

(Please Print) Scout's Name _____ Phone _____ Class Time _____
 Address _____ City _____ Zip _____

Geology
Requirements Sheet
Merit Badge Powwow 2009

The scout is to read the **Geology Merit Badge pamphlet before the Powwow** (2005 edition or later). Some requirements may take up to 90 days to complete before coming to the Powwow. Read all the requirements below and bring necessary items to guarantee passing off the merit badge on the day of the Powwow. Bring to class paper, pen or pencil, and any other items asked for. Write your name, merit badge and class time (9:00 or 1:00) on **every** paper or project. (If there are any questions pertaining to requirements, the most recent Boy Scout Requirements handbook will always be used).

Recommended Requirments to complete before Powwow

Completed:

4. Do ONE of the following:
 - a. With your parent's and Scout Masters approval, visit with a geologist, land-use planner, or civil engineer. Discuss this professional's work and the tools required in this line of work. Learn about a project that this person is now working on, and ask to see reports and maps created for this project. Discuss with your counselor what you have learned.
 - b. Learn about the career opportunities available in geology. Pick one that interests you and explain how to prepare for such a career. Discuss what courses might be useful for such a career. You may use resources found on the Internet (with your parent's permission), at the library, in books and articles from periodicals, from television programs, and at school.

4 _____
 Signature of counselor _____ Date _____

Requirments that will be passed off at the Powwow

Completed:

1. Define geology. Discuss how geologists learn about rock formations. In geology, explain why the study of the present is important to understanding the past.
2. Pick three resources that can be extracted or mined from Earth for commercial use. Discuss with your counselor how each product is discovered and processed.
3. Review a geologic map of your area with your counselor and discuss the different rock types and estimated ages of rocks represented. Determine whether the rocks are horizontal, folded, or faulted, and explain how you arrived at your conclusion.

1 _____
 Signature of counselor _____ Date _____

2 _____
 Signature of counselor _____ Date _____

3 _____
 Signature of counselor _____ Date _____



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5.(c) Mineral Resources Option (if you wish to do one of the other options bring it to class already completed to show to the counselor):

5 _____
Signature of counselor _____ Date _____

- 1) Define rock. Discuss the three classes of rocks including their origin and characteristics.
- 2) Define mineral. Discuss the origin of minerals and their chemical composition and identification properties, including hardness, specific gravity, color, streak, cleavage, luster, and crystal form.
- 3) Do the following (if you wish to do one of the other options bring it to class already completed to show to the counselor)
 - b. With your counselor's assistance, identify 15 different rocks and minerals. List the name of each specimen, tell whether it is a rock or mineral, and give the name of its class (if it is a rock) or list its identifying physical properties (if it is a mineral).
- 4) List three of the most common road-building materials used in your area. Explain how each material is produced and how each is used in road building.
- 5) Do the following activity (if you wish to do one of the other options bring it to class already completed to show to the counselor):
 - b. With your counselor, choose two examples of rocks and two examples of minerals. Discuss the mining of these materials and describe how each is used by society.