

# Outdoor Skills Pre-Requisites

## Pioneering:

2. Do the following:
  - a. Successfully complete [Tenderfoot](#) requirements 4a and 4b and [First Class](#) requirements 7a, 7b, and 7c. (These are the rope-related requirements.)
  - b. Tie the following: [square knot](#), [bowline](#), [sheepshank](#), [sheet bend](#), and roundturn with two half hitches.
  - c. Demonstrate the following: tripod and round lashings.
  
7. Build a scale model of a signal tower or a monkey bridge. Correctly anchor the model using either the 1-1-1 anchoring system or the log and stake anchoring method. Describe the design of your project and explain how the anchoring system works.

## Camping:

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.
  
8.
  - 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 under qualified supervision:
    1. Hike up a mountain, gaining at least 1,000 vertical feet.
    2. Backpack, snowshoe, or cross-country ski for at least 4 miles.
    3. Take a bike trip of at least 15 miles or at least four hours.
    4. Take a nonmotorized trip on the water of at least four hours or 5 miles.
    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.

## Wilderness Survival:

5. Put together a personal survival kit and explain how each item in it could be useful

## Cooking:

3.
  - c. Using the menu planned for requirement 3, make a food list showing cost and amount needed to feed three or more boys.
4. Using the menu planned for requirement 3, do the following and discuss the process with your merit badge counselor:
  - a. Prepare and serve for yourself and two others, the two dinners, one lunch, and one breakfast. Time your cooking so that each course will be ready to serve at the proper time.\*
  - b. For meals prepared in requirement 4a for which a fire is needed, use a lightweight stove or build a low-impact fire. Include support for your cooking utensils from rocks, logs, or like material. The same fireplace may be used for more than one meal. Use a backpacking stove to cook at least one meal. (Where local regulations do not allow you to do this, the counselor may change the requirement to meet the law.)
  - c. For each meal prepared in requirement 4a, use safe food-handling practices. Dispose of garbage, cans, foil, paper, and other rubbish by packing them out and depositing them in a proper container. After each meal, clean up the site thoroughly.
5.
  - b. Using the menu planned for requirement 5, make a food list showing cost and amount needed to feed three or more boys.
6. Using the menu planned for requirement 5, do the following:
  - a. Prepare and serve for yourself and two others, the trail breakfast and dinner. Time your cooking so that each course will be ready to serve at the proper time.
  - b. Use an approved trail stove (with proper supervision) or charcoal to prepare your meals.
  - c. For each meal prepared in requirement 6a, use safe food-handling practices. Dispose of garbage, cans, foil, paper, and other rubbish by packing them out and depositing them in a proper container. After each meal, clean up the site thoroughly.
8. Find out about three career opportunities in cooking. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

## Emergency Prep:

6.
  - b. Identify the government or community agencies that normally handle and prepare for the emergency services listed under 6a, and explain to your counselor how a group of Scouts could volunteer to help in the event of these types of emergencies.
  - c. Find out who is your community's emergency management director and learn what this person does to prepare, respond to, recover from, and mitigate and prevent emergency situations in your community. Discuss this information with your counselor and apply what you discover to the chart you created for requirement 2b.
  
8. Do the following:
  - a. Prepare a written plan for mobilizing your troop when needed to do emergency service. If there is already a plan, explain it. Tell your part in making it work.
  - b. Take part in at least one troop mobilization. Before the exercise, describe your part to your counselor. Afterward, conduct an "after-action" lesson, discussing what you learned during the exercise that required changes or adjustments to the plan.
  - c. Prepare a [personal emergency service pack](#) for a mobilization call. Prepare a [family kit](#) (suitcase or waterproof box) for use by your family in case an emergency evacuation is needed. Explain the needs and uses of the contents.

## Other Outdoor Skills

### Paul Bunyan Woodsman:

In the evenings at Camp Turrell, scouts interested in improving and mastering the skills of a woodsman should participate in the Paul Bunyan program. Having already earned the Totin' Chip, scouts will spend time reviewing the necessary skills, helping teach the Totin' Chip requirements to scouts in the Pathfinder program, and working on a pre-determined camp project. Sign up with the Outdoor Skills Director.

### Totin Chip:

The Scout must show his Scout leader, or someone designated by his leader, that he understands his responsibility to do the following:

- Read and understand woods tools use and safety rules from the [Boy Scout Handbook](#).
- Demonstrate proper handling, care, and use of the pocket knife, ax, and saw.
- Use knife, ax, and saw as tools, not playthings.
- Respect all safety rules to protect others.
- Respect property. Cut living and dead trees only with permission and with good reason.
- Subscribe to the [Outdoor Code](#).

