

## CMaP Project Draft

**Project Description:** Valerie Bobo and Kathy Worthen are planning a day long culminating activity to finish our Westward Ho simulation. We are teaching at separate schools and we would like to have our students come together for this activity. We plan to have our students participate together with Westward Ho, staying in touch through a blog, email, and webcams. We plan to have some authentic trail time at the end of our simulated journey west. Just east of Lapoint and west of Maeser there are many trails and vast rolling hills without homes or improvements. Dressed in period clothing of the 1850's, our students will use GPS waypoints to travel by foot to four different areas. At each area they will have a "traveling fate" in association with the end of the Westward Ho guidelines. The fates will be related to the natural terrain or landforms, animal habitats, and the impact of litter to this area from present day travelers. There will be questions that will necessitate data gathering for further discussion back at the schools. Pictures will be taken at each stop and journals will be kept.

**Community Issue:** Impact of litter on the natural habitat and terrain of rural Lapoint.

**Community Partners:** UDOT/ Adopt a highway; BLM.

**Project objectives:** To give our students a "real experience" of overland travel and cooking outdoors. We would also like to have the students reflect on the past 150 years of varied use of this rural land and the changes that have occurred in those past 150 years.

**Core Objectives:**

### Social Studies

#### Standard 4

Students analyze the contributions of key individuals and groups on the development of the New World and the United States.

#### **Objective 1**

Analyze the role of American Indians, explorers, and leaders in the development of the New World.

- Explain the contributions of American Indians to the success of colonization.
- Describe the role of early explorers in North America.
- Explain the reasons early leaders established the first colonies; e.g., religion, expansion, economics

#### Standard 9

Students analyze the influence of geographic features on the building of the New World and the United States.

#### **Objective 1**

Analyze how physical features affected the expansion of North America.

- Show how geographic features influenced location of settlements; e.g., water, mountains, plains, deserts.
- Identify the impact of physical features on agriculture and industry in the colonies.
- Analyze how geographic features and natural resources led to major land acquisitions

The students wrote daily diary entries about the travel and fates, the decisions they made, and how things were going in their families.

## Language Arts:

### Standard 7

Comprehension-Students understand, interpret, and analyze narrative and informational grade level text.

#### **Objective 3**

Recognize and use features of narrative and informational text.

- Identify characters, setting, sequence of events, problem/resolution.
- Compare and contrast elements of different genres: fairy tales, poems, realistic fiction, fantasy, fables, folk tales, tall tales, biographies, historical fiction, science fiction).
- Identify information from text, headings, subheadings, diagrams, charts, captions, graphs, table of contents, index, and glossary.
- Identify different structures in text (e.g., description, problem/solution, compare/contrast, cause/effect, order of importance, time, geographic classification).
- Locate information from a variety of informational text (e.g., newspapers, magazines, textbooks, biographies, Internet, other resources).

### Standard 8

Writing-Students write daily to communicate effectively for a variety of purposes and audiences.

#### **Objective 1**

Prepare to write by gathering and organizing information and ideas (pre-writing).

- Generate ideas for writing by reading, discussing, researching, and reflecting on personal experiences.
- Select and narrow a topic from generated ideas.
- Identify audience, purpose, and form for writing.
- Use a variety of graphic organizers to organize information from multiple sources.
- surface area in square units.

#### **Objective 5**

Use fluent and legible handwriting to communicate.

- Write using upper- and lower-case cursive letters using proper form, proportions, and spacing.
- Increase fluency with cursive handwriting.
- Produce legible documents with manuscript or cursive handwriting.

#### **Objective 6**

Write in different forms and genres.

- a. Produce personal writing (e.g., journals, personal experiences, eyewitness accounts, memoirs, literature responses).
- b. Produce traditional and imaginative stories, narrative and formula poetry.
- c. Produce informational text (e.g., book reports, cause and effect reports, compare and contrast essays, observational/research reports, content area reports, biographies, historical fiction, summaries).
- d. Produce writing to persuade (e.g., essays, editorials, speeches, TV scripts, responses to various media).
- e. Produce functional texts (e.g., newspaper and newsletter articles, e-mails, simple PowerPoint presentations, memos, agendas, bulletins).
- f. Share writing with others incorporating relevant illustrations, photos, charts, diagrams, and/or graphs to add meaning.
- g. Publish 6-8 individual products.

