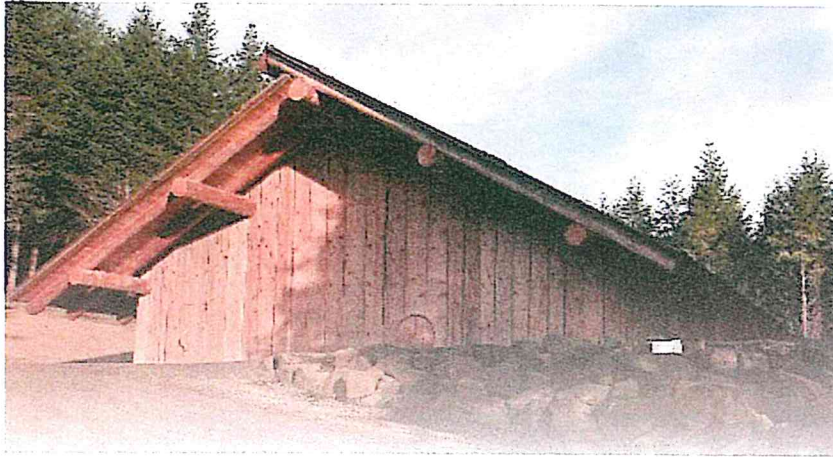


Housing

Plankhouse



Goals: Students will become familiar with the style of homes used by the Grand Ronde Community and the movements of the people during the different seasons.

Oregon Common Core State Standard(s) Met:

- 8.G.A.1 Verify experimentally the properties of rotations, reflections, and translations.
- 8.G.A.2 Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
- 8.G.A.3. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.

Oregon Social Sciences Academic Content Standard(s) Met:

- Geography 8.11 Identify and describe patterns and networks of economic interdependence, migration, and settlement

Objectives:

- Students will be able to construct a reflection and a translation of a plankhouse
- Students will be able to recognize the movements of the people throughout the seasons
- Students will be able to identify what type of mathematical movements are used in a transition time for the Native Americans

LESSON PLAN

Unit: Grand Ronde Tribal History

Lesson Title: Plankhouse Construction

Rational: This lesson will introduce students to the traditional homes of the Grand Ronde Community, the plankhouse, and allow the students to learn about the design of the plankhouse through constructing a plankhouse on a coordinate plane.

Goals: Students will become familiar with the style of homes used by the Grand Ronde Community and the movements of the people during the different seasons.

Oregon Common Core State Standard(s) Met:

- 8.G.A.1 Verify experimentally the properties of rotations, reflections, and translations.
- 8.G.A.2 Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
- 8.G.A.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.

Oregon Social Sciences Academic Content Standard(s) Met:

- Geography 8.11 Identify and describe patterns and networks of economic interdependence, migration, and settlement

Objectives:

- Students will be able to construct a reflection and a translation of a plankhouse
- Students will be able to recognize the movements of the people throughout the seasons
- Students will be able to identify what type of mathematical movements are used in a transition time for the Native Americans

Materials Needed/Preparation/Equipment:

- | | |
|-------------------------------------|--|
| ✓ Plankhouse Lesson Read Aloud | ✓ Plankhouse Construction Worksheet answer key |
| ✓ Vocabulary Sheet | |
| ✓ Plankhouse Construction Worksheet | ✓ Plankhouse Construction Graph answer key |
| ✓ Plankhouse Construction Graph | |

Time: 50 minutes



LESSON PLAN

Anticipatory Set: *Note: Prior to beginning the lesson, you will need a copy of the worksheet, the graph, and the vocabulary sheet for each student. Teachers may also want to construct a mini lesson to review coordinate graphing and also transformations. Begin the lesson by asking students the types of homes that they believe the people of the Grand Ronde Community would have lived in.

➤ **Lesson Steps:**

1. Pass out the vocabulary sheet to all students. Begin the Plankhouse Lesson Read Aloud.
2. Once the read aloud is finished, have students compare the homes they live in to the Plankhouse. Ask about similarities and differences between the two.
3. Pass out the worksheet and the graph to each student.
4. Read the “Directions” portion of the worksheet out loud to the class.
5. Allow students to work on their construction of a plankhouse.

Differentiation: Students may want to work in groups on the graphing worksheet so that they can discuss the questions and compare coordinate points.

Early Finisher Activities: Students could color their plankhouses in a traditional way and add details to their graphs. There is also a Plankhouse crossword that students could work on after completing their graphs.

Assessment:

	Yes	No	Notes
Student was able to participate in the comparison and contrast portion of the class.			
Student was able to construct a reflection and a translation of a plankhouse.			
Students were able to complete the Plankhouse Construction worksheet with a 90% proficiency.			



