe their health is tied to that of the C'waam. When the C'waam suffer, the people suffer too.

Step 4: Writing their own creation story.

Explain to your students that stories have been used as a way of learning and passing on information for many, many years. The Klamath people have stories about many of the places around us. Crater Lake, Mount Mazama, and Klamath Lake to name a few. They also have stories about the different animals. Stories that tell how something came into being are called creation or origin stories. Still, other stories pass down wisdom or tradition. But these stories are not myths or legends.

Lesson 3: The C'Waam Creation Story

Step 4: cont....Writing their own creation story.

It's important to appreciate the distinction between myth and story. Another lesson published on ODE's website addresses this well in the following text: "One of the great misperceptions regarding Native American storytelling traditions is that stories are conveyed as myths, legends, or lore. These terms imply that the content is entirely fictional and that its primary purpose is entertainment. In contrast, most Native American stories convey important cultural teachings, origin beliefs, and ancestral knowledge. To reduce these stories to the level of folklore is inaccurate and conveys a lack of understanding about the role of oral storytelling in Indigenous cultures. For the purposes of this lesson, we will use the terminology 'story' or 'teaching'." (Oregon Department of Education, n.d.). Indigenous Stories are not myths, in fact many of the teachings that were assumed to be false, have later been corroborated by science.

Explain to your students that today they are going to write their own origin or creation story to explain how something they like came into existence. Have your students choose their favorite animal or plant. Guide the students in completing the worksheets to create their own origin/creation story about that animal or plant. With the worksheets, hand out the supplemental paper that will help students with words they can use in their story and a checklist for completion.


Level 1 Worksheet: Have students draw pictures of their story. Use the lines to write what is happening in each picture.

Level 2 Worksheet: Have students write their own creation story using the prompts: First, Then, Finally. They can also draw a picture of their story.

Level 3 Worksheet: The students will write an unprompted creation story and make a drawing to go with it. The supplemental worksheet largely targets this level.

My Own Creation Story

My creation story is about _____.

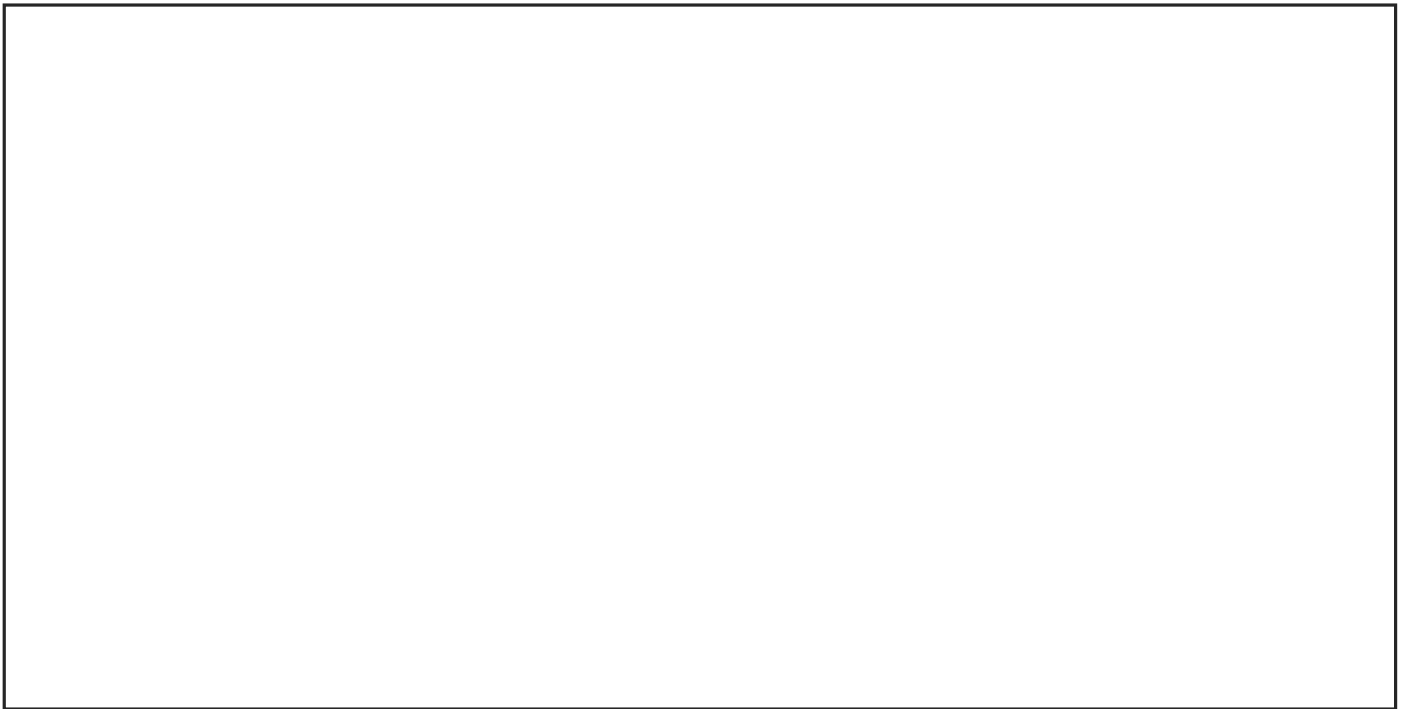






My Own Creation Story

My creation story is about _____.



