

Fort Davis

National Historic Site

National Park Service
U.S. Department of the Interior



Curriculum Materials Grades 6-8

Teacher Notes: Water, Water, Running Water

Topic: Water, Water, Running Water: Learning about the Past through Primary Sources

Objectives and Standards:

Objectives and Standards: Texas Essential Knowledge and Skills (TEKS)

<http://www.tea.state.tx.us/teks/>

Grade 6

Social Studies

113.22: 1,2,,7, 20, 21, 22 ,23

Mathematics

111.22: 2, 11, 12, 13

Grade 7

Social Studies

111.23: 1,5,6,8,9,10,11,19,20,

21,22,23

Mathematics

111.23: 2, 11, 12, 13

Grade 8

Social Studies

111.24: 1, 6,10,1330,31,32

Mathematics

111.24: 2, 11, 12, 13

Materials Needed:

- Historical reading handout for each student or group
- Calculators for checking completed charts

Lesson Activities:

Historic readings/background information:

Water was an important asset and necessity for Fort Davis. When technology developed to provide running water at the fort, the army at Fort Davis took advantage of it. Students will see a water faucet in the Commanding Officer's bath/sewing room when they visit the fort.

Activities and Projects:

Have the students work individually or in groups to read and complete the water usage chart. This activity will give the students practice in calculation, thinking skills, chart reading, and completion. The accuracy of calculations can be checked with a calculator to demonstrate the contrast between past and current technological development. Discuss the students' questions as a class.

Additional Activities:

Students can also develop a graph showing water usage for each unit or entity on the fort. They can use graphs made on graph paper or computer software to develop and print graphs. These graphs could be included in a PowerPoint presentation as a 21st century report to headquarters to persuade headquarters about the need for a state-of-the-art water system for the fort. Students can also research and make a model or a diorama of a water delivery system, either for the fort or a modern city or house. They can also look up current information about water use and conservation in Texas or their state. This could inspire a persuasive writing about the need for intelligent water use and conservation.

Wrap-up and Assessment:

The teacher may use any assessment or grading that is appropriate. A project rubric is available and can be modified to suit this project if desired. Below is an answer key for the water usage chart.

One Company of Infantry		
3 officers	@ 160 galls.	480 galls.
55 enlisted men	@ 10 galls.	550 “
Cooking, scrubbing etc		160 “
Total for one company		1,190 galls.
Total for two companies		2,380 galls.
One Company of Cavalry		
3 Officers	@ 160 galls.	480 galls
65 Enlisted men	@ 10 galls	650 galls
Cooking, Scrubbing,		160 “
65 horses	@ 15 galls.	975 galls
Total for one company		2,265 galls
Total for eight companies		18,120 galls
Summary		
2 Cos. Infantry		2,380 galls
8 Cos. Cavalry		18,120 galls
1 Band		700 galls
Hospital		200 galls.
Q.M. Corral, 40 men @10 = 400 galls, 300 animals @ 15 = 4,500 galls. Shops, Storehouses = 300 galls		5,200 galls
Bakery		300 “
Laundresses		200 “
Comdg. Officer		200 “
Surgeon & Asst. Surgeon, Chaplains, Quartermaster & Adjutant = 5 @160		800
Post Trader		160 galls
Irrigation		14,740 galls
Total Gallons required daily for Post		43,000 galls

1. What measurement abbreviation is different from the one currently used? **galls for gallons (gal.)**
2. This symbol " called ditto was often used to indicate a repeat of the word above. It was used to save time for people writing by hand. It is rare today because of computers. Which mode of communication would you rather use—handwriting or computer word processing. Tell why you think computers might have developed to make written communication easier. **Accept appropriate answers**

that include indications that inventions are generally created to solve a problem or make life easier. Handwriting especially with pen and ink is tedious and less easily read.

3. Consider the issue of water consumption. Why was an officer allowed 160 gallons of water, an enlisted man only 10 gallons, and a horse 15 gallons? *As the saying in the army goes, RHIP, or rank has its privileges. Remember, each officer had a house and kitchen, servant, sometimes a family, and laundry that needed to be done.*

4. Why was so much water allowed for irrigation? What do you think the army was irrigating that was so important?

Vegetable gardens. Vegetables helped control diseases such as scurvy.

6. As you study the report some questions may come to mind about the totals and usage. Write one question that you have and discuss it with your class. **Accept appropriate answers. One question might include:** “Why doesn’t the hospital get more water?” Knowledge of sterilization and sanitary conditions was limited, but it still seems there should be more.