## **Math:**

### **Standard 1**

Students will expand number sense to include integers and perform operations with whole numbers, simple fractions, and decimals.

#### **Objective 1**

Represent whole numbers and decimals from thousandths to one billion, fractions, percents, and integers.

- a. Read and write numbers in standard and expanded form.
- b. Demonstrate multiple ways to represent whole numbers, decimals, fractions, percents, and integers using models and symbolic representations (e.g.,  $108 = 2 \times 50 + 8$ ;  $108 = 10^2 + 8$ ;  $90\% = 90$  out of 100 squares on a hundred chart).
- c. Identify, read, and locate fractions, mixed numbers, decimals, and integers on the number line.
- d. Represent repeated factors using exponents.
- e. Describe situations where integers could be used in the students' environment.

#### **Objective 2**

Explain relationships and equivalencies among integers, fractions, decimals, and percents.

- a. Compare fractions by finding a common denominator.
- b. Order integers, fractions (including mixed numbers), and decimals using a variety of methods, including the number line.
- c. Rewrite mixed numbers and improper fractions from one form to the other and represent each using regions, sets of objects, or line segments.
- d. Represent commonly used fractions as decimals and percents in a variety of ways (e.g., models, fraction strips, pictures, calculators, algorithms).
- e. Model and calculate equivalent forms of a fraction (including simplest form).
- f. Rename whole numbers as fractions with different denominators (e.g.,  $5 = 5/1$ ,  $3 = 6/2$ ,  $1 = 7/7$ ).

### **Standard 4**

Students will determine area of polygons and surface area and volume of three-dimensional shapes.

### **Objective 1**

Determine the area of polygons and apply to real-world problems.

- a. Determine the area of a trapezoid by the composition and decomposition of rectangles, triangles, and parallelograms.
- b. Determine the area of irregular and regular polygons by the composition and decomposition of rectangles, triangles, and parallelograms.
- c. Compare areas of polygons using different units of measure within the same measurement system (e.g., square feet, square yards).

### **Objective 2**

Recognize, describe, and determine surface area and volume of three-dimensional shapes.

- a. Quantify volume by finding the total number of same-sized units of volume needed to fill the space without gaps or overlaps.
- b. Recognize that a cube having a 1 unit edge is the standard unit for measuring volume expressed as a cubic unit.
- c. Derive and use the formula to determine the volume of a right prism with a triangular or rectangular base.
- d. Relate the formulas for the areas of triangles, rectangles, or parallelograms to the surface area of a right prism.

Derive and use the formula to determine the surface area of a right prism and express.

## Science

### **Standard 2**

**Students will understand that volcanoes, earthquakes, uplift, weathering, and erosion reshape Earth's surface.**

**Objective 1** Describe how weathering and erosion change Earth's surface.

- a. Identify the objects, processes, or forces that weather and erode Earth's surface (e.g., ice, plants, animals, abrasion, gravity, water, wind).
- b. Describe how geological features (e.g., valleys, canyons, buttes, arches) are changed through erosion (e.g., waves, wind, glaciers, gravity, running water).
- c. Explain the relationship between time and specific geological changes.

**Objective 2** Explain how volcanoes, earthquakes, and uplift affect Earth's surface.

- a. Identify specific geological features created by volcanoes, earthquakes, and uplift.
- b. Give examples of different landforms that are formed by volcanoes, earthquakes, and uplift (e.g., mountains, valleys, new lakes, canyons).
- c. Describe how volcanoes, earthquakes, and uplift change landforms.
- d. Cite examples of how technology is used to predict volcanoes and earthquakes.

**Objective 3** Relate the building up and breaking down of Earth's surface over time to the various physical land features.

- a. Explain how layers of exposed rock, such as those observed in the Grand Canyon, are the result of natural processes acting over long periods of time.
- b. Describe the role of deposition in the processes that change Earth's surface.