First,

Then,

Finally,



My Own Creation Story

You are going to write a creation story about your favorite animal, plant, or something living. Your story needs a beginning, a middle, and an end.





Lesson 4: The C'Waam Ceremony

Step 1: Introduce the C'Waam Ceremony

The Klamath people believe that the Creator provides them with everything they need to survive. One of the ways the Creator provided was through the C'Waam and Koptu. We learned about the C'Waam creation story. Now we are going to learn about the C'Waam Ceremony. Does anyone know what a ceremony is? (Let students answer.)

Step 2: Review The Klamath Tribes: C'Waam and Koptu (Slide 14-22)

Slide 15: In the C'Waam creation story the Creator made the C'Waam. And he told them to celebrate the fish and be thankful. And there were many, many C'Waam and Koptu in the Klamath basin.

Slide 16: Every year when the fish made their way back to the Sprague River, the Klamath hold the C'Waam Ceremony. The Klamath people pray, sing, drum, dance and give thanks to the Creator for providing them with fish to eat.

Slide 17: The Klamath believe that if the C'Waam stay healthy, their people will stay healthy. And it is their job to protect and take care of the C'Waam. But, lately, the C'Waam have been dying. And the larval (baby) fish can't survive to become adult fish. Let's learn why the fish can't survive.

Slide 18: A long time ago, before your grandparents were even born, the area around us was mostly rivers, lakes, and marshes. But people changed the way the land was used. Instead of hunting, fishing, and gathering food, people began to grow their food and livestock (cattle). To do this, they had to drain the land of the water. That means there was less water.

Slide 19: As the water in the lake was used for growing food and raising cattle and there was less marshland around the lake to keep it clean. The water also became warmer. And the lake slowly got dirtier and dirtier.

Slide 20: The warm and dirty water was the perfect home for blue-green algae. Blue-green algae is a plant-like organism that lives in the water. When the algae dies, bacteria eat it and break it down to soil. But this takes oxygen.

Slide 21: The C'Waam and Koptu who live in the lake need oxygen to live, just like you. But you get your oxygen from the air and they get their oxygen from the water. The baby fish aren't as strong as the adult fish and without oxygen, the baby fish die.

Slide 22: The Klamath people believe that they are becoming unhealthy and dying because the C'Waam are dying. Therefore, it is very important to them to make the lake healthy again. Because if the lake is healthy, the fish will be healthy.

Step 3: Cause-and-Effect Worksheet

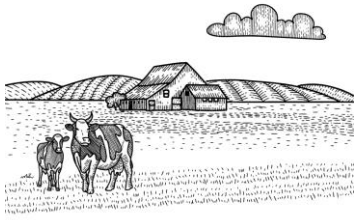
Use the information from the Powerpoint in Step 2 to guide students through the Cause-and-Effect Worksheet. . If students are unfamiliar with cause-and-effect relationship, this is a good way to introduce them. Explain to the students that often actions we take lead to something else happening. For example, when the bell rings, they line up to come in from recess. The bell ringing signaled them to line up. The bell was the cause, and the effect was them lining up. Give several other examples of cause-and-effect relationships. Some might include: when you eat (cause) and you are no longer hungry (effect), when it rains (cause) and your clothes get wet (effect), when someone says something nice to them (cause) and they feel good (effect). Tell students that a good way to remember which is which is that the "c" in cause comes before the "e" in effect in the alphabet. So, the cause happens first, then the effect follows.

Read each cause, verbally linking it to the picture above it. Then read each effect, doing the same. Have the students as a class and ask the students to try to identify which effect each cause has.

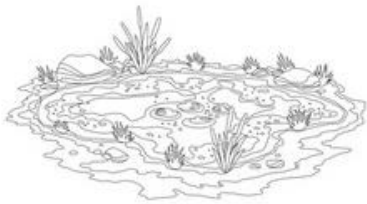
C'Waam: Cause and Effect

Link the cause to the effect by drawing a line.

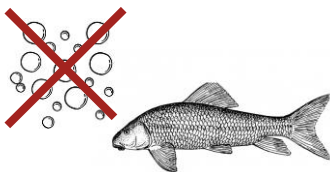
Cause



Land used for farming and ranching.