The Scout's "Totin' Rights" can be taken from him if he fails in his responsibility.  
Sign up with the Outdoor Skills Director

## Aquatics Schedule

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
6:45-7:15		Polar Bear <i>(Mile Swim)</i>	Polar Bear <i>(Mile Swim)</i>	Polar Bear <i>(Mile Swim)</i>	
7:45-8:45	FLAG @ 7:45		BREAKFAST @ 8:00		
9:00-10:00	Lifesaving & Rowing	Lifesaving & Rowing	Lifesaving & Rowing	Lifesaving & Rowing	Lifesaving & Rowing
10:00-12:00	Swimming & Canoeing	Swimming & Canoeing	Swimming & Canoeing	Swimming & Canoeing	Swimming & Canoeing
12:30-2:00	LUNCH @ 12:30		SIESTA 1:00-2:00		
2:00-4:00	Swimming & Sailing	Swimming & Sailing	Swimming & Sailing	Swimming & Sailing	2:00 Iron Man 2:30 - 5:00 Water Carnival
4:00-5:00	Open Swim & Open Boating <i>(BSA Mile Swim)</i>	Open Swim & Open Boating <i>(BSA Mile Swim)</i> <i>(BSA Snorkeling)</i>	Open Swim & Open Boating <i>(BSA Mile Swim)</i> <i>(BSA Snorkeling)</i>	Open Swim & Open Boating <i>(BSA Mile Swim)</i> <i>(BSA Snorkeling)</i>	
5:45-6:45	FLAG @ 5:45		DINNER @ 6:00		
7:15-8:15	Aquatic Merit Badge Requirements <i>(CPR/Safety Afloat/ Safe Swim Defense)</i>	Open Swim & Boating <i>(BSA Mile Swim)</i> <i>(BSA Kayaking)</i>	Canoe Outpost <i>(Departs Waterfront at 7pm)</i>	Open Swim & Boating <i>(BSA Mile Swim)</i> <i>(BSA Kayaking)</i>	

[Return to Table of Contents](#)

# Aquatics Pre-Requisites

## Pre-Requisites:

\*\*\*\* All Aquatic Merite Badges require instruction in CPR. This will be completed in an extra session on Monday Night. If you come with your CPR card, it will save time for you. \*\*\*\*

## Swimming:

2. Do the following:

a. Identify the conditions that must exist before performing CPR on a person. Explain how to recognize such conditions

□ b. Demonstrate proper technique for performing CPR using a training device approved by your counselor. □

3. Before doing the following requirements, successfully complete **Second Class** rank requirements 7a-7c and **First Class** rank requirements 9a-9c.

**Second Class** rank requirements: □

7.a. Tell what precautions must be taken for a **safe swim**.

□ 7.b. Demonstrate your ability to jump feetfirst into water over your head in depth, level off and swim 25 feet on the surface, stop, turn sharply, resume swimming, then return to your starting place. □

7.c. Demonstrate water rescue methods by reaching with your arm or leg, reaching with a suitable object, and by throwing lines and objects. Explain why swimming rescues should not be attempted when a reaching or throwing rescue is possible, and explain why and how a rescue swimmer should avoid contact with the victim.

**First Class** rank requirements: □

9.a. Tell what precautions should be taken for a **safe trip afloat**. □

9.b. Before doing the following requirements, successfully complete the **BSA swimmer test**. □ Jump feetfirst into water over your head in depth, swim 75 yards in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards using an easy, resting backstroke. The 100 yards must be swum continuously and include at least one sharp turn. After completing the swim, rest by floating. □

9.c. With a helper and a practice victim, show a line rescue both as tender and as rescuer. (The practice victim should be approximately 30 feet from shore in deep water).

**\* Long Pants (Jeans are not good) and a Long Sleeved Button Down Shirt are needed for Requirement #4. \***

## Lifesaving:

*(This badge should be taken by an older scout who has previously completed the Swimming Merit Badge)*

1. a. Complete all Swimming Pre-Requisites. (listed above)

b. Swim continuously for 400 yards using each of the following strokes in a strong manner for at least 50 continuous yards: front crawl, sidestroke, breaststroke, and elementary backstroke.

## **BSA Lifeguard:**

*(This badge should be taken by an older scout who has previously completed the Lifesaving Merit Badge)*

1. Submit proof of age. You must be at least 15 years old to participate.
2. Submit written evidence of fitness for swimming activities (signed health history). □
3. Swim continuously for 550 yards, including at least 100 yards each of the following strokes in good form: front crawl, breaststroke, elementary backstroke, and sidestroke. □
4. Immediately following the above swim, tread water for two minutes. □
5. Starting in the water, swim 20 yards using a front crawl or breaststroke, surface dive 7 to 10 feet, retrieve a 10-pound object, surface, swim with the object 20 yards back to the starting point, and exit the water, all within 1 minute, 40 seconds.
6. Show evidence of current training in American Red Cross First Aid (valid for three years) and American Red Cross CPR/AED for the Professional Rescuer (valid for one year) or equivalent (includes any training for a camp health officer recognized by BSA national camp standards).