LESSON PLAN

Attachments:

- ✓ Plankhouse Lesson Read Aloud
- ✓ Vocabulary Sheet
- ✓ Plankhouse Construction Worksheet
- ✓ Plankhouse Construction Graph
- ✓ Plankhouse Construction Worksheet
answer key
- ✓ Plankhouse Construction Graph
answer key
- ✓ Plankhouse Crossword Puzzle



Native people lived in different styles of houses depending on where they were located and what time of year it was. For most Western Oregon tribes, they would have a winter home and summer dwellings. The winter home, often called a plankhouse, was more permanent and



it was usually very large. Many houses on the Columbia River could be anywhere from 80-100 feet long and were suitable for many families to live in. Many generations would live together in this house, sometimes up to 15 families. They would all be related through either the mother's side of the family or the father's side of the family. The larger the house, the more important the family was. Sometimes they would even name the larger plankhouse in order to show the importance that they held.

The homes were usually made of cedar planks. There would be four corner posts for support, and in the larger homes there would sometimes even be a pole in the middle to provide extra support for the structure. Often times the Native people would excavate or dig out a space that was 1-5 feet underground before building a plankhouse in that space. The opening of the plankhouse was a circular door close to the ground. Many wonder why the door is circular. The door is circular due to the fact that invaders would have to bend over to enter the house which made them vulnerable and easier to defend against.

Inside the home, the space was divided into smaller family areas using woven mats made out of plant material. Sleeping bunks were placed along the outer walls with fire pits in the middle of the house. The fire would warm the house and also provide a small amount of lighting. Cattail and tule mats were used as mattresses as well as for sitting on the floor. They also used the mats along the walls to block the winter winds. The floor of the house was the earth. It would often be smoothed down with clay that was slightly polished to create a more suitable surface.

Your rank in the family determined where you lived in the house. Each house had a leader who was chosen by the group. This person would often live near the rear of the plankhouse. The most important or the eldest person lived in the very back of the plankhouse. The slaves or lowest ranking members in the house often lived towards the front. It was designed this way so that the invaders would have to make it through the stronger and younger members of the house in order to make it back to where the elders lived. Some tribes in the south would have the men and women live in separate households.

Summer homes were less permanent structures. They were built so that they could easily be put up, taken down, and moved. They were made of wood frames with cattail or tule mats covering the outside. Sometimes they were even covered with only tree boughs when nothing more was needed. To start these homes, Native people would build a fire and then build the home around the fire. It was necessary for the dwellings to be moved in order for the Native people to travel and collect food during the spring and summer.

Today, The Confederated Tribes of Grand Ronde has a plankhouse named achaf-hammi which means "house made of cedar" in the Tualatin Kalapuya language. It was built to represent our ancestors from the North and the South. This house is not lived in on a daily basis. It is used for cultural ceremonies, weddings, funerals, and educational purposes as well. It is one of our most treasured possessions, and it is something that the whole Tribe is proud of.

NAME: _____

DATE: _____

Plankhouse Construction

Directions: On your graph sheet, you have half of a plankhouse. Follow the instructions below to help the Tribe construct the rest of their plankhouse.

1. Reflect each **star** point given across the y-axis so that you construct the other half of the plankhouse. Make sure that it looks exactly like the half that they have already built. Draw this on the graph paper.

2. Give the coordinates of the new points from the top of the house to the bottom.

Tip of the Roof: (,)

Where the Roof Meets the Wall: (,)

Right Tip of the Roof: (,)

Bottom Right Corner: (,)

Middle Point: (,)

3. If you were to build this house in real life, what types of materials would be used?

4. The house you have just helped build is the family's winter home. For the summer, they have started building a new home. The **black** point you are given on your graph is the tip of the roof. The family needs to build this summer home so that it is exactly the same size as their winter home. Using your graph paper, help them construct their summer home.

5. Give the coordinates of their summer home.

Tip of the Roof: (,)

Where the Roof Meets the Walls: (,) (,)

Outer Tips of the Roof: (,) (,)

Bottom Corners: (,) (,)

6. While you were helping to build the summer home, the family sent you out to gather more resources. What type of materials would you have needed to gather to help build the home?
7. What type of movement did the family go through to get to their summer home? (Circle One)

