

MERIT BADGE APPLICATION INSTRUCTIONS TO SCOUT:

Press F1 for help for any blank.

- Print your name, address, city, unit type & number, District, Council & Merit Badge legibly.

- for this merit badge on District's list.
- Your unit leader signs & dates.
- Read the merit badge pamphlet.

- Always meet with your counselor along with a buddy (a Scout, friend, or parent).

Counselor's Section

Applicant's Section

Council Section

Information for Applicant

- A merit badge application can be approved only by a registered merit badge counselor.
- You must have a buddy with you (Scout buddy system) at each meeting with the merit badge counselor.
- Turn in your approved application to your unit leader. You will be awarded the merit badge and certificate at a suitable occasion.

Information for Counselor

- Merit badge applications must be signed in advance by the applicant's unit leader.
- The Scout must have his buddy (Scout buddy system) in attendance at all instructional sessions.
- You may not change any requirement, but you may share your knowledge or experience that will make the counseling more interesting and valuable.

#34124A

No. and letter Requirement Approval Date of Initial Counselor									

APPLICATION FOR MERIT BADGE

Name

Address

City

is a registered
 Boy Scout Varsity Scout Venturer

of **Troop** No.

Troop, team, crew, ship

District

Council

and is qualified to begin working for this merit badge

X

Date Signature of unit leader

34124A **BOY SCOUTS OF AMERICA**

2001 Boy Scouts of America

COUNSELOR'S RECORD

Applicant

Troop Unit number

Troop, team, crew, ship

Merit Badge

Date completed

Remarks:

It is suggested that the counselor keep this record for at least 1 year in case any question is raised later in regard to this award.

APPLICANT'S RECORD

Name CAMERON HANSON

Has given me his completed application for the

Merit Badge

Completed on by

Date

[Signature]

Signature of Counselor

Signature of Unit Leader

Note to Scout: Retain this copy for your permanent records.

The applicant has personally appeared before me and demonstrated to my satisfaction that he has met all requirements for the (please print)

Merit badge

Name of counselor

Address of counselor

City Zip code

Telephone number of counselor

X *[Signature]*

Signature of counselor Date Completed

Checked and recorded:

Date Initials

Certificate and badge presented

Date

Applicant will turn in this portion to his unit leader for record posting.

INSTRUCTIONS TO COUNSELOR:

- Your Leader must verify that the counselor is registered & approved
- Never meet alone with a Scout.
- Verify all info & merit badge name.

- Call counselor for appointment.
- Print your name, address, & ph. #
- Date/initial requirements as done.

INSTRUCTIONS TO UNIT:

- A 2nd counselor can finish card.
- Note each name, address & phone.



Environmental Science

Merit Badge Workbook

This workbook can help you but you still need to read the merit badge pamphlet (book). No one can add or subtract from the Boy Scout Requirements #33215. Merit Badge Workbooks and much more are below: [Online Resources](#).

Worksheet developer: craig@craiglincoln.com. Requirements revised: 2006, Workbook updated: April 2008.

Scout's Name: _____ Unit: _____

Counselor's Name: _____ Counselor's Ph #: _____

1. Make a timeline of the history of environmental science in America.

1500	1600	1700	1800	1900	2000
Indians Forests Colonists over use forests	Colonists maintaining forests		Authors write about Americans groups formed to protect environment Yellowstone	multiple use act	EPA established set up

Identify the contribution made by the Boy Scouts of America to environmental science. Include dates, names of people or organizations, and important events.

