LESSON PLAN by: Tyler Wolfe

Adapted From: Macmillan/McGraw Hill, Communities: Adventures in Time and Place

Lesson: Science/churning butter

Age or Grade intended: 3rd

Academic Standard(s): 3.1.4- Discuss the results of investigations and consider the explanations of others.
3.1.5- Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one’s own conclusions about findings.

Performance Objectives: 1) Students will understand how butter was made during the Oregon Trail by pioneer women through the success of making their own butter.
2) Students will churn cream into butter using glass jars full of cream and shaking it for 15 minutes.

Advanced Preparation by the Teacher: The teacher needs to read the text book and be able to explain how pioneer women made butter during the Oregon Trail. The teacher also needs to have the proper materials ready for the students to use.

Materials: glass jars, cream (for making butter), bread, butter knives, towels

Procedure

Introduction: Ask students if they ever wondered how they made food on the Oregon Trail since they had no stoves or refrigerators? Ask students if they know how butter is made? Explain how butter is made and how it was made on the Oregon Trail. Explain that the students will be making their own butter in groups. They will then test out how successful they were by tasting it.

Step by Step Plan: 1) Explain to students that pioneer women made butter by hanging milk jars full of cream on the wagons and the shaking from the trail churned the cream enough to create butter.
2) Distribute the glass jars with 1 pint of cream to the groups (or however the desks are arranged)
3) Explain that the students need to keep shaking the jars for about 15 minutes and that they need to take turns so everyone has a chance
4) Once everyone’s butter is thick enough to spread have the students take off the lids and distribute the bread to each student
5) Spread the butter on the pieces of bread so that the students can taste their creation

Closure: Ask the students if their butter tastes any different from the butter at home in their refrigerator. Explain that today’s butter is full of preservatives that make it last
longer and that this is homemade natural butter. Ask the students if they think they could make it on the Oregon Trail. Ask students after observing the cream thickening if they can explain how the butter is made.

**Self Reflection: TBA**

**Assessment:** This assessment can be done formally during the churning process by just making sure everyone participates. At the conclusion of the activity and the closure is taking place, look for completeness of answers and if they are not very accurate the teacher needs to touch a little more on the topic.