



MATH

Getting to Know Native Americans in Oregon

ESSENTIAL UNDERSTANDINGS

- Since Time Immemorial
- History
- Lifeways

LEARNING OUTCOMES

Students will be able to ...

- Construct a timeline using a set of data (years)
- Perform mathematical operations (addition and division) using a set of data
- Find an average number from a set of data
- Find 'rates' (x per y) from a set of data

ESSENTIAL QUESTIONS

- How can I use mathematical operations to find patterns in a set of data?
- How can I use mathematical operations to learn about Native Americans in Oregon?

LOGISTICS

- Where does the activity take place?
Classroom
- How are the students organized?
 - Whole class
 - Teams: 2 – 4
 - Pairs
 - Individually

TIME REQUIRED

80 minutes of class time

Overview

This lesson uses a dataset and simple mathematical operations to teach grade 4 students important facts about Native American people in Oregon. In the process, it begins to correct several common misperceptions and to build students' awareness of the active role Native Americans play in contemporary Oregon culture.

Students will learn about the nine federally recognized tribes in Oregon, including tribal membership, tribal lands, and the number of people employed by each tribe. This will give them a basic understanding of the presence of Native people in the state.

Students will also be introduced to two key aspects of the complex relationship between Native American tribes and the U.S. government: termination and restoration. While the lesson does not cover these elements in depth, it lays the groundwork for future lessons and further understanding.



Background for teachers

Learn more about the nine federally recognized tribes in Oregon by visiting the following websites:

Burns Paiute Tribe

<https://www.burnspaiute-nsn.gov/>

Confederated Tribes of Coos, Lower Umpqua and Siuslaw

<https://ctclusi.org>

Confederated Tribes of The Grand Ronde Community of Oregon

<https://www.grandronde.org/>

Confederated Tribes of Siletz Indians

<http://ctsi.nsn.us/>

Confederated Tribes of the Umatilla Indian Reservation

<https://ctuir.org/>

Confederated Tribes of Warm Springs Reservation

<https://warm Springs-nsn.gov/>

Cow Creek Band of Umpqua Tribe

<https://www.cowcreek.com>

Coquille Indian Tribe

<https://www.coquilletribe.org/>

Klamath Tribes

<http://klamathtribes.org/>

Learn about tribal lands in Oregon by visiting the following website: <https://oregonhistoryproject.org/historic-viewers/indian-lands-oregon/>

Become familiar with the Native Americans in Oregon: By the Numbers dataset and the lesson worksheets.

STANDARDS

Oregon math standards

4.OA.2 – Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

4.OA.3 – Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

4.OA.5 – Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

4.MD.1 – Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...

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Considerations for teachers

Assessment

Teachers should review worksheets for completion and accuracy.

Learning targets

- I can construct a timeline using a set of data
- I can perform mathematical operations (addition and division) using a set of data
- I can find an average number from a set of data
- I can find rates from a set of data

Reflection/closure

- Ask students to share any patterns they noticed in the numbers they found.
- Ask students to share what surprised them or they learned about Native Americans in Oregon.

Appendix

Materials included in the electronic folder that support this lesson are:

- Land worksheet
- Membership worksheet
- Restoration timeline
- Native Americans in Oregon: By the Numbers

STANDARDS *(Continued)*

Oregon math standards

4.MD.2 – Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

4.MD.3 – Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

MATERIALS

What materials are needed for students to engage in this activity?

- Native Americans in Oregon: By the Numbers handout (one per student)
- Restoration Timeline (one per student)
- Membership worksheet (one per student)
- Land worksheet (one per student)
- Extra paper for students to complete math problems



Facilitator note:

With the exception of the first activity, the following activities do not need to be completed in a specific order. Think of this lesson as a mix-and-match of activities. Select the activities that best match the needs of your students.

VOCABULARY

Terminate – The act of ending an agreement or bringing something to an end.

Restore – The act of returning something to a former owner, place, or condition.

Termination – A time in history in which the U.S. government attempted to terminate the treaty agreements it had made with Native American tribes and to take the land that had been set aside for them.

Restoration – Efforts by Native American tribes to regain the federal recognition, treaty rights, and land originally promised to them.

Activity 1

Introduction to Native Americans in Oregon

Time: 5 minutes

Say:

Native Americans live in every region of Oregon—in rural areas, in cities, and in towns. Most Indian people are members of at least one federally recognized tribe. Federal recognition means a tribe has signed a treaty with the U.S. government. These treaties acknowledge certain rights for tribes, such as their right to maintain their status as independent nations that can set their own laws and establish their own rules of membership. Oregon has nine federally recognized tribes, and today we’re going to learn some basic facts about them.

One thing that’s important to understand as we begin to study Native people is that—while they have lived in this area for thousands of years—they are not only a people of the past. Native people and Native culture are very much alive and thriving in our present day. Indian people go to school, hold jobs, and pursue their dreams. Many Native people live on reservations—areas of land that were set aside for them during the treaty-making process—but many also live in other places. Let’s take a few minutes to discuss what we already know about Native Americans in Oregon.