~~1900~~ Set up woodcraft Indians
1907

2. Define the following terms:

population, the number that belonging to a species

community, group of animals interacting

ecosystem, all resources and species that have a relationship

biosphere, sphere around the earth that supports life

symbiosis, species that live together but don't feed each other

niche, the role of a species in a community

habitat, area where animals live

conservation, keeping animals and/or natural resources intact

threatened species, a species that will become endangered if more is done

endangered species, so few they will become extinct if more is done

extinction none of the species is left

pollution prevention, preventing an area from pollution

brownfield, industrial field with toxic elements

ozone, area that protects from UV

watershed, area draining into body of water

airshed, areas that share air

nonpoint source, sources of pollution

hybrid vehicle, a vehicle that has two sources of power

fuel cell. converts gas to electricity and water

3. Do ONE activity in EACH of the following categories (using the activities in this pamphlet as the bases for planning and carrying out your projects):

A. Ecology

1. Conduct an experiment to find out how living things respond to changes in their environments. Discuss your observations with your counselor. **-OR-**
2. Conduct an experiment illustrating the greenhouse effect. Keep a journal of your data and observations. Discuss your conclusions with your counselor. **-OR-**

3. Discuss what is an ecosystem. Tell how it is maintained in nature and how it survives.

An ecosystem is all the relations in nature. It is maintained by.

B. Air Pollution

1. Perform an experiment to test for particulates that contribute to air pollution. Discuss your findings with your counselor. -OR-
2. Record the trips taken, mileage, and fuel consumption of a family car for seven days, and calculate how many miles per gallon the car gets. Determine whether any trips could have been combined ("chained") rather than taken out and back. Using the idea of trip chaining, determine how many miles and gallons of gas could have been saved in those seven days. -OR-
3. Explain what is acid rain. In your explanation, tell how it affects plants and the environment and the steps society can take to help reduce its effects.

Acid Rain is when nitric acid and sulfuric acid go through the water cycle to end up falling from rain clouds. It burns through living things and poisons water. Society has passed a regulation so that coal burning power plants the biggest source of Acid rain to have an exhaust scrubber. It runs through a water bath and the result is fairly clean. Waste from that creates fertilizer

C. Water Pollution

1. Conduct an experiment to show how living things react to thermal pollution. Discuss your observations with your counselor. -OR-
2. Conduct an experiment to identify the methods that could be used to mediate (reduce) the effects of an oil spill on waterfowl. Discuss your results with your counselor. -OR-

3. Describe the impact of a waterborne pollutant on an aquatic community. Write a 100-word report on how that pollutant affected aquatic life, what the effect was, and whether the effect is linked to biomagnification.

D. Land Pollution

- 1. Conduct an experiment to illustrate soil erosion by water. Take photographs or make a drawing of the soil before and after your experiment, and make a poster showing your results. Present your poster to your patrol or troop. (*Per National, "troop" means "unit".*) -OR-
- 2. Perform an experiment to determine the effect of an oil spill on land. Discuss your conclusions with your counselor. -OR-
- 3. Photograph an area affected by erosion. Share your photographs with your counselor and discuss why the area has eroded and what might be done to help alleviate the erosion.

E. Endangered Species

- 1. Do research on one endangered species found in your state. Find out what its natural habitat is, why it is endangered, what is being done to preserve it, and how many individual organisms are left in the wild. Prepare a 100-word report about the organism, including a drawing. Present your report to your patrol or troop. -OR-
- 2. Do research on one species that was endangered or threatened but which has now recovered. Find out how the organism recovered, and what its new status is. Write a 100-word report on the species and discuss it with your counselor. -OR-
- 3. With your parent's and counselor's approval, work with a natural resource professional to identify two projects that have been approved to improve the habitat for a threatened or endangered species in your area. Visit the site of one of these projects and report on what you saw.

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Non-plant species type Number

Non-plant species type Number

-OR- b. Make at least three visits to each of the two study areas (for a total of six visits), staying for at least 20 minutes each time, to observe the living and nonliving parts of the ecosystem. Space each visit far enough apart that there are readily apparent differences in the observations. Keep a journal that includes the differences you observe. Then, write a short report that adequately addresses your observations, including how the differences of the study areas might relate to the differences noted, and discuss this with your counselor.