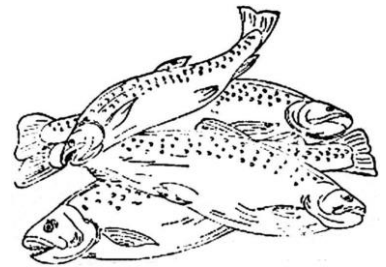


The water in the lake becomes dirty.



The baby fish don't have enough oxygen.

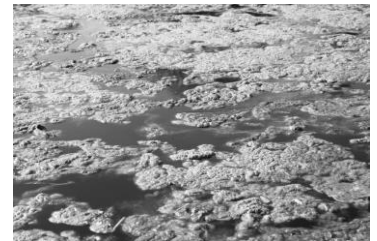
Effect



The fish die.



There are less Marshes to Clean Water



Algae grows and uses up the oxygen.

Additional Resources for Teachers

A River Between Us - <http://www.ariverbetweenus.com>

A documentary of the water crisis in the Klamath Basin. The film captures the issues at hand and key players in the crisis. It investigates the relationships that were built between the Klamath Tribes and local farmers and ranchers.

Killing the Klamath Documentary on PBS –

<https://www.pbs.org/video/killing-the-klamath-53mgh2/>

Another documentary produced by the Klamath Tribes. This 21-minute film focuses on the crisis of the endangerment of the C'Waam and Koptu fish and the effects on the Klamath people.

Klamath Tribes - <https://klamathtribes.org/restoring-fish-and-a-dying-lake/>

US Fish & Wildlife Services -

<https://www.fws.gov/nativeamerican/pdf/why-save-endangered-species.pdf>

References



Oregon Department of Education. (n.d.). *English Language Arts: Oral Traditions*. 4th Grade Tribal History Lesson Plans.
https://www.oregon.gov/ode/students-and-family/equity/NativeAmericanEducation/Documents/SB13%20Curriculum/G4_ELA_Lesson%20Plan_Oral%20Traditions_2SP.pdf.

Notes

Overview of Who Makes up the Klamath Tribes

Today it is common to say that the Klamath Tribes include the Klamath and Modoc Tribes and the Yahooskin Band of Paiute Indians. But this is a *colonial simplification*.

Today's "Klamaths" were once many villages of maqlaqs (people) scattered across Upper Klamath Lake (ews), Klamath Marsh (ewkshi), the Williamson River (ya?aga), the Sprague River (plaikni goge), and others on the Wood River including: e'okak, e'ukwa'lksi, and kowac'di. The villages were distinct entities, had headmen, and were often matrilineal (husbands moving to wives' villages). Modern Klamaths refer to themselves collectively as: ewksiknii or people of the waters. Traditional foods included: lilhanks (deer), c'wam, koptu, and as many as ten other distinct varieties (of suckers), ipos (roots), meYas (trout), and c'iyaaals (salmon).

Today's "Modocs" were many bands before contact with European Americans, including: Hat Creek, Hot Creek, Cumbutwas, and Lost River. Their villages surrounded Tule Lake and massive Lower Klamath Lake. The former was greatly reduced in size by encroaching Americans, who also drained the latter completely in the early 20th century for agriculture. The result is the continuing destruction of many of the Modoc bands' traditional food sources, which included: wocas (lily pod seeds), tmo (grouse), kay (rabbit), and cew (antelope). At one time, before the coming of the whites, the Modoc and Klamath were one people. They spoke different dialects of the same language—which is fundamentally different from the languages of all neighboring peoples.

Today's Yahooskin Paiutes are the Numu (people) whose traditional lands are to the east of the Klamaths and northeast of the Modocs. Their name (Yoo'hoo) comes from the Paiute word for grease, which was used by their ancestors to repel insects. Before the colonizers, their bands were pockets of families, including: Chocktoot, Paulina, and Winnemucca. Their hunting and gathering range was immense. Traditional foods include: tihikya (deer), kammi (jackrabbits), pihi (geese), toisabui (chokecherries), and tuyu (wild plums). As traditional enemies of the Klamaths, the early years on the reservation were difficult. Yainax Agency on the eastern side was established in 1870 to minimize conflicts with the Klamath. The Paiute language is wholly different from both Klamath and Modoc.

Reducing this complexity to "tribes" was a political act of the United States to facilitate treaty making. It was also a function of 19th century anthropologists' prejudices. After 140 years of living together on the same reservation, many of today's members trace their lineage to more than one of the three "tribes."

*Written by Clayton Dumont, Klamath Tribes General Council -Member at Large,
Written in collaboration with Clay Chocktoot, Steve Weiser, Christine Allen, Debbie Riddle, Kya Jackson, and Buzz Kirk*