

# Data Analysis of Ring the Stick

## Fast Facts

Curriculum Area: Mathematics  
Grade Level: Grade 2  
Suggested Duration: Two 45-minute sessions



## Stage 1 Desired Results

### Established Goals

#### Montana Content Standards for Mathematics

**Measurement and Data 2.MD.9** Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object and show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

#### Indian Education for All Essential Understandings Regarding Montana Indians

**Essential Understanding 1** There is great diversity among the twelve sovereign tribes of Montana in their languages, cultures, histories, and governments. Each tribe has a distinct and unique cultural heritage that contributes to modern Montana.

### Understandings

- Kootenai children played tossing a hoop as a competition for skill and as a social game.
- How to predict, collect data, and gather information.
- How to make a graph from the information that is collected.

### Essential Questions

- How many times out of ten do you predict you will be able to catch the hoop with a stick?
- What skills are you developing through this data collection?
- Do you know of other Native American games?

### Students will be able to...

- recognize the uniqueness of games Kootenai children played by age and social skills.

### Students will know...

- how to play the Kootenai game “Ring the Stick.”
- how to collect and display data using a line plot.



## Stage 2 Assessment Evidence

### Performance Tasks

1. Students will play the traditional Kootenai game of Ring the Stick.
2. Students will collect and tally the results of the games.
3. Students will organize collected data and display data using a line plot.

### Other Evidence

1. Teachers will assess students' social skills as they play the game.

## Stage 3 Learning Plan

### Learning Activities

Introduce the game of Ring the Stick and discuss that it is a game played by Kootenai children. It is a game that is used in competitions. Note: Several other Montana tribes had variations of this game including the Assiniboine, Blackfeet, Cheyenne and Dakota.

Have the materials available for students to play the game in groups of three to four.

On a piece of paper, have students make a prediction as to how many times they will be able to catch the hoop on the stick.

Have students toss the hoop ten times and record the number of catches by tallying on their paper.

Once all students have finished, make a class line plot by having the numbers 1 through 10 on the x-axis. Each student will put an X on the number of times he/she caught the hoop.

Display the line plot and review how many were right on their original prediction and record that information.

### Materials/Resources Needed

A piece of rawhide or hard piece of plastic, string, hoop

- Attach a hoop of any size to a stick. However, the older the child the smaller the hoop should be. Rawhide or sinew was originally used for this, but string may be used. Starting from having the hoop flat on the ground, swing the hoop upward and as it comes down try to catch it on the stick. If competing against others, decide on a number of times to catch the hoop on the stick and then take turns until there is a winner.

Graph paper

Pencils

## Montana Content Standards and IEFA Essential Understandings Regarding Montana Indians

[Montana Content Standards for Mathematics – Grade 2](#)

[Essential Understandings Regarding Montana Indians](#)

[Traditional Games Units](#)

## Ring the Stick Example

