

Lesson Title: Symmetry, Textiles, and Trade  
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Second Grade, Social Studies  
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## **Teaching Traditional American History Program**

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<http://www.chillihistoryproject.com/>

### **Lesson Overview:**

This lesson will introduce students to design patterns along with symmetry and economics.

### **Essential Question:**

What is symmetry and how did it affect the economics of the Santa Fe Trail?

### **Objectives:**

After completing this lesson the student will be able to:

- Produce a construction paper rug using sequencing and symmetry.

Missouri Social Studies Grade Level Expectations

Mathematics

1. Understand patterns, relations and functions
  - B. Recognize and extend patterns
    - Describe how simple growing patterns are generated
3. Apply transformations and use symmetry to analyze Mathematical situations
  - C. Use symmetry
    - Recognize and create shapes that have symmetry

Missouri Social Studies Grade Level Expectations  
Missouri, United States and World History

4. Knowledge of economic concepts (including productivity and the market system) and principles (including the laws of supply and demand)
  - A. (1) Knowledge of basic economic concepts, being able to explain and use them to interpret historical and current events
    - Show how people trade using money and bartering

Missouri Communication Arts Level Expectations  
Reading

1. Develop and apply skills and strategies to the reading process
  - F Pre-Reading
    - Develop and apply pre-reading strategies to aid comprehension
      - access prior knowledge
      - preview
      - predict and confirm or reject
      - set a purpose for reading
  - G During Reading
    - During reading, develop and utilize strategies to
      - self-question and correct
      - infer
      - predict and check using cueing systems
        - meaning
        - structure
        - visual
  - H Post-Reading
    - Apply post-reading skills to identify the main idea and supporting details
      - question to clarify
      - reflect

- analyze
- draw conclusions
- summarize
- paraphrase

### **Materials:**

- 1 copy of the Shared Reading book entitled: The Goat in the Rug as told by Charles L. Blood and Martin Link (non-fiction tale)
- 1 transparency with vocabulary words
- 1 piece of 9"x12" piece of construction paper and a variety of colored construction paper strips measuring 1"x9" for each student

### **Class Time:**

Two 30-minute Social Studies class periods and one 30 minute Shared Reading class period

### **Teacher Input:**

Prior to the lesson vocabulary words will be printed on a transparency and discussed. Words will consist of the following:

- Producers-Makes goods or provides services
- Resources-Items used to make a product
- Natural Resources-Things found in and on the earth, such as water, oil, and sunlight
- Human Resources-People who work, artists, teachers, clerks, and truck drivers
- Capital Resources-Tools used to help produce things (loom, computer, shovel, and truck)
- Intermediate goods-Items used to make another product (yarn/rug, flour/muffin, and leather/shoes)

## Day 1

During Shared Reading students will break into groups with a partner and read The Goat In The Rug.

After reading this Navajo tale during Social Studies each student will be given The Goat In The Rug Question Sheet to answer a series of questions about the tale (master student copy and answer key can be found at the end of this lesson).

Q. What resources were needed to make the rug?

Q. Who was Geraldine?

Q. What was meant by the phrase “There was a lot of me in that rug”?

Q. Who was the producer of the rug?

Q. What are the three groups of resources?

## Day 2

As the story is reviewed the teacher will help students to identify lines of symmetry in the completed rug from the story.

The teacher will model symmetry using various symmetrical designs created on the white board. Next, have students identify matching body parts such as hands, legs, ears, and eyes. Finally, have students name non-symmetrical items such as: nose, mouth, and head.

Students will be given the necessary construction paper materials to create a rug design that demonstrates symmetry.

The teacher will model his/her own completed symmetrical designed rug.

Students should be encouraged to use their creativity in symmetry. Also remind each to check their design and make any corrections before submitting it for grading.

Remind students that textiles were an important commodity used as a trade item over the Santa Fe Trail. The Red Willow People used baskets made from locally retrieved willow branches to trade with the Navajo for woven textiles with decorative symmetrical designs. Plains Indians also took part in trading rendezvous' with these tribes using buffalo hides, meat, and other items garnered from the slaying of the buffalo for things they too were in need of.

**Activities:**

- Design a symmetrical rug

**Closure:** The teacher will move throughout the room checking the progress of each student assisting when necessary as they complete their symmetrical rug. These sheets will be collected for accuracy and scored once everyone has finished.

**References:**

- Along the Santa Fe Trail: Marion Russel's Own Story by: Marion Russell (excellent resource!)
- ...If You Traveled West In A Covered Wagon by: Ellen Levine
- Tree In The Trail by: Holling Clancy Holling
- Lewis & Papa: Adventure on the Santa Fe Trail by: Barbara M. Joosse

**Assessment:**

The Goat In The Rug Question Sheet and a completed Symmetrical Rug Design will be used to determine the strengths and weaknesses of the student (Assessment scoring guides can be found at the end of this lesson plan).

**Extension:**

- Students will work independently to write a personal narrative about something they could design and trade for an item they need.

**Graphics:**

- Symmetry Rug Design activity sheet/Symmetry Rug Design scoring guide.

“A People without history are like the wind on the buffalo grass...”

Lakota

Name \_\_\_\_\_ Date \_\_\_\_\_

## The Goat In The Rug Questions Sheet

1. What resources were needed to make the rug?

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2. Who was Geraldine?

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3. What was meant by the phrase "There was a lot of me in that rug"?

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4. Who was the producer of the rug?

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5. What are the three groups of resources?

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## The Goat In The Rug Answer Key

1. What resources were needed to make the rug?
  - A. Mohair from the goat, scissors, yucca plants, water, buckets, comb cards, spindle, large pots, and loom dye are acceptable answers.
2. Who was Geraldine?
  - A. The goat.
3. What was meant by the phrase “There was a lot of me in that rug”?
  - A. The mohair from Geraldine, the goat was used to weave the rug.
4. Who was the producer of the rug?
  - A. Glenmae, the Navajo weaver
5. What are the three groups of resources?
  - A. Natural, Human, and Capital

## Symmetrical Rug Design Scoring Guide

<b>Criteria</b>	<b>Exemplary 3 points</b>	<b>Competent 2 points</b>	<b>Not Yet 1 point</b>
<b>Symmetry</b>	All designs are placed symmetrically	Some designs are placed symmetrically	No designs are placed symmetrically
<b>Color</b>	Colors used are evident in Native American art	Several colors are used to create designs	One Color or black and white designs
<b>Native American Designs</b>	5 or more designs	2-4 designs	1 design
<b>Symmetrical Edge Designs</b>	Includes 2 or more symmetrically designed edges on each side	Includes 1 symmetrically designed edge on each side	No edges are designed

**Exemplary** 10-12 points

**Competent** 6-9 points

**Not Yet** 0-5 points

