

Social Studies Lesson Plan

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Lesson Title: 'Measurements in Basket Weaving'

Lesson Topic: Mathematics

Social Studies Major Content Area(s):

How are you connecting the lesson to...

History: Historically, Native Americans used baskets to carry various products, such as fish. We will have students represent carrying salmon in the basket to measure the volume of the baskets.

Geography: These lessons will take place on the west coast of Washington near the ocean, so we are presenting the ocean fish being carried by baskets.

Economics: Native Americans often traded goods instead of using currency. This activity will give students a glimpse into how these goods were collected and carried for trade.

Civic: Understanding indigenous histories to help make decisions in relation to the basket activity.

Standards Social Studies & Math:

Grade: 5th

- [CCSS.MATH.CONTENT.5.MD.C.3](#)
 - Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
- [CCSS.MATH.CONTENT.5.MD.C.3.A](#)
 - A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
- [CCSS.MATH.CONTENT.5.MD.C.3.B](#)
 - A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
- [CCSS.MATH.CONTENT.5.MD.C.4](#)
 - Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.

Objectives/Big Ideas

Students/community members will...

Know/Understand:

- The importance/value of the Salmon in Native American culture and history
- How Salmon are traditionally caught and harvested in Native American culture
- How traditional Native American baskets are created
- Measurement and conversions using one-inch cubes of meat, pounds, and cups
- How this cultural history impacts their land and community

Be Able to Do:

What skills and habits of mind will this lesson help develop?

- Create their own traditional Native American basket.
- Critically think about the relationship between basketry and the Native American history and culture in the area

Eco-Citizenship Focus Area(s):

- Human Rights
- Animal Habitat
- Arts
- Food Security/Sovereignty
- Land
- Water
- Community

Essential Question

- Why are these baskets important to the indigenous people in this area?
- What were these baskets used for? Could they be used for things other than carrying fish?

Sub-essential Questions

- What do you think these baskets were made out of before you could go to the store to buy yarn?
- Are there things in your culture that hold a similar cultural significance?

Connection between School/Community EQ and Classroom/Lesson(s) Sub-EQs:

This lesson connects the school and community by discussing mathematical concepts in relation to local histories and cultures.

Materials Needed:

- Hemp twine
- String/yarn in various colors
- Connecting cubes
- Pencil and paper to work through conversions

Activities/Procedures:

We will begin by showing students a video from the Plateau People's Portal about the history and importance of traditional basket making. This video will also explain how to go about creating the basket and will walk students through the beginning steps of starting their baskets.

Students will then be given time throughout the next 2 weeks to continue working on their baskets.

After the students complete their baskets we will have another discussion on the importance and purpose of the baskets. Specifically we will discuss how baskets were used when catching salmon. The importance of salmon in Native American culture as well as the methods for capture and consumption of these fish.

After this conversation we will have students apply their knowledge of salmon and traditional Native American baskets to a mathematics lesson similar to the one outlined below.

You and a group of friends caught a 30lb salmon, when it was filleted and deboned it created 56 cups of cubed salmon. How much of this salmon would you be able to fit into the basket you created? Use the provided conversions and tools to answer the following questions.

Conversions:

8 unit cubes = 1 cup of Salmon

2 cups of Salmon = 1 pound of Salmon

Questions:

1. How many cubes of Salmon can you fit in your basket?
2. How many cups of Salmon can your basket hold?
3. How many pounds of Salmon can your basket hold?
4. How many friends would you need (with similar sized baskets) to carry all of the Salmon in just one trip?

Assessment/Evaluation

How will I know what students have learned?

Students will be assessed through oral presentations and written worksheets. Students will work in small groups to create baskets and answer the questions above. These written answers will be collected and assessed. After completing the project students will also present their baskets and their findings to the class. This oral presentation will consist of individuals and groups sharing their understanding and thought process throughout the process of creating their baskets, figuring out the dimensions of their baskets, and the conversion methods they used to figure out how much fish fits into their baskets. It will be assessed for completeness and clarity by the teacher.

Support

What do I need to teach this lesson? What might students need to learn within the lesson?

Curriculum/Instructional Coaching: Any curriculum supplements that correspond to Native American Tribes from the area, traditional hunting and gathering practices, or the importance of Salmon.

Community Partner support: Native American Tribe representatives, family members of students with connections to Indigenous peoples.

Other Support: Documentaries/videos on the importance of and creation of traditional Native American baskets.