



WEATHER MERIT BADGE WORK SHEET (BYU/UVU PowWow)

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.

Requirement Instructions*

- 1) Requirement 1 will be covered and should be passed off during the two sessions of PowWow.
- 2) Requirement 2 will be covered and should be passed off during the two sessions of PowWow.
- 3) Requirement 3 will be covered and should be passed off during the two sessions of PowWow.
- 4) Requirement 4 will be covered and should be passed off during the two sessions of PowWow.
- 5) Requirement 5 will be covered and should be passed off during the two sessions of PowWow.
- 6) Requirement 6 will be started at the first session of PowWow and should be completed as **homework** between the two sessions of PowWow.
- 7) Requirement 7 will be covered and should be passed off during the two sessions of PowWow.
- 8) Requirement 8 should be completed **either before** PowWow **or as homework** between the two sessions of PowWow.
- 9) Requirement 9 should be completed **either before** PowWow **or as homework** between the two sessions of PowWow.
- 10) Requirement 10 should be completed **either before** PowWow **or as homework** between the two sessions of PowWow.

*All requirements may be subject to change by the merit badge counselor based on time constraints at the PowWow session. Please listen to all instructions given by the instructor to be aware of any changes.

Requirement 1

Initial

Define meteorology.

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

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

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

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

Requirement 2

Initial

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

Condition:

Safety Rules:

Condition:

Safety Rules:

Condition:

Safety Rules:

Condition:

Safety Rules:

Condition:

Safety Rules:

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

Discuss the safety rules with your family and briefly describe what you taught your family.

Requirement 3

Initial

What is the difference between high and low pressure systems in the atmosphere?

Which is related to good weather?

Which is related to poor weather?

Use another piece of paper to draw cross sections of a cold front and a warm front. Show the following on your diagram:

Location of cold and warm air

Movements of the cold and warm air

Frontal Slope

Location of clouds

Type of cloud associated with the front

Location of rain

What is the difference between a cold front and a warm front?

Requirement 4

Initial

What causes wind?

Why does it rain?

How is lightning formed?

How is hail formed?

Requirement 5

Initial

What types of clouds would you find in the low levels of the atmosphere? What kind of weather is related to these types of clouds?

What types of clouds would you find in the middle levels of the atmosphere? What kind of weather is related to these types of clouds?

What types of clouds would you find in the high levels of the atmosphere? What kind of weather is related to these types of clouds?

Requirement 6**Initial**

On another piece of paper draw a diagram of the water cycle. Label all of its major processes. Attach the diagram to this work sheet and show it to your counselor.

Explain the water cycle.

Requirement 7**Initial**

What is acid rain?

Identify some human activities that pollute the atmosphere and the effects the pollution can have on people.

Pollution-causing activity: Effect:

Pollution-causing activity: Effect:

Pollution-causing activity: Effect:

Pollution-causing activity: Effect:

Pollution-causing activity: Effect:

Requirement 8**Initial**

You have been given two options for this requirement. Select and complete ONE of them.

Option 1:

Make one of the following instruments and show it to your counselor.

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 or NOAA Weather Radio. The following information should be recorded 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. Also list the weather forecasts from radio or television at the same time each day and show how the weather really turned out.

Option 2:

Visit a National Weather Service office or talk with a local radio or television weathercaster, private meteorologist, local agricultural extension service office, or university meteorology instructor.

Who/What did you visit?

Give a brief description of your visit.

What type of weather is most dangerous or damaging to your community?

How do severe weather and flood warnings reach the homes in your community?

Requirement 9**Initial**

You have been given two options for this requirement. Select and complete ONE of them.

Option 1:

Speak for five minutes or more to your unit explaining the outdoor safety rules in the event of lightning, flash floods, and tornadoes. Before you speak, show your speech outline to your counselor for approval.

Option 2:

Read several articles about acid rain and give a prepared speech of five minutes or more to your unit. Before you speak, show your speech outline to your counselor for approval.

Requirement 10**Initial**

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.

Merit badge work sheets 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 work sheet and their official application card to their local merit badge counselors for completion.