Essential Questions: As a pioneer, what do you think of this land and how has it changed? What are the things that have impacted it in the past 150 years, why or how?

Assessments: The students will be required to keep a journal for the entire Westward Ho experience. After the culminating activity they will be required to submit a power point or a photo story of their experience. **Rubric Attached**

Project Products: GPS units, handcarts, supplies, journals, digital cameras (NUES).

Project timeline: Within the Westward Ho framework, much of the planning for this day has already been done. The students will travel to the designated area to start their trek to the waypoints. There will be four waypoints and probably four-six groups starting at different places. We will have parent volunteers to act as guides and have the way points previously set up and ready to receive travelers. At the last waypoint, student groups will get one more waypoint. The idea is to have them all come together at the last waypoint for their meal. There we will discuss the other waypoints and the travel fates. After preparing and sharing a meal, we will go back to our respective schools and begin the power point/photo stories. The project will take the full day, and possibly 2-4 class periods to put the power points/ photo stories together.

Resources needed: Many good helpers! GPS Units, handcarts, information from UDOT and the BLM, supportive principals.

Skills Required: Effective use of GPS units, moderate physical endurance, basic first aid, minimum camping/cooking skills.

Project Team Member Roles: Teachers: Valerie Bobo, Kathy Worthen—trail guides  
Students: Pre-assigned roles for Westward Ho.  
Partners: Information and supportive roles.

Celebration/Presentation: Possibly another joint meeting of the classes to share their power points/photo stories. These will also be presented at our Author's Tea.

Project evaluation: The students will do a peer evaluation, a self evaluation and finally we will give an evaluation according to the rubric.

Project Bibliography:

Westward Ho Project: <http://www.cyberbee.com/wwho/>

Wagon Mistress' Site: <http://fs.meadowbrook28.net/~dandre/westward/westwardho.htm>

Rodeo Rich's Website: <http://www.beacon-christian.org/rodeorich.htm>

Google group Westward Ho Project: (must sign in or be a member)

<http://groups.google.com/group/westward-ho-2008/web/links-to-resources-and-blogs>

Oregon Trail Overview Map:

<http://www.endoftheoregontrail.org/maplibrary/oregontrail.html>

Map resource to plan our trek: <http://gis.utah.gov/>

Plans for future CMAP activities: Mapping a possible walking track around our school or at a nearby community park.

## Multimedia Project : Westward Ho Trek Simulation Rubric

Teacher Name: **Mrs. Bobo and Mrs. Worthen**

Student Name: \_\_\_\_\_

CATEGORY	4	3	2	1
<b>Requirements</b>	All requirements are met and exceeded.	All requirements are met.	One requirement was not completely met.	More than one requirement was not completely met.
<b>Workload</b>	The workload is divided and shared equally by all team members.	The workload is divided and shared fairly by all team members, though workloads may vary from person to person.	The workload was divided, but one person in the group is viewed as not doing his/her fair share of the work.	The workload was not divided OR several people in the group are viewed as not doing their fair share of the work.
<b>Journals</b>	No misspellings or grammatical errors.	Three or fewer misspellings and/or mechanical errors.	Four misspellings and/or grammatical errors.	More than 4 errors in spelling or grammar.
<b>Final Product Photo Story or PowerPoint</b>	Makes excellent use of font, color, graphics, effects, etc. to enhance the presentation.	Makes good use of font, color, graphics, effects, etc. to enhance to presentation.	Makes use of font, color, graphics, effects, etc. but occasionally these detract from the presentation content.	Use of font, color, graphics, effects etc. but these often distract from the presentaion content.
<b>Content</b>	Covers topic in-depth with details and examples. Subject knowledge is excellent.	Includes essential knowledge about the topic. Subject knowledge appears to be good.	Includes essential information about the topic but there are 1-2 factual errors.	Content is minimal OR there are several factual errors.
<b>GPS Waypoints</b>	All waypoints are gathered and recorded with descriptive information in the Journal.	3 to 4 waypoints are gathered and recorded with some descriptive information in the Journal.	1 to 2 waypoints are gathered and recorded with very little information in the Journal.	No waypoints are gathered and recorded with little or no descriptive information in the Journal.