Visit 1 Date: _____ **Time Started:** _____ **Time Ended:** _____

Observations of living parts: _____

Observations of nonliving parts: _____

Differences noted: _____

Visit 2 Date: _____ **Time Started:** _____ **Time Ended:** _____

Observations of living parts: _____

Observations of nonliving parts: _____

Differences noted: _____

Visit 3 Date: _____ **Time Started:** _____ **Time Ended:** _____

Observations of living parts: _____

Observations of nonliving parts: _____

Differences noted: _____

Then, write a short report that adequately addresses your observations, including how the differences of the study areas might relate to the differences noted, and discuss this with your counselor. _____

5. Using the construction project provided or a plan you create on your own, identify the items that would need to be included in an environmental impact statement for the project planned. _____

6. Find out about three career opportunities in environmental science.

Water pollution guy, EPA worker, farmer, forest service

Pick one and find out the education, training, and experience required for this profession. bachlor or masters degree

Discuss this with your counselor, and explain why this profession might interest you. _____

Online Resources (Use any Internet resource with caution and only with your parent's or guardian's permission.)

- Boy Scouts of America:** ▶ scouting.org ▶ [Guide to Safe Scouting](#) ▶ [Age-Appropriate Guidelines](#) ▶ [Safe Swim Defense](#)
- ▶ [Scout](#) ▶ [Tenderfoot](#) ▶ [Second Class](#) ▶ [First Class](#) ▶ [Rank Videos](#) ▶ [Safety Afloat](#)

Boy Scout Merit Badge Workbooks: usscouts.org -or- meritbadge.org **Merit Badge Books:** www.scoutstuff.org

- Advocacy Organizations: <http://www.saveoureenvironment.org> Earth 911: <http://www.earth911.org>
- Endangered Species: <http://endangered.fws.gov> Environmental Protection Agency: <http://www.epa.gov>
- Keep America Beautiful: <http://www.kab.org> Leave No Trace Center: <http://www.LNT.org>
- Nat. Climatic Data Center: <http://wf.ncdc.noaa.gov/oa/ncdc.html>
- Nat. Fish and Wildlife Foundation: <http://www.nfwf.org> Nat. Park Service: <http://www.nps.gov>
- Natural Resources Cons. Service: <http://www.nrcs.usda.gov> Sierra Club: <http://www.sierraclub.org>
- Society of American Foresters: <http://www.safnet.org> U.S. Fish and Wildlife Service: <http://www.fws.gov>
- USDA Forest Service: <http://www.fs.fed.us> Wildlife Conservation Society: <http://wcs.org>
- World Wildlife Fund: <http://www.worldwildlife.org>





Camping

Merit Badge Workbook

This workbook can help you but you still need to read the merit badge pamphlet (book). No one can add or subtract from the Boy Scout Requirements #33216. Merit Badge Workbooks and much more are below: [Online Resources](#).

Workbook developer: craig@craiglincoln.com. Requirements revised: 2007, Workbook updated: February 2009.

Scout's Name: Cameron W. Mason / Unit: _____

Counselor's Name: Bro. Little Counselor's Ph #: _____

1. **Show** that you know first aid for and how to prevent injuries or illnesses that could occur while camping, including hypothermia, get them out of cold, Huggz

frostbite, warm inflicted area

heat reactions, take excess clothing get to shade, A/C, cool skin

dehydration, drink in small amounts

altitude sickness, adapt to altitude go down

insect stings, scrape off gently, don't squish

tick bites, use tweezers if a rash occurs see doctor

snakebite, avoid snakes if you can; snake fangs - puncture - remove venom by elevate than knee level

blisters, walk in fitting shoes don't pop mole skin

and hyperventilation. _____

2. Learn the Leave No Trace principles _____

_____ and the Outdoor Code and explain what they mean. _____

Write a personal plan for implementing these principles on your next outing. _____

3. Make a written plan for an overnight trek _____

and **show** how to get to your camping spot using a topographical map and compass OR a topographical map and a GPS receiver.

4. Do the following:
(a) Make a duty roster showing how your patrol is organized for an actual overnight campout. List assignments for each member.

(b) Help a Scout patrol or a Webelos Scout unit in your area prepare for an actual campout, including creating the
duty roster, _____
menu planning, _____
equipment needs, _____
general planning, _____

and setting up camp. _____

5. Do the following:

(a) Prepare a list of clothing you would need for an overnight campout in both warm weather and cold weather.

