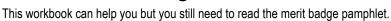


# Weather

# Merit Badge Workbook



The work space provided for each requirement should be used by the Scout to make notes for discussing the item with his counselor, not for providing the full and complete answers. Each Scout must do each requirement.

No one may add or subtract from the official requirements found in **Boy Scout Requirements** (Pub. 33216 – SKU 34765).

	The requirements were last issued or revised in	in 2013 • This workbook was updated in October 2013.
Sco	out's Name:	Unit:
	unselor's Name:	
	Please submit errors, omissions, comments or sug	ggestions about this workbook to: Workbooks@USScouts.Org nts for the merit badge should be sent to: Merit.Badge@Scouting.Org
1.	Define meteorology.	
	Explain what weather is and what climate is.	
	Weather:	
	Climate:	

Discuss how the weather affects farmers, sailors, aviators, and the outdoor construction industry. Farmers: Sailors: Aviators: Outdoor construction: Tell why weather forecasts are important to each of these groups. **Farmers** Sailors: **Aviators** Outdoor construction

Scout's Name: \_\_\_\_\_

Weather

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

	Condition	Safety Rules
1.		
2.		
3.		
4.		
5.		
Ехр	lain the difference betw	ween a severe weather watch and a warning.
se	vere weather watch	
se	vere weather warning	

Discuss the safety rules with your family.

Weather	Scout's Name:		
Explain the difference between high and low pressure systems	s 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 t frontal slope, the location and types of clouds associated with	he location and movements of the cold and warm air, the		
Cold Front	Warm Font		
	Trainin Silk		

4. Tell what causes wind, why it rains, and how lightning and hail are formed. What causes wind: Why does it rain: How is lightning formed: How is hail formed: 5. Identify and describe clouds in the low, middle, and upper levels of the atmosphere. Low: Middle: High:

Scout's Name: \_\_\_\_\_

Weather

Relate these to s	pecific types of wea	ather.			
raw a diagram	of the water cycle a	ınd label its majo	or processes.		
xplain the wate	r cycle to your coun	iselor.			

Weather

Scout's Name: \_\_\_\_\_

eather	Scout's Name:
Identify some huma	an activities that can alter the environment, and describe how they affect the climate and people.
area in between. Near the equator	
Near the poles	
Across the area	
in between	

9.	Do ON	E of the following:							
	a. Make one of the following instruments: ☐ wind vane, ☐ anemometer, ☐ rain gauge, ☐ or hygrometer.						er.		
	_	Keep a daily we local radio and t permission). Reprecipitation, an weather forecas	ather log for 1 elevision static ecord the follow d types of clou	week using in ons, NOAA We ving information	formation from eather Radio A on at the same o make a note	this instrumen Il Hazards, and time every day of any morning	t as well as from the source of the state of	om other source ces (with your per and speed, to In the log, also	es such as parent's emperature, polist the
			Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
		Time							
		Wind Speed							
		Direction							
		Temperature							
		Precipitation							
		Cloud Types							
		Dew or Frost							
		Forecasted							
		Actual							
	b.	Visit a National local agricultura  Date:	l extension ser	vice officer, or	university met	eorology instru	ıctor.	•	teorologist,
		Find out what ty	pe of weather	is most dange	rous or damag	ing to your con	nmunity.		
		Determine how	severe weathe	r and flood wa	arnings reach t	ne homes in yo	our community.	•	

Weather

Scout's Name:

We	ather		Scout's Name:					
10.	טס נ	DNE of the following:						
			Give a talk of at least 5 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.					
			Read several articles about acid rain and give a prepared talk of more than 5 minutes about the articles to your unit. Before your talk, show your outline to your counselor for approval.					
11.	Find	out	about a weather-related career opportunity that interests you					
			with and explain to your counselor what training and education are required for such a position, and the bilities required of such a position.					
	Trai	ining						
	Edu	ıcatio	on:					
	Res	spons	sibilities:					
			Requirement resources can be found here:					

http://www.meritbadge.org/wiki/index.php/Weather#Requirement resources

Weather - Merit Badge Workbook

## Important excerpts from the Guide To Advancement - 2013, No. 33088 (SKU-618673)

#### [1.0.0.0] — Introduction

The current edition of the *Guide to Advancement* is the official source for administering advancement in all Boy Scouts of America programs: Cub Scouting, Boy Scouting, Varsity Scouting, Venturing, and Sea Scouts. It replaces any previous BSA advancement manuals, including *Advancement Committee Policies and Procedures*, *Advancement and Recognition Policies and Procedures*, and previous editions of the *Guide to Advancement*.

