



Astronomy Merit Badge at Riverbend Park

Welcome to the Astronomy Merit Badge program at Riverbend Park. The program is held at the Riverbend Visitor Center located at 8700 Potomac Hills Street in Great Falls unless otherwise indicated by park staff.

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.

Please be prepared for the possibility that you may have to stay for the program and not just drop off your scout. We encourage that one or more adults remain. There is no fee for adults and you are sure to learn something. This will allow the instructor to concentrate more fully on the difficult task of imparting all the required information and assisting the boys individually if necessary. Additionally, adults may help keep the atmosphere calm and productive. It is also in keeping with the scouting guidelines for youth protection.

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

There are some useful links at the end of some questions; however, scouts are encouraged to find their own sources (library, internet etc.). Please note that internet links change often and the recommended links may not work.

Merit badge worksheets may be downloaded from meritbadge.org and brought to class. These worksheets help scouts organize their homework and classwork.

1. Do the following:
 - a. Explain to your counselor the most likely hazards you may encounter while participating in astronomy activities, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.
 - b. Explain first aid for injuries or illnesses such as heat and cold reactions, dehydration, bites and stings, and damage to your eyes that could occur during observation.
 - c. Describe the proper clothing and other precautions for safely making observations at night and in cold weather. Then explain how to safely observe the Sun, objects near the Sun, and the Moon.
- 4c. Make two sketches of the Big Dipper. In one sketch, show the Big Dipper's orientation in the early evening sky. In another sketch, show its position

- several hours later. In both sketches, show the North Star and the horizon. Record the date and time each sketch was made.
- 5b. Using the Internet (with your parent's permission) and other resources, find out when each of the five most visible planets that you identified in requirement 5a will be observable in the evening sky during the next 12 months, then compile this information in the form of a chart or table.
 - 6b. Sketch the phase and the daily position of the Moon, at the same hour and place, for four days in a row. Include landmarks on the horizon such as hills, trees, and buildings. Explain the changes you observe.
 9. Find out about three career opportunities in astronomy. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

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 signed off by your Troop Leader. (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.
- Bring a flashlight, if the program is held after dusk.
- Download the merit badge worksheets from meritbadge.com and bring these worksheets to class.
- Bring a snack and drink or money to purchase some at the visitor center. 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/>