Warm Weather

<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

Cold Weather

<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

Explain the term layering _____

(b) Discuss footwear for different kinds of weather _____

and how the right footwear is important for protecting your feet. _____

(c) Explain the proper care and storage of camping equipment (clothing, footwear, bedding). _____

(d) List the outdoor essentials necessary for any campout, and explain why each item is needed.

Item	Why is it needed
_____	_____
_____	_____
_____	_____
_____	_____

(e) Present yourself to your Scoutmaster with your pack for inspection. _____
 Be correctly clothed and equipped for an overnight campout. _____

6. Do the following:

(a) Describe the features of four types of tents, when and where they could be used,

Type A-frame

Features triangular, small

When to use _____

Where to use _____

Type Tarp

Features _____

When to use _____

Where to use _____

Type Dome

Features _____

When to use _____

Where to use _____

Type Hybrid

Features _____

When to use _____

Where to use _____

and how to care for tents. _____

Working with another Scout, pitch a tent. _____

(b) Discuss the importance of camp sanitation avoid sickness, disease, looks good and keeps animals away, hot soap, water, hot water, cold water

and tell why water treatment is essential. _____

Then **demonstrate** two ways to treat water.

(c) Describe the factors to be considered in deciding where to pitch your tent. _____

(d) Tell the difference between internal- _____

and external-frame packs. _____

Discuss the advantages and disadvantages of each.

Internal Frame Pack

External Frame Pack

Advantages

Disadvantages

Advantages

Disadvantages

Advantages	Disadvantages	Advantages	Disadvantages

(e) Discuss the types of sleeping bags and what kind would be suitable for different conditions.

Type of Sleeping Bag	For what conditions is this sleeping bag appropriate?
wool	warm climate
synthetic waterproof	everything else
down	cold climate

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Explain the proper care of your sleeping bag Keep it dry

and how to keep it dry. _____

Make a comfortable ground bed. _____

7. Prepare for an overnight campout with your patrol by doing the following:

(a) Make a checklist of personal and patrol gear that will be needed.

Person Gear Checklist

<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

Patrol Gear Checklist

<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

(b) Pack your own gear and your share of the patrol gear and food for proper carrying. **Show** that your pack is right for quickly getting what is needed first, and that it has been assembled properly for comfort, weight, balance, size and neatness. _____

8. Do the following:

(a) Explain the safety procedures for:

(1) Using a propane or butane / propane stove _____

(2) Using a liquid fuel stove _____

(3) Proper storage of extra fuel _____

(b) Discuss the advantages and disadvantages of different types of lightweight cooking stoves.

Type

Advantages

Disadvantages

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

(c) Prepare a camp menu. Explain how the menu would differ from a menu for a backpacking or float trip. _____

Give recipes and make a food list for your patrol. Plan two breakfasts, three lunches, and two suppers.

Breakfast 1: Food List: _____

Breakfast 2: Food List: _____

<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

Recipes _____

Recipes _____

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Lunch 1 Food List:

Lunch 2 Food List:

Lunch 3 Food List:

<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

Recipes _____

Recipes _____

Recipes _____

_____	_____	_____
_____	_____	_____
_____	_____	_____

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Supper 1: Food List:

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

Supper 2: Food List:

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

Recipes _____

Recipes _____

Discuss how to protect your food against bad weather, animals, and contamination. _____

(d) Cook at least one breakfast, one lunch, and one dinner for your patrol from the meals you have planned for requirement 8c. At least one of those meals must be a trail meal requiring the use of a lightweight stove. _____

9. Show experience in camping by doing the following:

(a) Camp a total of at least 20 days and 20 nights. Sleep each night under the sky or in a tent you have pitched. The 20 days and 20 nights must be at a designated Scouting activity or event. You may use a week of long-term camp toward this requirement. If the camp provides a tent that has already been pitched, you need not pitch your own tent.

