



Montana  
Office of Public Instruction  
Denise Juneau, State Superintendent

opi.mt.gov

# Mathematics Model Teaching Unit

## Pow wow Trails

Created by: Angel Greenley

### Grade 3

### Stage 1 Desired Results

#### Established Goals:

**Number Sense and Operation Mathematics Content Standard 1:** A student, applying reasoning and problem solving, will use number sense and operations to represent numbers in multiple ways, understand relationships among numbers and number systems, make reasonable estimates, and compute fluently within a variety of relevant cultural contexts, including those of Montana American Indians.

- **1.2 Estimation and Operations:** Estimate sums, differences, products, and quotients when solving problems. Add, subtract, multiply (three-digit by two-digit factors), and divide (two-digit dividends by one-digit divisors) to solve problems. Demonstrate fluency with basic facts.

**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 3:** The ideologies of Native traditional beliefs and spirituality persist into modern day life as tribal cultures, traditions, and languages are still practiced by many American Indian people and are incorporated into how tribes govern and manage their affairs.

Additionally, each tribe has its own oral histories, which are as valid as written histories. These histories pre-date the “discovery” of North America.

#### Understandings:

- Pow wows are an important part of some Native American lifestyles.
- Some families travel many miles across the state to attend different pow wows.

#### Essential Questions:

- What are the different reasons that families travel on the pow wow circuit?
- What is the history of pow wows in Native American culture?

#### *Students will be able to...*

- calculate the miles traveled on the pow wow circuit.
- locate different towns of Montana on the map.

#### *Students will know...*

- pow wows are still in existence and that families use them as a time of gathering and sharing with other families and friends.
- pow wows are a source of competition and there are many different types of contests at each pow wow.



Indian Education  
Montana Office of Public Instruction  
Denise Juneau, Superintendent

### Stage 2 Assessment Evidence

#### Performance Tasks:

- Students will complete a table that calculates the distance traveled on a particular pow wow circuit.

#### Other Evidence:

- Students will track the pow wow circuit on a map of Montana.

### Stage 3 Learning Plan

#### Learning Activities:

1. Introduce the history of powwows and the different competitions held within a pow wow. Some American Indian families travel from pow wow to pow wow on what is called the “pow wow circuit” in Montana, using the time to camp and compete.
2. Today we are going to trace a circuit that will take us throughout the state of Montana. We will mark the places of the pow wows on a map, compute the miles traveled, the amount of gas used, and the total money spent on gas. Pow wows are typically held on the weekends, but people traveling the circuit do not go home between each celebration. Instead they travel from one town to the next. That is how we will find out the miles traveled.
3. Give students a map of Montana and introduce the circuit to be traveled. Ask students to locate each town on the map and trace the main highways between the cities. Start at your own town and travel from there. Students will need to fill in your town in the first cell of the table and the last stopping point of the table.
4. There are 3 options for finding the mileage – choose whichever one is appropriate for your class (or have different students use different methods)
  - a. Give the mileage information on a piece of paper
  - b. Have students use the internet and Google maps ([www.google.com](http://www.google.com)) and have them fill in the table on their own.
  - c. Use a map and using the scale, figure the mileage on their own
5. Have students complete the table. As they find the mileage between each town, have them look at the map so they can see the distance on the map in relation to the mileage reported. Also, at each stop, have students choose one competition to research and give a brief description of the event. Each powwow needs to have different competitions, so that students become more familiar with the competitions.
6. Once students have found the mileage, go to the next step of computing the amount of gas used on the trip.
7. The final step is to compute the amount of money spent on gas using a rounded amount. (For students that need differentiation, you can change the price of gas.)

