



WEATHER

BYU Merit Badge Pow Wow

Official Merit Badge Worksheet

New 2014 Requirements

Scout's Name: _____ Instructor's Name: _____

Scout's Address: _____ City _____ State _____ Zip: _____

Instructions

1. The Scout is to review the merit badge book before the first week of PowWow.
2. Bring this work sheet, paper, and pencil or pen each week.
3. **Bring a Merit Badge blue card with you on the second week.**

Requirement Instructions*

1. Requirements 2, and 10 should be partially completed as homework between the two sessions of the PowWow and finished in class during the second week session.
2. All other requirements should be completed during the two sessions.

***Due to possible time constraints at the PowWow, certain requirements that were originally planned to be completed in class may need to be completed as homework. Please LISTEN to ALL INSTRUCTIONS in class to be aware of any changes.**

Merit badge worksheets will not be accepted at the Council Office in place of the official Merit Badge Application Card. Those who do not complete all the requirements should take their partially completed merit badge worksheet and their official application card to their local merit badge counselors for completion.

Requirement 1_____

Define meteorology:

Explain what weather is and what climate is:

How does the weather affects farmers? Why are weather forecasts important to farmers?

How does the weather affects sailors? Why are weather forecasts important to sailors?

How does the weather affects aviators? Why are weather forecasts important to aviators?

How does the weather affects the construction industry? Why are weather forecasts important to construction?

Requirement 2_____

Explain the difference between a severe weather watch and a warning:

Name five dangerous weather-related conditions. Give the safety rules for each when outdoors.

1. Condition:

Safety Rules:

2. Condition:

Safety Rules:

3. Condition:

Safety Rules:

4. Condition:

Safety Rules:

5. Condition:

Safety Rules:

Requirement 3: _____

Explain the difference between high- and low- pressure systems in the atmosphere:

Which is related to good weather?

Which is related to poor weather?

Draw a cross section of a **cold** front:

Draw a cross section of a **warm** front:

Requirement 4: _____

What causes wind?

Why does it rain?

What causes lightning?

How does hail form?

Requirement 5: _____

What types of clouds are found in the low levels of the atmosphere? What kind of weather is related to these types of clouds?

What types of clouds are found in the middle levels of the atmosphere? What kind of weather is related to these types of clouds?

What types of clouds are found in the high levels of the atmosphere? What kind of weather is related to these types of clouds?

Requirement 6: _____

Draw a diagram of the water cycle and label its major processes.

Requirement 7: _____

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

Requirement 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.

Requirement 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.

Requirement 10: _____

Do ONE of the following:

- a. 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.
- b. Read several articles about acid rain and give a prepared talk of at least five minutes to a group (such as your unit or a Cub Scout pack) about the articles. Before your talk, share your outline with your counselor for approval.

Requirement 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.