

# Case Details

**Case Title:**

Survivor mountain series: Mystic mountains

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**Grade Level(s):**

Middle School

**Subject(s):**

Earth Science

**Summary:**

Five teenagers are chosen to participate in the Survivor Mountain series on television. They are challenged to survive in the mountains for a month, but their supplies are limited. Will they learn enough about the mountain and its resources to make it on their own for that long? With teamwork and knowledge of topographic maps, landforms, natural resources, latitude and longitude, and survival, they just might be able to win the prize with your help!

**Suggested Citation:**

Brooks, B. M., & Dundee, S. B. (2008). *Survivor mountain series: Mystic mountains*. Retrieved June 03, 2012 from Emory University, CASES Online Web site: [http://www.cse.emory.edu/cases/casedisplay.cfm?case\\_id=1](http://www.cse.emory.edu/cases/casedisplay.cfm?case_id=1)

**Notes:**

Mystic Mountains is the first of 2 cases in the Survivor Mountain Series, based on the popular television show, "Survivor." The case can be used independently, or in conjunction with the second case: [Quivering Shivering Alps](#).

**Learning Objectives:**

1. Identify landforms (plain, mountain, mountain range, plateau)
2. Represent landforms, landform regions, elevation, contour intervals, depressions, relief, and slope on a topographic map
3. Construct and use a topographic map and key (scale and symbols)
4. Describe and use latitude and longitude
5. Identify natural resources
6. Identify items in a survival kit.
7. Describe how topographic maps are constructed (made by reports of travelers, airplane photos, satellite images, computer mapping)
8. Describe how landforms and other features of Earth's surface are represented on a topographic map.

**National/State Standards:**

*Georgia Quality Core Curriculum Standards Addressed:*

1 Topic: Scientific Inquiry Process. Standard: Uses process skills of observing, classifying, communicating, measuring, predicting, inferring, identifying, and manipulating variables. Also uses skills of recording, analyzing and operationally defining, formulating models, experimenting, constructing hypotheses, and drawing conclusions.

4 Topic: Reference Skills. Standard: Selects and uses multiple types of print and non-print sources for information on science topics

10 Topic: Geology. Standard: Recognizes major symbols, series, scales, and colors conventionally used to represent features on topographic maps and various earth models.

*Georgia Performance Standards*

S7CS1. Students will explore of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. (NSES Content Standard A)

S7CS6. Students will communicate scientific ideas and activities clearly. (NSES Content Standard A)

S7CS7. Students will question scientific claims and arguments effectively. (NSES Content Standard A) a. Question claims based on vague attributions (such as Leading doctors say... ) or on statements made by people outside the area of their particular expertise. b. Identify the flaws of reasoning that are based on poorly designed research (i.e., facts intermingled with opinion, conclusions based on insufficient evidence)

S7CS8. Students will investigate the characteristics of scientific knowledge and how that knowledge is achieved. (NSES Content Standard A) Students will apply the following to scientific concepts: a. When similar investigations give different results, the scientific challenge is to judge whether the differences are trivial or significant, which often requires further study. Even with similar results, scientists may wait until an investigation has been repeated many times before accepting the results as meaningful. b. When new experimental results are inconsistent with an existing, well-established theory, scientists may pursue further experimentation to determine whether the results are flawed or the theory requires modification. c. As prevailing theories are challenged by new information, scientific knowledge may change.

S6E3. Students will recognize the significant role of water in earth processes. (NSES Content Standard D)

S6E4. Students will understand how the distribution of land and oceans affects climate and weather. (NSES Content Standard D)