*Mathematics Grade 3 - Pow Wow Trails (continued)*

**Materials/Resources Needed:**

- Your Guide to Understanding and Enjoying Pow Wows – available at <http://www.opi.mt.gov/pdf/IndianEd/Resources/PowWows.pdf>
- Student worksheet
- Map of Montana

Mathematics Grade 3 - Pow Wow Trails (continued)

Name: \_\_\_\_\_

| Starting Town | Stopping Town | Total Miles Traveled | Subtotal of Miles Traveled | Competition Entered and Description |
|---------------|---------------|----------------------|----------------------------|-------------------------------------|
| Great Falls   | Bozeman       |                      |                            |                                     |
| Bozeman       | Havre         |                      |                            |                                     |
| Havre         | Billings      |                      |                            |                                     |
| Billings      | Custer        |                      |                            |                                     |
| Custer        | Arlee         |                      |                            |                                     |
| Arlee         | Great Falls   |                      |                            |                                     |

The car you are traveling in gets 20 miles to the gallon. The gas tank holds 10 gallons. How many miles can you travel on one tank of gas? \_\_\_\_\_

Gas costs \$3.00 per gallon. What will the total cost of gas be for your powwow trip? \_\_\_\_\_

Explain how you got your answer. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Mathematics Grade 3 - Pow Wow Trails (continued)

Answer Key: (answers are based on leaving from Great Falls, MT)

| Starting Town | Stopping Town | Total Miles Traveled | Subtotal of Miles Traveled | Competition Entered and Description |
|---------------|---------------|----------------------|----------------------------|-------------------------------------|
| Great Falls   | Bozeman       | 188 miles            | 188 miles                  |                                     |
| Bozeman       | Havre         | 301 miles            | 489 miles                  |                                     |
| Havre         | Billings      | 247 miles            | 736 miles                  |                                     |
| Billings      | Custer        | 55 miles             | 791 miles                  |                                     |
| Custer        | Arlee         | 422 miles            | 1213 miles                 |                                     |
| Arlee         | Great Falls   | 191 miles            | 1404 miles                 |                                     |

The car you are traveling in gets 20 miles to the gallon. The gas tank holds 10 gallons. How many miles can you travel on one tank of gas? **200 miles**

Gas costs \$3.00 per gallon. What will the total cost of gas be for your pow wow trip? **Approximately \$210.00**

Explain how you got your answer. **You need to get gas every 200 miles. When you fill a tank, it costs \$30. There are 7 groups of 200 in the total miles, so you will need to fuel up 7 times.  $7 \times \$30 = \$210$**

Dances:

**Men's Traditional Dance:** A traditional dance where war parties dance out the story of the battle or hunters dance their story of tracking an enemy or prey.

**Men's Fancy Dance:** Relatively new dance where dancers have colorful outfits

**Men's Grass Dance:** Popular dance where the outfits feature a colorful fringe, replacing the grass dancers originally tucked into their belts.

**Sneak-up Dance:** Follows the definite pattern of drum rolls. Dancers shake their bells and make gestures of either following or seeking out the enemy.

**The War Dance:** Demonstration of dancing ability and is a major contest dance category

**Traditional Women's Dance:** Consists of remaining stationary and bending the knee with a slight up and down movement of the body.

**Women's Fancy Shawl Dance:** Outfit consists of a decorative knee-length cloth dress, beaded moccasins with matching leggings, a fancy shawl, and various pieces of jewelry.

**Jingle Dress Dance:** The dress is made from cloth with hundreds of metal cones or jingles covering it.

**Team Dancers:** Three or four members make up a team and they all dance in the same style.

**Owl Dance:** Can be considered as the Indian version of the waltz.

**Round Dance (Friendship Dance):** Dance of friendship and is performed by all ages. Everyone is encouraged to dance.

**The Crow Hop:** Developed in the 1900s and done with a specific rhythm of the drum beat

**Intertribal Dance:** Everyone is welcome to dance in the Intertribal Dance – even tourists. Dancers move around the arbor sunwise – clockwise.

**The Blanket Dance:** Means of gaining contributions from the audience for certain causes.

**Dropped Eagle Feather Dance:** To most Native Americans, the eagle feather is sacred. So when a feather falls from the dancer's outfit, the powwow must stop and a special ceremony must be performed.

**Honoring Veterans:** Veterans are honored because they were willing to give their lives so people could live.

Definitions were taken from *Your Guide to Understanding and Enjoying Pow Wows* which can be found at [www.opi.mt.gov/IndianEd](http://www.opi.mt.gov/IndianEd).