(b) On any of these camping experiences, you must do TWO of the following, only with proper preparation and qualified supervision:

1. Hike up a mountain, gaining at least 1,000 vertical feet. _____
2. Backpack, snowshoe, or cross-country ski for at least four miles. _____
3. Take a bike trip of at least 15 miles or at least four hours. _____
4. Plan and carry out a float trip of at least four hours. _____
5. Plan and carry out an overnight snow camping experience. _____
6. Rappel down a rappel route of 30 feet or more. _____

(c) Perform a conservation project approved by the landowner or land managing agency.

10. Discuss how the things you did to earn this badge have taught you personal health and safety, _____

survival, _____

public health, _____

conservation, _____

and good citizenship. _____

In your discussion, tell how Scout spirit and the Scout Oath and Law apply to camping and outdoor ethics. _____

Online Resources (Use any Internet resource with caution and only with your parent's or guardian's permission.)

Boy Scouts of America: ► scouting.org ► [Guide to Safe Scouting](#) ► [Age-Appropriate Guidelines](#) ► [Safe Swim Defense](#)
 ► [Scout](#) ► [Tenderfoot](#) ► [Second Class](#) ► [First Class](#) ► [Rank Videos](#) ► [Safety Afloat](#)

Merit Badge Books: www.scoutstuff.org **Please don't post workbooks on your site. Please instead post links to these:**
 MeritBadge.org: <http://meritbadge.org/wiki/index.php/MBW> -or- usscouts.org: <http://www.usscouts.org/mb/worksheets/list.asp>

Requirement Resources

These resources and much more are at: <http://meritbadge.org/wiki/index.php/Camping>

1: First Aid: See http://meritbadge.org/wiki/index.php/First_Aid for these links and more:

[First Aid Videos: Basics - Basics2 Wilderness First Aid CPR Basics Venomous Snake Bite First Aid Kits](#)

[Other First Aid Links: Mayo Clinic First Aid Guide Class 1 Exam Class 3 Warning Signs of Cancer - Heart Disease](#)

2-7: Camping Basics: See <http://meritbadge.org/wiki/index.php/Camping> for these links and more:

[Camping Videos: Packing Layering Wet Weather Campsite Sleeping Bags Pads Tents Water Purification Leave No Trace](#)

[Other Camping links: Camping Checklists Leave No Trace Outdoor Code Cooking USScouts: Camping Camps Database Types of Tents - Water Treatment - Campsite Selection - Sleeping Bag Types - Sleeping Bag Selection - More Checklists](#)

2: Leave No Trace and Outdoor Codes are attached

3: Map & Compass: See <http://meritbadge.org/wiki/index.php/Orienteering> for these links and more:

Free Topographical Maps: <http://store.usgs.gov/>

Topozone.com: <http://www.topozone.com/> (free 8.5x11.)

Satellite, Street & Terrain: <http://maps.google.com/>

5d. Camping Essentials: http://meritbadge.org/wiki/index.php/Essentials_for_the_Outdoors

6a. Types of Tents: http://en.wikipedia.org/wiki/Tent#Current_tent_styles

6b. Water Treatment Basics: <http://www.rei.com/expertadvice/articles/water+treatment+backcountry.html>

6c. How to Choose the Right Campsite: <http://www.rei.com/expertadvice/articles/campsite+selection.html>

6d. Internal Frame vs External Frame: <http://www2.qsu.edu/~wwwrec/touch/camping/ext-vs-int.html>

6e. Types of Sleeping Bags: http://en.wikipedia.org/wiki/Sleeping_bag#Design_types

[How to Choose a Sleeping Bag: http://www.rei.com/expertadvice/articles/sleeping+bag.html](http://www.rei.com/expertadvice/articles/sleeping+bag.html)

8. Cooking: See <http://meritbadge.org/wiki/index.php/Cooking> for these links and more:

Outdoor Cooking Lesson Videos: [Food Selection](#) - [Food Quality](#) - [Stoves](#) - [Utensils](#) - [Water Purification](#) - [Leave No Trace](#)

Outdoor cooking links: [Scoutstuff.org](#) - [Scoutorama](#) - [USScouts.Org](#) - [MacScouter](#) - [RecipeSource.com](#) -