Allow time for responses and discussion. Correct any misinformation or stereotypes that may come up.

Say:

OK, does it surprise you how much you already know about Native people in Oregon? Or maybe it surprises you how little you know? Well, today we’re going to learn more about Native American people in Oregon by doing some mathematical activities that use a simple dataset. The numbers in the dataset represent some basic facts about the nine federally recognized tribes in Oregon, such as the number of members in each tribe and the size of the land that was set aside for each tribe.

Distribute the Native Americans in Oregon: By the Numbers handout.

Activity 1 *(Continued)*

Say:

This will be our dataset for the next few activities. All the numbers you need are on this piece of paper, and you'll be getting other worksheets that will tell you how to use these numbers to make certain calculations.

Activity 2

Restoration Timeline

Time: 15 minutes

This activity asks students to create a timeline representing the years that Oregon tribes were either granted federal recognition or regained that status through tribal restoration efforts. For tribes that do not have a restoration date, students should use the treaty date provided in the same column.

Facilitator note:

Three Oregon tribes never faced termination, which means they retained their federal recognition as sovereign nations as established in the original treaties: the Confederated Tribes of Warm Springs, the Confederated Tribes of the Umatilla Indian Reservation, and the Burns Paiute Tribe.

Distribute the Restoration Timeline handout.

Say:

OK, to complete this activity you first need to know two words that may not be familiar to you: terminate and restore. [The teacher may find it helpful to post the vocabulary terms for this lesson in a place that is visible for all students and to refer to them as you deliver this script.] At one time, many tribes in the Oregon Territory signed a treaty with the U.S. government. These treaties were extremely unfair to tribes, who had very little choice but to sign them, but they did establish certain rights for the tribes and set aside certain areas of land for them to live on.

As time went on, however, the U.S. government sought to end these agreements and to take away even these limited rights and areas of land. The government wanted the land it had set aside for the tribes, and it didn't want to fulfill the promises it had made. The U.S. government passed laws to terminate its agreements with certain tribes. This took place over several decades, and this time has come to be known as the termination era. Many tribes lost their land and their right to govern themselves during this time period.

Activity 2 (Continued)

Despite these actions, tribal nations did not give up. For decades, many tribes have fought to hold the U.S. government to its original agreements. This means they have fought to restore their rights, including the rights to the land that was set aside for them, the right to govern themselves, and the right to have federal recognition. Over time, many tribes have won these legal battles and have regained some or all of these rights. Native American people refer to this as restoration.

In this activity you will work independently to create a timeline that shows when federal recognition was restored for Oregon tribes or, in some cases, when it was originally established. The timeline you are working with begins in the year 1850 and ends in the year 1990. This represents 140 years of Oregon history. Other than the years that are listed, your timeline is blank. Your job is to locate the approximate point on the timeline for each restoration year and to write the name of the Tribe at that point. The first one is done for you. You will need to complete the final eight on your own.

Allow time to complete the timeline. When students are finished, ask them to share their timeline with a partner to see if they have the same results. Discuss and correct any mistakes. You will most likely need to discuss the fact that three of the tribes in Oregon never had their federal recognition terminated, although these tribes also had to fight many legal battles to get the U.S. government to live up to its treaty obligations and to hold on to their land.

Activity 3

Strength in Numbers: Tribal Membership in Oregon

Time: 30 minutes

Say:

As you can see on your Native Americans in Oregon: By the Numbers handout, Native Americans are a big part of the Oregon population. Sometimes people assume that Native Americans are part of the past, but that is not correct. They are not only an important part of Oregon's history but also of its present and its future. You will be using some of the numbers from this handout to make some calculations about the population numbers of Native Americans in Oregon today.

Say:

The next worksheet will allow you to look closer at the number of Native Americans living in Oregon. You will be using addition, division, and comparison to explore these numbers.

Instruct students to work alone or with a partner. Monitor student activity, answer questions, and refocus students who are off task.

Facilitator note:

If reviewing independent work as a large group is part of your normal routine, review worksheet answers as a class and correct any mistakes.

Activity 4

Tribal Land in Oregon

Time: 30 minutes

Say:

Native Americans have a very important relationship with the land. The numbers you see on your Native Americans in Oregon: By the Numbers handout represents the land size of each tribe's reservation. It's important to understand that those numbers represent only a small part of the original homeland of each tribe. This is a result of the treaties that were signed with the U.S. government, which required the tribes to give up the right to live on lands they had been living on for thousands of years. As a result, the current size of tribal lands are only a fraction of the size of their original ancestral territory.

Say:

The next worksheet will allow you to look at the amount of land that was set aside for each tribe. You will be using addition and division to explore these numbers.

Instruct students to work alone or with a partner. Monitor student activity, answer questions, and refocus students who are off task.

Facilitator note:

If reviewing independent work as a large group is part of your normal routine, review worksheet answers as a class and correct any mistakes.