



Montana
Office of Public Instruction
Denise Juneau, State Superintendent

opi.mt.gov

Mathematics

Model Teaching Unit

Graphing Native American Populations

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Grade 5: Duration 1 - 60 minute lesson

Stage 1 Desired Results

Established Goals:

Data Analysis Mathematics Content Standard 2: A student, applying reasoning and problem solving, will use data representation and analysis, simulations, probability, statistics, and statistical methods to evaluate information and make informed decisions within a variety of relevant cultural contexts, including those of Montana American Indians.

- **2.2 Evaluating Data and Making Conjectures:** Interpret, analyze, and evaluate data using mean, median, range, and quartiles to identify trends and make decisions and predictions about data within scientific and cultural contexts, including those of Montana American Indians.

IEFA Essential Understanding 1: There is great diversity among the 12 tribal Nations of Montana in their languages, cultures, histories and governments. Each Nation has a distinct and unique cultural heritage that contributes to modern Montana.

IEFA Essential Understanding 4: Reservations are lands that have been reserved by the tribes for their own use through treaties, statutes, and executive orders and were not “given” to them. The principle that land should be acquired from the Indians only through their consent with treaties involved three assumptions:

- I. Both parties to treaties were sovereign powers.*
- II. Indian tribes had some form of transferable title to the land.*
- III. Acquisition of Indian lands was solely a government matter not to be left to individual colonists.*

IEFA Essential Understanding 5: Federal policies, put into place throughout American history, have affected Indian people and still shape who they are today. Much of Indian history can be related through several major federal policy periods:

Colonization Period 1492 -

Treaty Period 1789 - 1871

Allotment Period 1887 - 1934

Boarding School Period 1879 - - -

Tribal Reorganization Period 1934 - 1958

Termination Period 1953 - 1988

Self-determination 1975 – current



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Understandings:

- The number of enrolled members of each tribe living on the reservation compared to those living off of the reservation.

Essential Questions:

- How many enrolled members of each tribe live on the reservations?
- How many enrolled members of each tribe live off of the reservations?
- What is the total population of each of the tribes represented both living on or off of the reservation?
- What is the total Native American population in the state of Montana given the information you have?

Students will be able to...

- design a graph using appropriate labels, key, scale, and title.
- compare populations of the reservations for those living on, off, or combined.

Students will know...

- the populations of the Blackfeet, Crow, Flathead, Ft. Belknap, and Northern Cheyenne Reservations.
- how to correctly input data into a graph using appropriate labels, key, scale, and title.

Stage 2 Assessment Evidence

Performance Tasks:

- Finished product will be a complete double bar graph representing five reservations and their enrolled member population that live on the reservation and the number of enrolled members living off of the reservations.
- On the back of the graph, students will answer the Essential Questions from above. Refer to Reservation Populations (attached at the end of this lesson) for answers.

Stage 3 Learning Plan

Learning Activities:

- Download the publication at <http://www.opi.mt.gov/pdf/IndianEd/Resources/MTIndiansHistoryLocation.pdf>
- Share with the students on a projector or make copies for groups to share as you read through it.
- As you read through the information, stop periodically and check for understanding by asking questions about the population, history, land amount, or other interesting facts of a tribe you've just read about.
- Upon completing the reading, discuss populations on and off of the reservation and talk about why they would leave the reservation. This information can be found in *Montana Indians: Their History and Location* (<http://www.opi.mt.gov/pdf/indianed/resources/MTIndiansHistoryLocation.pdf>), under the section titled "Montana's Urban Indians", pages 62-65. (i.e. jobs are hard to come by on the reservation.)
- Handout the graph paper and a copy of reservation populations (below) to each student.
- Explain to the students that they are going to design a double bar graph comparing those living on and those living off of the reservations. Let them know they are going to need to use 2 coloring tools, one for each group.

Mathematics Grade 5 – Graphing Native American Populations (continued)

- The finished product will be a finished double bar graph representing the 7 reservations and their enrolled member population that live on the reservation and the number of enrolled members living off of the reservations.
- On the back of the graph, have students answer the Essential Questions from above. Refer to Reservation Populations for answers.

Resources:

- <http://www.opi.mt.gov/pdf/IndianEd/Resources/MTIndiansHistoryLocation.pdf>
- <http://www.opi.mt.gov/IndianEd/>

Materials/Resources Needed:

- Copies of the OPI publication if unable to display on a projector.
- Copies of reservation populations (below) for each student.
- Graph paper
- Coloring tools
- Rulers
- Pencils

Background Knowledge

Students will need to know...

- How to make a double bar graph using appropriate labels, key, scale and title.
- The locations of the Montana reservations.

Reservation Populations

Blackfeet Reservation

Enrolled members living on or near the Blackfeet Reservation	8,485
Enrolled members living off the Blackfeet Reservation	<u>6,633</u>
Total number of enrolled Tribal members	15,118

Crow Reservation

Tribal members living on or near the Crow Reservation	7,153
Enrolled members living off the Crow Reservation	<u>3,180</u>
Total number of enrolled Tribal members	10,333

Flathead Reservation

Enrolled members living on or near the Flathead Reservation	4,244
Enrolled members living off the Flathead Reservation	<u>2,717</u>
Total number of enrolled Tribal members	6,961

Fort Belknap Reservation

Enrolled members living on or near the Fort Belknap Reservation	5,771
Enrolled members living off the Fort Belknap Reservation	<u>1,532</u>
Total number of enrolled tribal members	7,303

Northern Cheyenne Reservation

Enrolled members living on or Near the Northern Cheyenne Reservation	4,199
Enrolled members living off the Northern Cheyenne Reservation	<u>3,175</u>
Total number of enrolled tribal members (approximate)	7,374