[CampRecipes.com](#) - [Scouter.net](#) - [Foil-Cooking](#) - [Cub Scout Cookbook](#) - [NetWoods.com](#) - [Scout Camp Cooking](#) - [The Trailside Cookbook](#) - [Buckskinner Cookbook](#) - [Ol' Buffalo Outdoor Cooking Page](#)

Dutch Oven Cooking: [USScouts.Org](#) - [MacScouter](#) - [dutchovencookware.com](#)

Other cooking links: [Cooking Merit badge](#) - [Leave No Trace](#) - [Stove Safety](#)

9a. Hiking: See <http://meritbadge.org/wiki/index.php/Hiking> for these links and more:

[Hiking Videos: Planning](#) - [Footwear](#) - [Blisters](#) - [Gear](#) - [Cold Weather](#) - [Warm Weather](#) - [Layering](#)

9b. Backpacking: See <http://meritbadge.org/wiki/index.php/Backpacking> for these links and more:

[Backpacking Videos: Gear](#) - [Internal vs. External Frame](#) - [Clothing](#) - [Socks](#) - [Food](#) - [Hydration](#)

General Resources

[Knot Videos](#) ► [Basics](#) ► [Basics2](#) ► [Animated Knots](#)

[USScouts.org:](#) ► [Orienteering](#) ► [Camps Database](#) ► [Cooking](#) ► [Camping](#) ► [More](#)

U.S. Bureau of Land Management: <http://www.blm.gov>

Sea Base: <http://www.bsaseabase.org>

MERIT BADGE APPLICATION INSTRUCTIONS TO SCOUT:

Press F1 for help for any blank.

- Print your name, address, city, unit type & number, District, Council & Merit Badge legibly.

- for this merit badge on District's list.
- Your unit leader signs & dates.
- Read the merit badge pamphlet.

- Always meet with your counselor along with a buddy (a Scout, friend, or parent).

Counselor's Section

Applicant's Section

Council Section

Information for Applicant

- A merit badge application can be approved only by a registered merit badge counselor.
- You must have a buddy with you (Scout buddy system) at each meeting with the merit badge counselor.
- Turn in your approved application to your unit leader. You will be awarded the merit badge and certificate at a suitable occasion.

Information for Counselor

- Merit badge applications must be signed in advance by the applicant's unit leader.
- The Scout must have his buddy (Scout buddy system) in attendance at all instructional sessions.
- You may not change any requirement, but you may share your knowledge or experience that will make the counseling more interesting and valuable.

#34124A

No. and letter	Requirement	Approval	Date of	Initial	Counselor
1					
2					
3					
4					
5					
6					
7					

APPLICATION FOR MERIT BADGE

Name

Address

City

is a registered

- Boy Scout
- Varsity Scout
- Venturer

of Troop No.

Troop, team, crew, ship

District

Council

and is qualified to begin working for this merit badge

Date Signature of unit leader
 34124A **BOY SCOUTS OF AMERICA**
 2001 Boy Scouts of America

COUNSELOR'S RECORD

Applicant

Troop Unit number
 Troop, team, crew, ship

Merit Badge

Date completed _____
 Remarks:

It is suggested that the counselor keep this record for at least 1 year in case any question is raised later in regard to this award.

APPLICANT'S RECORD

Name

Has given me his completed application for the

Merit Badge

Completed on _____ by _____
 Date

 Signature of Counselor

 Signature of Unit Leader

Note to Scout: Retain this copy for your permanent records.

The applicant has personally appeared before me and demonstrated to my satisfaction that he has met all requirements for the (please print)

 Merit badge

 Name of counselor

 Address of counselor

 City Zip code

 Telephone number of counselor

Signature of counselor Date Completed

Checked and recorded: _____
 Date Initials

Certificate and badge presented _____
 Date

Applicant will turn in this portion to his unit leader for record posting.

INSTRUCTIONS TO COUNSELOR:

- Your Leader must verify that the counselor is registered & approved
- Never meet alone with a Scout.
- Verify all info & merit badge name.