Rotation

Translation

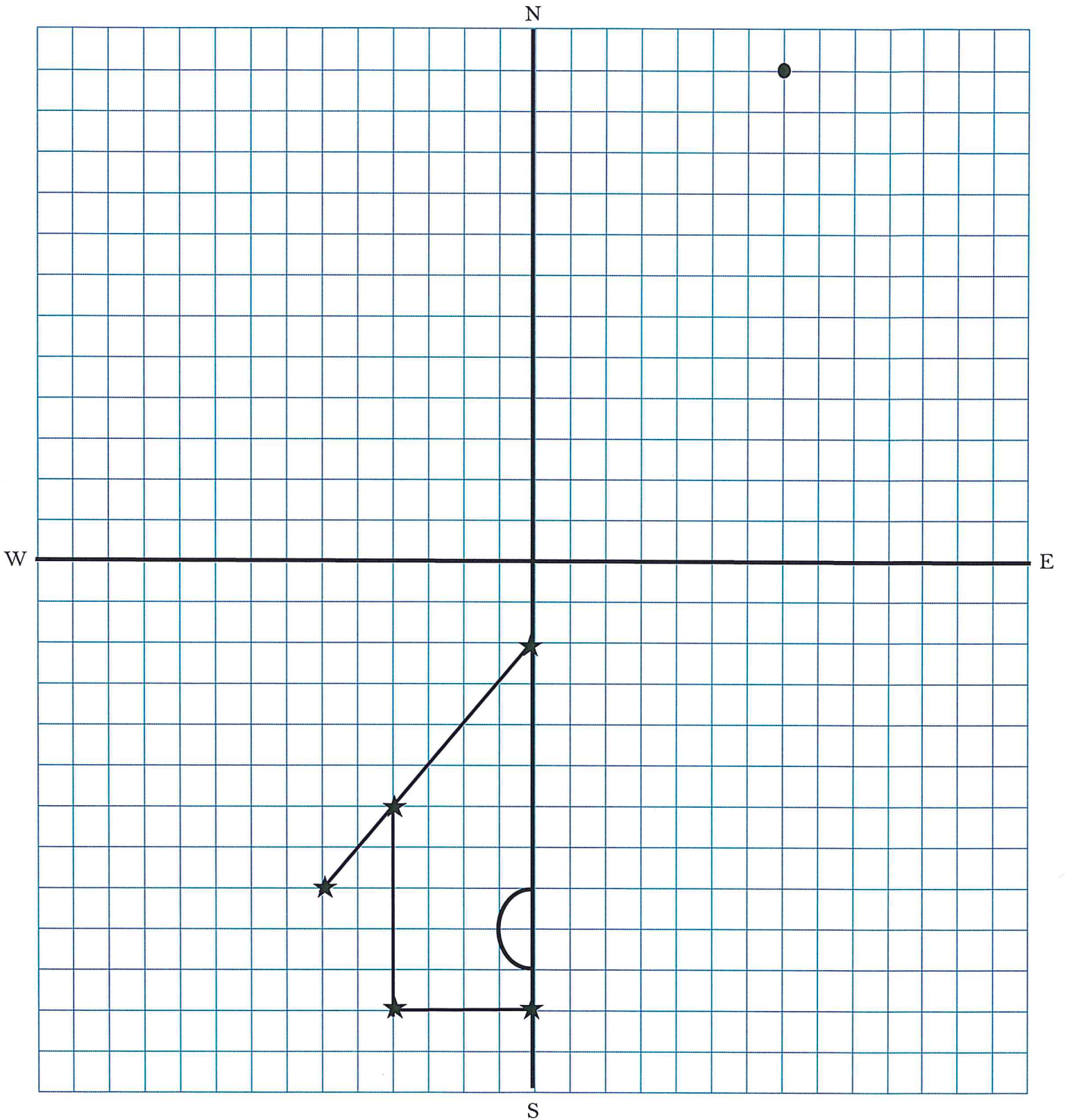
Reflection

Why:

8. The family must tell others how to come to their summer home. Below, describe the movement that the others would have to go through to visit the family at their summer home. (One line on the graph is equal to one mile)
9. Based on what you learned today, do you think that this family would stay in this home all summer? Why or why not?

NAME _____

Plankhouse Construction



NAME: _____

DATE: _____

Plankhouse Construction ANSWER KEY

Directions: On your graph sheet, you have half of a plankhouse. Follow the instructions below to help the Tribe construct the rest of their plankhouse.

1. Reflect each **star** point given across the y-axis so that you construct the other half of the plankhouse. Make sure that it looks exactly like the half that they have already built. Draw this on the graph paper.

2. Give the coordinates of the new points from the top of the house to the bottom.

Tip of the Roof: (0, -2)

Where the Roof Meets the Wall: (4, -6)

Right Tip of the Roof: (6, -8)

Bottom Right Corner: (4, -11)

Middle Point: (0, -11)

3. If you were to build this house in real life, what types of materials would be used?

Cedar Planks/Trees

4. The house you have just helped build is the family's winter home. For the summer, they have started building a new home. The **black** point you are given on your graph is the tip of the roof. The family needs to build this summer home so that it is exactly the same size as their winter home. Using your graph paper, help them construct their summer home.

5. Give the coordinates of their summer home.

Tip of the Roof: (7, 12)

Where the Roof Meets the Walls: (3, 8) (11, 8)

Outer Tips of the Roof: (1, 6) (13, 6)

Bottom Corners: (3, 3) (11, 3)

6. While you were helping to build the summer home, the family sent you out to gather more resources. What type of materials would you have needed to gather to help build the home?

Cattail and Tule Mats, Tree Boughs, Poles from Trees

7. What type of movement did the family go through to get to their summer home? (Circle One) _____

Rotation

Translation

Reflection

Why:

The house is being moved, or slid, across the coordinate plane. Every point and every line is moved the same distance.

8. The family must tell others how to come to their summer home. Below, describe the movement that the others would have to go through to visit the family at their summer home. (One line on the graph is equal to one mile)

The others would have to go 14 miles north and 7 miles east.

9. Based on what you learned today, do you think that this family would stay in this home all summer? Why or why not?

The family would not stay in this home all summer because they must travel to follow their food sources.

NAME _____

Plankhouse Construction

