Early Spanish and Iroquois Housing: Similarities and Differences

Through pictures and descriptions of Iroquois longhouses and Spanish adobe houses, students will find the area and perimeter of the homes and identify similarities and differences in the design of the homes.

Author
Joanne Munson

Grade Level
4 (Extension Activity for 7th)

Duration
2 class periods

National Geography Standards
ELEMENT FIVE: ENVIRONMENT AND SOCIETY
15. How physical systems affect human systems.

Arizona Geography Strand 4
CONCEPT 4 Human Systems
GRADE 4
PO 4 Describe the cultural characteristics (e.g., food, clothing, housing, sports, customs, beliefs) of Arizona's diverse population.

CONCEPT 5 Environment and Society
GRADE 4
PO 1 Describe human dependence on the physical environment and natural resources to satisfy basic needs.

GRADE 7 EXTENSION ACTIVITY
PO 1 Describe the human and physical characteristics of places and regions.

Other Arizona Standards
Mathematics Common Core Standards
Measurement and Data
4.MD.3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Geometry (Grade 7 Extension)
7.G.4. Know the formulas for the area and circumference of a circle and solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

Standards for Mathematical Practice
4.MP.1. Make sense of problems and persevere in solving them.

Strand 1 American History
Concept 5: Westward Expansion
PO 4. Describe the impact of Native Americans, Hispanics, and newcomers from the United States and the world on the culture of Arizona (e.g., art, language, architecture, mining, ranching).

Overview
Early Spanish colonists and Native Americans used materials from the earth to build their homes.

Purpose
In this lesson students will compare a Spanish colonial home and a longhouse of the Iroquois. They will explore the similarities and differences between the two types of housing including materials used, size in area, and design.

Materials
- Diagrams and description of Iroquois longhouses (made into a transparency)
- Photograph and description of a Spanish colonial home (made into a transparency)
- Plan of a Traditional Adobe House map
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Objectives
The student will be able to:

1. Compute the area and perimeter of an early Spanish colonial home and a longhouse.
2. Identify similarities and differences between the homes.
3. Have a student locate where the two types of homes are found.

Procedures
Prerequisite Skills: Students should have experience computing area and perimeter.

SESSION ONE
1. Distribute worksheets: Iroquois Longhouse and Spanish Adobe Homes.
2. Read the information on the Iroquois longhouse. Show and discuss the transparency of the diagrams and descriptions of Iroquois longhouses.
3. Read the information on the Spanish colonial home. Show and discuss the transparency of the photograph and description of a Spanish colonial home as well as the transparency of Plan of a Traditional Adobe House map.
4. Have a student locate the two types of homes on a transparency of a US map.
5. Discuss the similarities and differences between the two types of homes. Include a discussion of the materials used and the house design.

SESSION TWO
6. Review the similarities and differences of the two homes.
7. Administer assessments.

Assessment
There are three different assessments in the student packet:
• Longhouse Activity Sheet
• Spanish Adobe House Activity Sheet
• Comparison Activity Sheet
There are also keys for each sheet, and a rubric for grading the math portions.

Geography assessment:
• First 5 questions Longhouse
• First 5 questions Adobe
• First 4 questions Comparison
Each question is worth 1 point.
Students who obtain 11 out of 14 possible points have mastered the geography.

Math assessment:
• Questions 6-8 Longhouse
• Questions 6-8 Adobe
Each of these 6 questions is worth 4 points, with the math rubric sheet explaining how to grade the math questions.
Students who obtain 19 out of the possible 24 points have mastered the math.

Extensions
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Students could build a model of an Iroquois Longhouse. See the following website.
www.nysm.nysed.gov/IroquoisVillage/buildingmodel.html

Students could build a model of an adobe house. See the following website.
www.folklife.si.edu/buildingarts/builddadobe.pdf

Students could calculate the living area of the adobe house given the patio has a length of 67 feet and a width of 52 feet, or students could calculate the living area of the adobe house given the patio dimensions on the plan. (This second option would require that students think a bit for themselves, looking at the plan for a template).

Students could lay out an entire village of longhouses. Then estimate the total population of the village based on the total area measured.

Determining the Area of a Circle (7th Grade)
(Added by Dennis Rees, Peoria School District)
Students can practice determining the area of a circle by using circular home styles.

Materials
- Celtic Round Houses reading
- Graphic of Celtic Round House with Celtic Round House Floor Plan
- Celtic Round House Assessment
- The Native American Tipi reading
- Graphic of Native American Tipi with Tipi Floor Plan

Sources
- Tipi Assessment
- Comparison Assessment
- Answer keys to assessments
- www.nysm.nysed.gov/IroquoisVillage/constructiontwo.html
- www.peace4turtleisland.org/pages/longhouse.htm
- www.cr.nps.gov/twhp/wwwlps/lessons/96ranchos
- www2.cr.nps.gov/tps/briefs/brief05.htm
- www.nmcm.org/features/hfae/adobe/intro/index.htm