

# **Collaborative Geography: Creating an Interactive Map of Vermont**

## **Grade Cluster – 6-8**

### **NETS-S - 2 - Communication and Collaboration**

#### **Quick Look:**

During a four-week collaboration students from around the state will work together to create an interactive Google Earth map of Vermont. The map will include information about the geography of each region of the state delivered in a multimedia format.

#### **Scenario:**

Students in Mr. Coughlin's 7th grade social studies class are doing more than studying Vermont geography; they are making that topic more interesting and accessible for other Vermont children. After their introduction to the principles of geography, the students are engaged in a collaborative effort, designed to help them gain a better understanding of the geography of Vermont, through research and the creation of a [Google Earth](#) map with interactive elements.

Mr. Coughlin's students are working with six other classes from around the state, who joined the project after responding to an invitation posted on the [Vermont Social Studies Educator Network](#). A [Ning](#) social network is used as the home base for the entire project. It serves as the central location for teacher planning, assessment tools, communication strategies, student work, and feedback. The students and teachers use the Ning forum to determine the types of geographic information they want to collect about Vermont's geography. The topics may include Vermont's physiographic regions, geology, physical features, weather, animals, trees, rocks and minerals and the cultural geography of the state.

Mr. Coughlin's students have been divided into small work groups. Each group is responsible for conducting research on their geographic topic for the northwest region of the state. Along with online research on sites such as [NetState](#), the [Vermont Geography Portal](#) and [Wikipedia](#), students will be encouraged to communicate via e-mail or Skype with the [Vermont Center for Geographic Information](#), the geography departments at [UVM](#), [St. Michael's College](#), [Middlebury College](#), and other educational institutions in Vermont, in order to gather information and have their questions answered. (2a, 2b) Students share their information with the teams from the other participating schools who are researching the same topic. For example, the school from the central region of Vermont shares what they have learned about the geology of that region with the geology teams from the other schools. Each team compares and contrasts the information sent by the other schools with their own information.

Students submit the first drafts of their reports for editing via *EtherPad*, an online, collaborative real-time editor, to students in two of the other participating schools. (2a, 2b, 2d, 6b, 6c, 6d) Students use feedback on their writing to revise their content and then record audio versions of their reports with *Audacity*. If time allows, royalty free music, from sites like MusOpen, is located or created online with JamStudio, and added to enhance the recordings. The audio versions of the research reports are uploaded to the project Ning and students receive feedback on the quality of their recordings and make revisions as needed. (2a, 2b, 2d, 6a, 6b, 6c, 6d)

Students compile graphics to accompany their information. They create and scan original artwork, use digital cameras to capture relevant photographs or locate photographs on Flickr. Flickr photographs have appropriate Creative Commons licenses. Students also use Google Earth or Google Map screen shots, to clarify their information. (6a, 6b, 6c, 6d)

Students upload their recordings and accompanying images to ed.Voicethread. The resulting Voicethreads are added to placemarks in Google Earth, along with image overlays that help to identify key locations and explain important geographic features. All of the placemarks and overlays created by a school for a particular region are saved as a single KMZ file. The collection of KMZ files from all the regions are combined into a single Google Earth KMZ file by the initiating teacher and shared with all the participants. This file includes an introduction to the project and explanation of how Vermont teachers and students can make use of this interactive map of Vermont in their studies. (2a, 2b, 2d, 6a, 6c, 6d)

All of the participating schools visit the other regions of the state through this resulting interactive map of Vermont and leave constructive comments and/or questions for clarification on each of the Voicethreads. Students are given opportunities to respond to these comments and questions for as long as the discussion warrants. (2a, 2b, 2d)

The finished project is submitted for use by all Vermont students to the resources section of Vermont's Riverdeep Learning Village, the Vermont Center for Geographic Information, and The Vermont Social Studies Educator Network. (2a, 2b)

As a culminating activity, students will be brought together through the Learning Network of Vermont for an online videoconference between all seven schools. Students will have a chance to see and speak to each other directly, talk about the high and low points of the project, and make suggestions for the best ways to improve on the project as other students build upon what they started. (2a, 2b, 2d, 6a, 6c, 6d)

**Student Standards** – The following NETS-S are noted in the scenario:

2. Communication and Collaboration - A, B, D
6. Technology Operations and Concepts – A, B, C, D

**Teacher Standards** – Teachers who teach this unit address the following NETS-T:

1. Facilitate and Inspire Student Learning and Creativity – A, B, C, D
2. Design and Develop Digital-Age Learning Experiences and Assessments - A
3. Model Digital-Age Work and Learning – A, B, C, D
5. Engage in Professional Growth and Leadership – A, B, D

## **Content Grade Expectations**

The scenario writer has identified the following content grade expectations that s/he felt might be assessed in this scenario. In most of these scenarios, there may well be opportunities to assess other or additional content grade expectations across a variety of disciplines. If you are interested in developing a unit or lessons based on the following scenario, and you don't see any grade expectations in your content area, we encourage you to capture the ideas presented in the scenario and make it your own by adding components that address the grade expectations you are most interested in assessing.

### **H&SS7-8:11 - Students interpret geography and solve geographic problems by...**

- Identifying characteristics of states, countries, and continents using resources such as landmarks, models, and different kinds of maps, photographs, atlases, internet, video, reference materials, GIS and mental mapping.
- Using absolute and relative location to identifying major mountain ranges, major rivers, and major climate and vegetation zones and the effects of these on settlement patterns
- Interpreting a variety of effective representations of the earth such as maps, globes, and photographs and project future changes (e.g., physical, political, topographic, computer generated, and special purpose maps).
- Identifying and using basic elements of a variety of maps.
- Using grid systems to locate places on maps and globes
- Comparing and contrasting spatial patterns or landforms using geographic resources (e.g., comparing water usage between nations).

### **H&SS7-8:12 - Students show understanding of human interaction with the environment over time by...**

- Examining multiple factors in the interaction of human and the environment (e.g., population size, farmland, and food production)