- Call counselor for appointment.
- Print your name, address, & ph. #
- Date/initial requirements as done.

INSTRUCTIONS TO UNIT:

- A 2nd counselor can finish card.
- Note each name, address & phone.





Fishing

Merit Badge Workbook

This workbook can help you but you still need to read the merit badge pamphlet (book). No one can add or subtract from the Boy Scout Requirements #33216. Each Scout must do each requirement. Merit Badge Workbooks and more: [Online Resources](#). Send comments to the workbook developer: craig@craiglincoln.com. Requirements revised: 2010, Workbook updated: 8/10.

Scout's Name: _____ Unit: _____

Counselor's Name: _____ Counselor's Ph #: _____

1. Do the following:

- a. Discuss the prevention of and treatment for the following health concerns that could occur while fly-fishing, including cuts, scratches, Clean them bandage, apply pressure with clean cloth if it should be stopped bleeding, & pressure to air helps it heal
- puncture wounds, most puncture wound risk exposure to tetanus, same as scratches and cuts. Keep changing bandage and watch for infection see doctor
- insect bites, protect your body. Use something with Hydrocortisone
- hypothermia, loss of body heat, slurred speech, shivering uncontro
- dehydration, less than 2L water, dark yellow urine. Drink not Rely. Avoid heat find shade, rest more
- heat exhaustion, walk, no, nausea, crampy skin, lie down elevate feet, 2 quarts water to one quart of water
- heatstroke, you're sweating, getting so hot. Seek medical attention. Go
- and sunburn. Keep right clothing on, Sunscreen. Above water, Aftersun

b. Explain how to remove a hook that has lodged in your arm. Insert if it's shallow cut the line pull back through with more line push it through cut off barb and pull out

c. Name and explain five safety practices you should always follow while fly-fishing. trip itinerary have a plan that someone know where you are going wading - stalk slow and come full solidly plant foot in front of another boating - be worried about weather check weather have something keep tight vs know how canoe travel always stoppped don't have extra paddle and flashlight watercraft - always have flotation device

2. Discuss the differences between two types of fishing outfits. Type 1: baít casting
Type 2: fly fishing Differences: head and reel (and bar) on water

Point out and identify the parts of several types of rods and reels. Explain how and when each would be used. Review with your counselor how to care for this equipment.

Example of a Spinning Rod & Reel



Example of a Salt Water Trolling Rod & Reel



How used: used drag to neutralize winded fish lowering spin 6 to 8 ft
 When used: light casting spin and trolling open ocean trolling for fish
 Care: take care when handling keep clean by wiping salt with stick water guide

Example of an Ice Fishing Rod & Reel



Example of a Fly Fishing Rod & Reel



How used: stack line then work 1-3 meters from to or foot from boat
 When used: when leader goes trash up 1/2 of line to just past 10-2 whip out
 Care: _____ fly fishing angling freshwater salt

3. Demonstrate the proper use of two different types of fishing equipment. _____

4. Demonstrate how to tie the following knots: clinch, palomar, turle, blood loop (barrel knot), and double surgeon's loop. Explain how and when each knot is used.

clinch, _____

palomar, _____

turle, _____

blood loop (barrel knot), _____

and double surgeon's loop. _____

5. Name and Identify five Artificial Lures and explain how to fish with them. (Here are some examples)



Spinner



Spoons



jigs



plastic worm



frog

and five Natural Baits and explain how to fish with them:

leeches

only use black or gray

frogs

hook through nose and fish by shore

minnows

hook through the lips under side lip

crickets

hook them while they are roasting

worms

red worms, garden worms, nightcrawler, pump with air and hook in head

Explain why bait fish are not to be released. they damage the ecosystem

6. Do the following:

Explain the importance of practicing Leave No Trace techniques. Discuss the positive effects of Leave No Trace on fishing resources. it keeps fishing areas without debris. We are trying to protect the fish

b. Discuss the meaning and importance of catch and release. Catch and release is when you fish for fun and try to not harm and release a fish with barbless hooks

Describe how to properly release a fish safely to the water. use barbless hooks. remove the hook with pliers. If you make the fish out wet your hands

7. Obtain and review a copy of the regulations affecting game fishing where you live. Explain why they were adopted and what you accomplish by following them. You don't need a licence when you are 14 or younger or blind.