#### [Page 2, and 5.0.1.4] — Policy on Unauthorized Changes to Advancement Program

No council, committee, district, unit, or individual has the authority to add to, or subtract from, advancement requirements. There are limited exceptions relating only to youth members with special needs. For details see section 10, "Advancement for Members With Special Needs".

#### [Page 2] — The "Guide to Safe Scouting" Applies

Policies and procedures outlined in the *Guide to Safe Scouting*, No. 34416, apply to all BSA activities, including those related to advancement and Eagle Scout service projects.

#### [7.0.3.1] — The Buddy System and Certifying Completion

A youth member must not meet one-on-one with an adult. Sessions with counselors must take place where others can view the interaction, or the Scout must have a buddy: a friend, parent, guardian, brother, sister, or other relative—or better yet, another Scout working on the same badge—along with him attending the session.

When the Scout meets with the counselor, he should bring any required projects. If these cannot be transported, he should present evidence, such as photographs or adult verification. His unit leader, for example, might state that a satisfactory bridge or tower has been built for the Pioneering merit badge, or that meals were prepared for Cooking. If there are questions that requirements were met, a counselor may confirm with adults involved. Once satisfied, the counselor signs the blue card using the date upon which the Scout completed the requirements, or in the case of partials, initials the individual requirements passed.

Note that from time to time, it may be appropriate for a requirement that has been met for one badge to also count for another. See "Fulfilling More Than One Requirement With a Single Activity," 4.2.3.6.

#### [7.0.3.2] — Group Instruction

It is acceptable—and sometimes desirable—for merit badges to be taught in group settings. This often occurs at camp and merit badge midways or similar events. Interactive group discussions can support learning. The method can also be attractive to "guest experts" assisting registered and approved counselors. Slide shows, skits, demonstrations, panels, and various other techniques can also be employed, but as any teacher can attest, not everyone will learn all the material.

There must be attention to each individual's projects and his fulfillment of *all* requirements. We must know that every Scout —actually and *personally*— completed them. If, for example, a requirement uses words like "show," "demonstrate," or "discuss," then every Scout must do that. It is unacceptable to award badges on the basis of sitting in classrooms *watching* demonstrations, or remaining silent during discussions. It is sometimes reported that Scouts who have received merit badges through group instructional settings have not fulfilled all the requirements. To offer a quality merit badge program, council and district advancement committees should ensure the following are in place for all group instructional events.

- Merit badge counselors are known to be registered and approved.
- Any guest experts or guest speakers, or others assisting who are not registered and approved as merit badge counselors, do not accept the
  responsibilities of, or behave as, merit badge counselors, either at a group instructional event or at any other time. Their service is temporary, not
  ongoing.
- Counselors agree not to assume prerequisites have been completed without some level of evidence that the work has been done. Pictures and
  letters from other merit badge counselors or unit leaders are the best form of prerequisite documentation when the actual work done cannot be
  brought to the camp or site of the merit badge event.
- There is a mechanism for unit leaders or others to report concerns to a council advancement committee on summer camp merit badge programs, group instructional events, and any other merit badge counseling issues—especially in instances where it is believed BSA procedures are not followed. See "Reporting Merit Badge Counseling Concerns," 11.1.0.0.
- There must be attention to each individual's projects and his fulfillment of all requirements. We must know that every Scout—actually and personally—completed them.

### [7.0.3.3] — Partial Completions

A Scout need not pass all the requirements of one merit badge with the same counselor. It may be that due to timing or location issues, etc., he must meet with a different counselor to finish the badge. The Application for Merit Badge has a place to record what has been finished—a "partial." In the center section on the reverse of the blue card, the counselor initials for each requirement passed. In the case of a partial completion, the counselor does not retain his or her portion of the card. A subsequent counselor may choose not to accept partial work, but this should be rare. A Scout, if he believes he is being treated unfairly, may work with his unit leader to find another counselor. An example for the use of a signed partial would be to take it to camp as proof of prerequisites. Partials have no expiration except the Scout's 18th birthday. Units, districts, or councils shall not establish other expiration dates for partial merit badges.

#### [7.0.4.8] — Unofficial Worksheets and Learning Aids

Worksheets and other materials that may be of assistance in earning merit badges are available from a variety of places including unofficial sources on the Internet and even troop libraries. Use of these aids is permissible as long as the materials can be correlated with the current requirements that Scouts must fulfill. Completing "worksheets" may suffice where a requirement calls for something in writing, but this would not work for a requirement where the Scout must discuss, tell, show, or demonstrate, etc. Note that Scouts shall not be required to use these learning aids in order to complete a merit badge.