



Geology Merit Badge at Riverbend Park

Welcome to the Geology Merit Badge program at Riverbend Park. The program may be held at either the Riverbend Visitor Center located at 8700 Potomac Hills Street in Great Falls, or the Riverbend Nature Center located at 8814 Jeffery Road. Please review your confirmation email or call the park at 703-759-9018 for location.

Important general Merit Badge information for parents:

Be sure that you are familiar with the requirements for the merit badge your scout has selected. Some badges may take considerable time and planning to complete and may not be appropriate for younger scouts. Blue cards must be signed by your Troop Leader prior to attending the merit badge class. Park staff will not sign off on any blue cards missing this signature.

Most merit badges are not designed to be completed in a single session with an instructor, so it is not always possible to walk away with a completed and signed blue card at the end of a program. Every badge requires some independent work by your scout.

FCPA-Riverbend Park will provide staff, meeting BSA Youth Protection guidelines for male and female scouts, and supervision ratios. Parent/guardian **MUST** sign-in, and sign-out each participant(s) from the class. If you provided your own transportation, you may sign-in and sign-out yourself from the class. There is no fee if adults wish to stay during the class.

Below is the recommended homework to be completed before the program:

Please ask your scout to download the worksheets from meritbadge.org, use them for completing homework, and bring them to class.

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 or an area selected by 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.

4b. Find out about three career opportunities available in geology. Pick one and find out the education, training, and experience required for the profession. Discuss this with your counselor, and explain why this profession might interest you.

5c1. Define rock. Discuss the three classes of rocks including their origins and characteristics.

5c2. Define mineral. Discuss the origin of minerals and their chemical composition and identification properties. (We will go over the details in class.)

5c3b. 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).

5c4. 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.

5c5b. 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.

Also, bring a geology joke to class.

What to bring to the program:

- Bring your completed homework. It is OK if you cannot complete the homework before class. You can bring completed homework in at a later date for sign-off.
- Come prepared to discuss and present your homework. As we move from one topic to the next during class, scouts will be asked to present homework elements completed. It will be more important to prove that you have understood a requirement orally rather than just presenting written information.
- Bring your blue card. (Riverbend does not have blue cards.)
- Bring/wear weather appropriate clothing/outerwear. We will not go outdoors in heavy rain or thunderstorms. Boy Scout uniform not required.
- Bring a pencil and pen.
- We recommend that you download the merit badge worksheets from meritbadge.com and bring these worksheets to class. These worksheets help scouts organize their homework and classwork.
- Bring a snack and drink. Bring more substantial food if your program is longer than four hours.

Work completed after the program:

During the program, the merit badge counselor will do a demonstration or explain the process for completing the final merit badge requirements. Your scout must provide evidence of completion in order to obtain blue card sign-off. Digital photographs of your

scout doing the element and a picture of the completed requirement will be sufficient evidence, unless otherwise stated.

If your scout needs blue card sign-off after the class date, please call 703-759-9018 to arrange a time to meet with a merit badge counselor.

We're looking forward to working with your scout.

Riverbend Park
703-759-9018
8700 Potomac Hills Street
Great Falls, VA 22066

<http://www.fairfaxcounty.gov/parks/riverbend-park/>