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**Topographic Map Unit Plan**  
**Grade Level-** 9 through 12  
**Time to complete:** 4 Blocks

**Objective:** The students will be able to identify features on a topographic map, understand contour lines, decipher contour intervals, and be able to complete a topographic map lab.

**Resources:** PowerPoint [  
7.5 Minute Maps (area of your choice)

**Procedure:** Introduce topographic maps and their uses by scientists (including archaeologists!) and how they display three dimensional features of the landscape on a 2-D piece of paper. Introduce contour lines, and how to calculate contour intervals, while explaining the uses of elevation. Explain the symbols used on a contour map and the different scales. Scale is important, most standard of learning exams focus on questions of scale.

**Assessment I:** Topographic map lab I.

**Materials:** 7.5 minute maps. Choose 3 different maps, but have enough to break your class into groups of three. Have the students identify the following:

1. Scale of the map
2. Latitude and Longitude
3. Date of the map
4. Towns, mountains, rivers, railroads, etc
5. Distances between towns
6. Identify swamps, forests, wildlife reserves
7. Identify historical features

Grade the exercise according to completeness and accuracy.

**Assessment II:** Topographic Map Lab II.

**Materials:** Local 7.5 Topographic maps, one per group of 3. Use a photocopy and place letters on various features of the map to correspond with the number of groups in the room. Choose areas such as floodplains, mountains, valleys, rivers, towns, forests, etc

**Scenario:** Your group is part of an archaeological research team tasked with identifying a previously unknown people. Artifacts from several areas (Group letter on the map) have been found. It is your job to assess the situation of these sites and make judgments based on their location as to what type of people they might have been. Features to identify with your site:

1. Is it on a floodplain?
2. Is it on a mountain?
3. Which direction is the nearest source of water? What is the name of it? Is it a river or stream?
4. Is your site in a forest or open field?
5. What is the nearest town to your site? How far is it?
6. Is your site on a slope? Calculate the slope using the rise over run formula.
7. Are there any lakes in the area of your site?
8. Are there any swamps? Is your site in a swamp?
9. Is there another group's site near yours? What direction is it in?
10. What inferences can be made about your site and the people that might have lived there? Use your imagination!

This unit plan can be integrated into a lesson on GPS and the creation of topographic maps.