

**Title**

Exploring Math, Science, History and Language Arts through Lakota Art.

**Grade Level**

Adult learner. K-12 professional development.

**Theme**

Lakota art.

**Duration**

6 hours.

**Goal**

Participants will increase their understanding of Lakota art by exploring its relationship to math, science, history, and language arts.

**Objectives**

Participants will be able to

1. Identify the forms and uses of parfleche containers.
2. Identify the geometry in traditional designs.
3. Identify traditional materials and paints.
4. Demonstrate a basic understanding of the history of parfleche containers.

**South Dakota Standards**

N/A.

**Cultural Concept**

Lakota art.

**Cultural Background**

*Wolakota* is simply defined as peace. However, its meaning is far more extensive. It establishes a protocol that creates a safe and respectful place that allows equal participation and an equal voice.

Contemporary education compartmentalizes and modularizes curriculum. Lesson plans are specific and typically exclusive to a particular subject area such as math, science, history, or language arts. This workshop will explore the artistic aspect of Lakota culture and its relationship to a variety of subject areas. By researching and creating a parfleche box, participants will utilize math, science, history, and language arts skills. Each skill will have equal participation and an equal voice—*wolakota*.

**Student Activities**

Introductions—15 minutes

Workshop overview—15 minutes

Breaks and lunch—45 minutes

Student activity—4 hour, 30 minutes

Evaluation—15 minutes

1. Presenter led presentation and discussion on the history of Lakota art based on the following resources:

Amiotte, A. (1971). Introduction. In *Photographs and poems by Sioux children* (pp. 7, 9, 11, 13, 15, 17, 19). Rapid City: Tipi Shop.

Marshall, J., III. (1995). Indian art. In *On behalf of the wolf and first peoples* (pp. 93-110). Santa Fe: Red Crane Books.

Walker, J. R. (1982). Arts of the Sioux Indians. In *Lakota society* (R. J. DeMallie, Ed., pp. 99-107). Lincoln: University of Nebraska Press.

2. Presenter led presentation and discussion on the history of American Indian parfleche based on the following resources:
  - Torrence, G. (1994). *The American Indian Parfleche. A tradition of abstract painting*. Seattle: University of Washington Press.
  - Gruber, D. (2003). Exploring American-Indian art: making a parfleche—art projects. *Arts & Activities*, Retrieved June 26, 2008, from [http://findarticles.com/p/articles/mi\\_m0HTZ/is\\_5\\_132/ai\\_104851002](http://findarticles.com/p/articles/mi_m0HTZ/is_5_132/ai_104851002)
3. Participants will trace, cut, and punch rawhide.
4. Presenter led discussion on the history of Lakota geometric designs.
5. Presenter led discussion on the geometry of design including mathematics of the properties, measurement, and relationships of points, lines, and angles.
6. Participants will create a design based on Lakota traditional colors and geometric patterns.
7. Presenter led discussion on the science of traditional paints.
  - Torrence, G. (1994). *The American Indian Parfleche. A tradition of abstract painting*. Seattle: University of Washington Press.
  - Gruber, D. (2003). Exploring American-Indian art: making a parfleche - art projects. *Arts & Activities*, Retrieved June 26, 2008, from [http://findarticles.com/p/articles/mi\\_m0HTZ/is\\_5\\_132/ai\\_104851002](http://findarticles.com/p/articles/mi_m0HTZ/is_5_132/ai_104851002)
8. Participants will paint and assemble parfleche container.
9. Participants will present their work and explain the design and colors.
10. Participant led discussion of how this activity increased their knowledge of Lakota art and how they can use this activity in their classroom.
11. Wrap-up and evaluation (see attached evaluations form)—15 minutes.

### **Resources**

Participant activity aids:

14" X 14" rawhide, pencil, parfleche pattern, ruler, scissors, hole punch, dry paints, water, leather for string, felt, protractor, and a flow chart template.

### **Assessment**

### **References**

- Amiotte, A. (1971). Introduction. In *Photographs and poems by Sioux children* (pp. 7, 9, 11, 13, 15, 17, 19). Rapid City: Tipi Shop.
- Gruber, D. (2003). Exploring American-Indian art: making a parfleche—art projects. *Arts & Activities*, Retrieved June 26, 2008, from [http://findarticles.com/p/articles/mi\\_m0HTZ/is\\_5\\_132/ai\\_104851002](http://findarticles.com/p/articles/mi_m0HTZ/is_5_132/ai_104851002)
- Marshall, J., III. (1995). Indian art. In *On behalf of the wolf and first peoples* (pp. 93-110). Santa Fe: Red Crane Books.

Torrence, G. (1994). *The American Indian Parfleche. A tradition of abstract painting.* Seattle: University of Washington Press.

Walker, J. R. (1982). Arts of the Sioux Indians. In *Lakota society* (R. J. DeMallie, Ed., pp. 99-107). Lincoln: University of Nebraska Press.

**Developer**

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**Date**

26 June 2008

**Additional Information**

**Workshop Evaluation Form**

For each of the following areas, please indicate your reaction:

<b>Content</b>	<b>Excellent</b>	<b>Good</b>	<b>Needs Improvement</b>	<b>Not Applicable</b>
Covered useful material.	[ ]	[ ]	[ ]	[ ]
Practical to my needs and interests.	[ ]	[ ]	[ ]	[ ]
Well organized.	[ ]	[ ]	[ ]	[ ]
Presented at the right level.	[ ]	[ ]	[ ]	[ ]
Effective activities.	[ ]	[ ]	[ ]	[ ]
Useful visual aids and handouts.	[ ]	[ ]	[ ]	[ ]
Instructor's knowledge.	[ ]	[ ]	[ ]	[ ]
Instructor's presentation style.	[ ]	[ ]	[ ]	[ ]
Instructor covered material clearly.	[ ]	[ ]	[ ]	[ ]
Instructor responded well to questions.	[ ]	[ ]	[ ]	[ ]
Instructor gave equal attention to math, science, history, and language arts.	[ ]	[ ]	[ ]	[ ]
Instructor responded well to questions.	[ ]	[ ]	[ ]	[ ]

How could this workshop be improved?

Any other comments or suggestions?