

Rationale

To bridge anatomy and literature and to think about biology through the lens of literature, students will read the Chumash story *Rainbow Bridge*.

Objectives

1. Students understand the use of story to convey biological information
2. Students identify biological features communicated in *Rainbow Bridge*
3. Students identify condors as birds with curiosity

Aligned Standards

NGSS: Communicating Information; Patterns
 RL 3.5: Students will be referring to the *Rainbow Bridge* story to answer comprehension questions.
 LS 3.A: Literature will be used to communicate biological trait inheritance possibilities. Many biological condor traits will factor in inheritance and interaction.
 SS 3.2: *Rainbow Bridge* is used to describe the Chumash (American Indian Nation) life through story.

Time

One-day lesson
 Teaching time: 45 minutes (approximately)

Vocabulary

Chumash
 vulture
 preserve

Materials

Rainbow Bridge story

Tech Integration

Condors in flight photo library

PROCEDURE – DAY 1**EXPLORE (20 minutes)**

Students read the *Rainbow Bridge* story attached.

Write the Chumash words and translations on the board and go over them before you begin.

Hutash=Mother Earth

Limuw=Santa Cruz Island

Alchupo'osh=Milky Way

Wishtoyo=Rainbow

Mishopshno=Carpinteria

JOURNAL (30 minutes)

Students answer questions about the story:

1. According to this story, where did the Chumash people come from?
2. Name some traits or unique features of the condor that you learned from the story.
3. What personality trait caused the condor to change from a white bird to a black one? How did this happen?
4. What big change caused the Chumash People to increase in number?
5. Do you think Hutash's solution to move the people off of Limuw was good? Why or why not?
6. Tell of a time you (or someone you know) accidentally caused a problem when you were really trying to help.
7. How did the Chumash view the California Condor and why?

Rainbow Bridge

Hutash, the Earth Mother, created the first Chumash people on the island of *Limuw*, now known as Santa Cruz Island. They were made from the seeds of a Magic Plant.

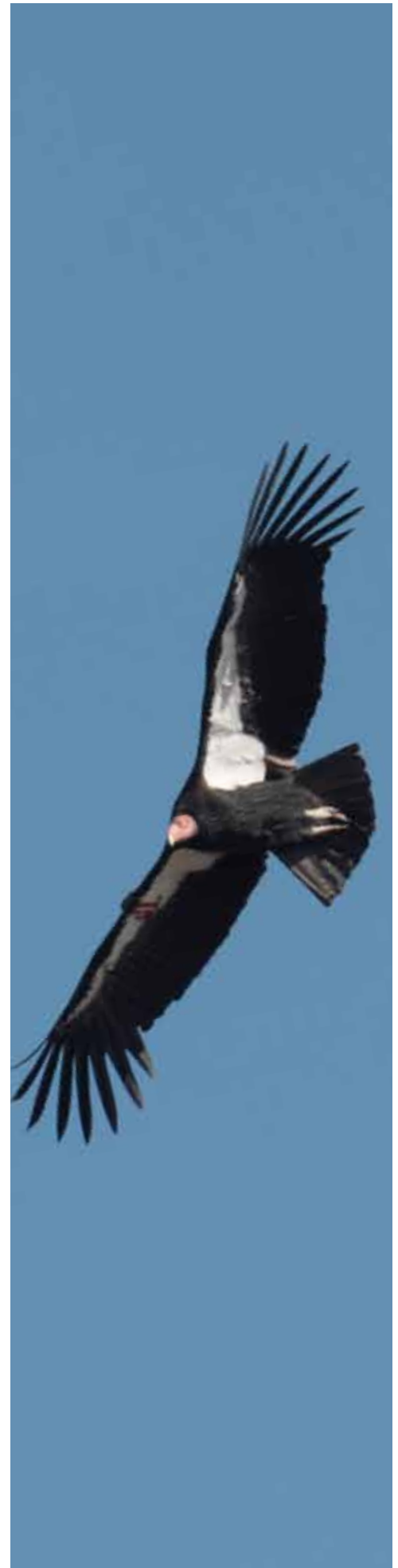
Hutash was married to the *Alchupo'osh*, Sky Snake, or the Milky Way, who could make lightning bolts with his tongue. One day he decided to make a gift to the Chumash people. He sent down a bolt of lightning that started a fire. After this, people kept fires burning so that they could keep warm and cook their food.

