

GRADE 4

UNIT : Math - Patterns & Relations; Social Studies - Heritage

THEME: Human Face of Mathematics - Mathematics in Aboriginal Culture

EQUIPMENT

- atlatl and dart
- pylon (or other easily seen target that cannot damage or be damaged by the dart)
- measuring tape
- coloured tape
- distance chart

PREREQUISITE KNOWLEDGE:

Math - Patterns & Relations

Demonstrate an understanding of patterns and relations by:

- identifying and describing patterns and relations in a chart, table, or diagram
- reproducing patterns and relations in a chart, table, or diagram using manipulatives

LEARNING OUTCOMES:

Math - Patterns & Relations

Demonstrate an understanding of patterns and relations by:

- creating charts, tables, or diagrams to represent patterns and relations
- solving problems involving patterns and relations

Work with their understanding of numbers and data analysis to explore and create a deeper understanding of Saskatchewan within the Social Studies context.

Social Studies - Heritage

Knowledge Objectives

Students will know that :

- First Nations peoples have inhabited this region for many thousands of years.
- First Nations peoples developed language, traditions and technologies appropriate for their lifestyles.
- Explorers, fur traders, and early immigrants came to this province for a variety of reasons and brought with them their own cultures.
- interactions of Aboriginal peoples and immigrants resulted in new identities.

Skills/Abilities Objectives

Students will:

- identify and describe past experiences, traditions, and technologies of Aboriginal peoples of Saskatchewan.
- use a variety of resources to access, organize, and present information.
- identify various changes that took place during this time period.

Attitudes/Values Objectives

Students will value and appreciate the past experiences, cultures and traditions of Saskatchewan's peoples.

Citizen Action Objectives

Students may plan and participate in simulation activities.

Teacher Set Up

1. Using the coloured tape, mark off a throw line. Make sure there is ample space for students to throw the dart.
2. About 10 metres from the throw line, place a pylon so the students have something to aim at. you may have to adjust target placement depending on your students.

Culminating Activity

Student Instructions

Background Information

1. Research about the daily lives of First Nations People in Saskatchewan before contact with early explorers: food, tools/weapons, clothing, homes. Discover where the atlatl has been found in Saskatchewan and to how it works.
2. After your teacher demonstrates how to use the atlatl, try it yourself.

Finding Maximum Distance

3. Decide on 3 or 4 students from the class to throw.
4. From the line, each person throws the dart 5 times without using the atlatl, aiming at the pylon.
5. Measure each throw from the line to see how far the dart traveled.
6. Record the maximum distance for each person.
7. Repeat steps 3-6 with the atlatl.

Data Analysis

8. Compare the two sets of data graphically by choosing the appropriate graph type
9. Determine whether the dart went farther with or without the use of the atlatl. Think of some ideas why.
10. Research what weapons the First Nations People used after contact with the early explorers. Discuss the advantages and disadvantages of each of the weapons.

Closure

As a class, discuss how the atlatl is easily made, very effective and very portable. Generate a list of other similar items in the lives of First Nation's People.