

Weather Merit Badge

Please bring to class:

- **Pre-Work – listed in BOLD and red**
- Blue card
- Pen
- Snack/lunch and a drink
- Appropriate clothing to go outside to observe the weather

Important information about how to prepare for a merit badge program at Huntley Meadows Park.

Parents, please review the content of a merit badge prior to registering your scout: some badges may be challenging for younger scouts. Also, the class discussions are more interesting if scouts review *all* the requirements for the badge before the program. The chances of your scout completing all the work for the badge increases dramatically when he is properly motivated and the badge content is age-appropriate.

Merit badges are not designed to be completed in a day and require independent work on the part of the scout outside of the workshop. We call this PREWORK. We suggest this is done prior to the badge program date, but we realize this is not always practical or possible, in these cases we will sign partial cards and accept the assignments after the program.

Merit badge programs can be from 3 to 5 hours long, so be sure to pack a snack and water for your scout and that he is dressed appropriately for being outdoors for some or all of the program.

Though not required, Scout workbooks are very useful and we prefer that scouts use the workbook during the program. Workbooks can be found at:

http://meritbadge.org/wiki/index.php/Merit_Badge_Worksheets .

About blue cards: WE DO NOT HAVE BLUE CARDS. Please bring an *authorized* blue card with you to the program. Your troop scout master should be consulted prior to attending any merit badge program and he or she will sign the front of the card.

1. Define meteorology. Explain what weather is and what climate is. Discuss how the weather affects farmers, sailors, aviators, and the outdoor construction industry. Tell why weather forecasts are important to each of these groups.

2. Name five dangerous weather-related conditions. Give The safety rules for each when outdoors and explain the difference between a severe weather watch and a warning. Discuss the safety rules with your family.

3. Explain the difference between high and low pressure systems in the atmosphere. Tell which is related to good and to poor weather. Draw cross sections of a cold front and a warm front , showing the location and movements of the cold and warm air, the frontal slope, the location and types of clouds associated with each type of front, and the location of precipitation.

4. Tell what causes wind, why it rains, and how lightning and hail are formed.

5. Identify and describe clouds in the low, middle, and upper levels of the atmosphere. Relate these to specific types of weather.

6. Draw a diagram of the water cycle and label its major processes. Explain the water cycle to your counselor.

7. Identify some human activities that can alter the environment, and describe how they affect the climate and people.

8. Describe how the tilt of Earth's axis helps determine the climate of a region near the equator, near the poles, and across the area in between.

9. Do ONE of the following:

- **(a) Make one of the following instruments: wind vane, anemometer, rain gauge, hygrometer. Keep a daily weather log for one week using information from this instrument as well as from other sources such as local radio and television stations, NOAA Weather Radio All Hazards, and Internet sources (with your parent's permission). Record the following information at the same time every day: wind direction and speed, temperature, precipitation, and types of clouds. Be sure to make a note of any morning dew or frost. In the log, also list the weather forecasts from radio or television at the same time each day and show how the weather really turned out.**
- **(b) Visit a National Weather Service office or talk with a local radio or television weathercaster, private meteorologist, local agricultural extension service officer, or university meteorology instructor. Find out what type of weather is most dangerous or damaging to your community. Determine how severe weather and flood warnings reach the homes in your community.**

10. Give a talk of at least five minutes to a group (such as your unit or a Cub Scout pack) explaining the outdoor safety rules in the event of lightning, flash floods, and tornadoes. Before your talk, share your outline with your counselor for approval.

11. Find out about a weather-related career opportunity that interests you. Discuss with and explain to your counselor what training and education are required for such a position, and the responsibilities required of such a position.

Huntley Meadows Park

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