In those days, the condor was a white bird. The condor was very curious about the fire he saw burning in the Chumash village. He wanted to find out what it was. He flew very low over the fire to get a better look, but he flew too close; he got his feathers scorched, and they turned black. Now the condor is a black bird, with just a little white left under the wings where they did not get burned.

After *Alchupo'osh* gave them fire, the Chumash people lived more comfortably. More people were born each year and their villages got bigger and bigger. *Limuw* was getting crowded. And the noise people made was starting to annoy *Hutash*. It kept her awake at night. So, finally, she decided that some of the Chumash people had to move off the island. They would have to go to the mainland, where there weren't any people living in those days.

But how were the people going to get across the water to the mainland? Finally, *Hutash* had the idea of making a bridge out of a *wishtoyo* (rainbow). She made a very long, very high rainbow that stretched from the tallest mountain on *Limuw* all the way to *Tzchimoos*, the tall mountain near *Mishopshno* (Carpinteria).

Hutash told the people to go across the rainbow bridge and to fill the whole world with people. So the Chumash people started to go across the bridge. Some of them got across safely, but some people made the mistake of looking down. It was a long way down to the water, and the fog was swirling around. They became so dizzy that some of them fell off the rainbow bridge, down through the fog, into the ocean. *Hutash* felt very badly about this because she told them to cross the bridge. She did not want them to drown. To save them, she turned them into dolphins. Now the Chumash call the dolphins their brothers and sisters.



Before you begin

Print copies of *Rainbow Bridge* for each student.

What to do

According to the folklore in the Chumash story, *Rainbow Bridge*, the condor's wing color came about in a very unique way. Begin by discussing the purpose of folklore and what makes it different from other Literature genres. (It is usually passed down within a certain culture through many generations, it usually teaches an important moral lesson, it usually explains a natural phenomenon.)

Explore

Write the Chumash words and translations on the board and go over them before you begin.

Hutash = Mother Earth

Limuw = Santa Cruz Island

Alchupo'osh = Milky Way

Wishtoyo = Rainbow

Mishopshno = Carpinteria

Depending on your class, decide whether or not to use Chumash words in the story. Ask the class to make a movie in their minds as you read... that they should imagine the story as it is happening and to raise hands if anything is unclear.

After reading the first paragraph aloud, emphasize what life must've been like without fire. Ask the class how they felt the first time they saw something that amazed them. What have they been curious about? Has anything ever been dangerous?

After the second paragraph, discuss how something like the introduction of fire would make life more comfortable. Why would more people be born and the village grow? In conclusion, ask the class what they think about Hutash. She could do some great things, and wanted to do them for good, but did they all turn out good? Consider how she was annoyed at the people, came up with a solution that was slightly dangerous, then tried to fix it by turning people into dolphins. Was there a better solution?

Journal

Pass out Comprehension Questions and have students answer questions about the story (either individually, in partners, or table groups).

Comprehension Questions:

1. According to this story, where did the Chumash people come from?
2. What personality trait caused the condor to change from a white bird to a black one? How did this happen?
3. What big change caused the Chumash People to increase in number?
4. Do you think Hutash's solution to move the people off of Limuw was good? Why or why not?
5. Tell of a time you (or someone you know) accidentally caused a problem when you were really trying to help.

When the class has finished answering all 5 questions, have them share out loud what they came up with. If there is time, have them share what this story taught them about the Chumash people.

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One-day lesson

Teaching time: 45 minutes
(approximately)



OPTIONAL EXTENSION:

Make enough copies of the story for each student. Have them read along, tracking with their index finger, as you read aloud.



OPTIONAL EXTENSION:

Have students re-read the story quietly to themselves before answering comprehension questions.



OPTIONAL EXTENSION:

Add the creation of a skit to the lesson. Have the students create cue cards to inform the four parts of the skit. Film and edit the skit.



OPTIONAL EXTENSION:

Include an exploration in Prisms to this lesson. Have students research and provide information to the class on the topic of Rainbows.