We have these laws to protect the fish

8. Explain what good outdoor sportsmanlike behavior is and how it relates to anglers. Clean in our outdoor moments
Careful around fire we are considerate about others and the environment and cover
vector minding

Tell how the Outdoor Code of the Boy Scouts of America relates to a fishing enthusiast, including the aspects of
 littering, Cleaning up after ourselves

trespassing, is prohibited

courteous behavior, give others space, keep the environment the same

and obeying fishing regulations. if you are under 14 or blind you don't need a license
Don't fish with live bait if prohibited

9. Catch at least one fish. If regulations and health concerns permit, clean and cook a fish you have caught. Otherwise, acquire a fish and cook it. _____

Online Resources: (Use any Internet resource with caution and only with your parent's or guardian's permission.)

Boy Scouts of America: ► scouting.org ► [Guide to Safe Scouting](#) ► [Age-Appropriate Guidelines](#) ► [Safe Swim Defense](#)
 ► [Scout](#) ► [Tenderfoot](#) ► [Second Class](#) ► [First Class](#) ► [Rank Videos](#) ► [Safety Afloat](#)

Boy Scout Merit Badge Workbooks: usscouts.org -or- meritbadge.org **Merit Badge Books:** www.scoutstuff.org

Requirement Resources

These resources and more are at: <http://meritbadge.org/wiki/index.php/Fishing>.

1: **First Aid:** See http://meritbadge.org/wiki/index.php/First_Aid for these links and more:

First Aid Videos: [Basics](#) - [Basics2](#) - [Wilderness First Aid](#) - [CPR Basics](#) - [Venomous Snake Bite](#) - [First Aid Kits](#)

Other First Aid Links: [Mayo Clinic First Aid Guide](#) - [Class 1 Exam](#) - [Class 3](#) - [Warning Signs of Cancer](#) - [Heart Disease](#)

2: **Fishing equipment:** Cabela's: <http://www.cabelas.com/>

Bass Pro Shop: <http://www.basspro.com/>

3: **Fishing lessons online:** [ExpertVillage Fishing Videos](#)

► [Basics for Kids](#)

► [Advanced Fishing](#)

4. **Knots:** See <http://meritbadge.org/wiki/index.php/Pioneering> for these links and more:

Knot Videos: [Basics](#) - [Basics2](#) - [USScouts Knots](#) - [Animated knots](#) - [More Animated Knots](#) - [Still more](#)

Other Knot Links: [Knots](#) - [Sea Scout Knots](#) - [Ropers Knots Page](#) - [Climbing Knots](#) - [Fishing knots](#) - [Knots Index](#)

5: **Fishing Lures**

Cabela's: <http://www.cabelas.com/>

Bass Pro Shop: <http://www.basspro.com/>

6: **Leave No Trace** (see next page)

7: **Fishing Licenses and Laws for your state:** <http://www.takemefishing.org/fishing/license>

8: **Outdoor Code** (see next page)

9: **How to fillet a fish:** ► http://www.expertvillage.com/video-series/2211_fillet-saltwater-fish.htm

9: **Cooking:** See <http://meritbadge.org/wiki/index.php/Cooking> for these links and more:

Cooking Videos: [Food Selection](#) - [Food Quality](#) - [Stoves](#) - [Utensils](#) - [Water Purification](#) - [Leave No Trace](#)

Other Cooking links: [Leave No Trace](#) - [Cooking](#) - [Water Treatment](#) - [Stove Safety](#) - [Food Safety](#) - [Meal Ideas](#)

General Resources:

American Fisheries Society: <http://www.fisheries.org>

American Zoo and Aquarium Association: <http://www.aza.org>

American Sportfishing Assn.: <http://www.asafishing.org>

Future Fisherman Foundation: <http://www.futurefisherman.org>