## **Rowing, Canoeing & Small Boat Sailing:**

*(It is recommended that older scouts take Small Boat Sailing after they have completed at least one boating mb.)*

All Boating Merit Badges require the following:

- a. Successfully complete the [BSA swimmer test](#).
- b. Identify the conditions that must exist before performing CPR on a person. Explain how such conditions are recognized. □
- c. Demonstrate proper technique for performing CPR using a training device approved by your counselor.
- d. Review and discuss Safety Afloat and demonstrate the proper fit and use PFDs.

### **Canoeing Outpost (Wednesday Night):**

The Canoeing Outpost will give scouts a chance to take advantage of the wilderness that Camp Turrell has to offer, but why stop at the wilderness. This outpost will go that extra step. Scouts will meet @ 7:00pm in front of the Waterfront Pavillion. They will skillfully pack their canoes, canoe to the island and around Beaver Dam Pond. After unpacking they will enjoy a campfire treat and the skies that Camp Turrell has to offer by sleeping under the stars.

### **Polar Bear Swim (Tuesday-Thursday):**

For those who just cannot get enough time in the aquatics area, join the polar bears of the aquatics staff for a chilly morning dip! The area opens at 6:45am for one half hour. Those interested should arrange to arrive with a buddy. Attend all three and get a personalized certificate.

### **Snorkeling, BSA: (Look at Schedule for Times)**

Scouts more interested in the offerings at our waterfront have the opportunity to explore the depths in our snorkeling program. Snorkeling scouts will venture out into the larger lake for some exploration later in the week, time permitting.

### **Kayaking, BSA: (Look at Schedule for Times)**

Scouts more interested in exploring Beaver Dam Pond will have the opportunity to do so while learning all kayaking components.

### **Mile Swim, BSA: (Look at Schedule for Times)**

Scouts interested in testing their limits in the water are encouraged to try the mile swim. In meeting the requirements, scouts must spend one hour each day at the waterfront working with our aquatics staff to prepare for the experience. On Friday, after spending four one-hour sessions preparing, scouts will have the opportunity to complete a one-mile swim. Please note: each scout planning on pursuing this award must also have a buddy scout and spotter to row a chase boat during the trial. This is a challenging pursuit and scouts must attend all Mile Swim training days in order to take the final test.

[\*Return to Table of Contents\*](#)

## Nature Schedule

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
7:45-8:45	FLAG @ 7:45		BREAKFAST @ 8:00		
9:00-10:00	Fishing Envi-Science	Fishing Envi-Science	Fishing Envi-Science	Fishing Envi-Science	Merit Badge Finish - Up OPEN for ALL MERIT BADGES
10:00-11:00	Mammal Study Weather	Mammal Study Weather	Mammal Study Weather	Mammal Study Weather	
11:00-12:00	Bird Study Soil & Water	Bird Study Soil & Water	Bird Study Soil & Water	Bird Study Soil & Water	
2:00-3:00	LUNCH @ 12:30		SIESTA 1:00-2:00		
2:00-3:00	Fish & Wildlife Nature	Fish & Wildlife Fishing	Fish & Wildlife Fishing	Fish & Wildlife Fishing	2:00 Iron Man 2:30 - 5:00 Water Carnival
3:00-4:00	Geology Envi-Science	Geology Envi-Science	Geology Envi-Science	Geology Envi-Science	
4:00-5:00	Weather Mammal Study Nature	Weather Mammal Study Nature	Weather Mammal Study Nature	Weather Mammal Study Nature	
5:45-6:45	FLAG @ 5:45		DINNER @ 6:00		
7:00-8:30	Astronomy Merit Badge <i>(Meet in Dining Hall @7pm)</i>	Astronomy Merit Badge <i>(Location TBD)</i>		<i>Astronomy Late Night Viewing (Meet in Waterfront @11pm)</i>	

[Return to Table of Contents](#)

# Nature Pre-Requisites

## Nature:

1. a. Birds
  1. In the field, identify eight species of birds.
  2. Make and set out a birdhouse OR a feeding station OR a birdbath. List what birds used it during a period of one month.
1. d. Insects and Spiders
  1. Collect, mount, and label 10 species of insects or spiders.
  2. Hatch an insect from the pupa or cocoon; OR hatch adults from nymphs; OR keep larvae until they form pupae or cocoons; OR keep a colony of ants or bees through one season.
1. f. Mollusks and Crustaceans
  1. Identify five species of mollusks and crustaceans.
  2. Collect, mount, and label six shells.

## Weather:

8. 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, 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. 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.

## Soil & Water Conservation:

7. Do **TWO** of the following:
- a. Make a trip to two of the following places. Write a report of more than 500 words about the soil and water and energy conservation practices you saw.
    1. An agricultural experiment.
    2. A managed forest or a woodlot, range, or pasture.
    3. A wildlife refuge or a fish or game management area.
    4. A conservation-managed farm or ranch.
    5. A managed watershed.
    6. A waste-treatment plant.
    7. A public drinking water treatment plant.
    8. An industry water-use installation.
    9. A desalinization plant.
  - b. Plant 100 trees, bushes and/or vines for a good purpose.
  - c. Seed an area of at least one-fifth acre for some worthwhile conservation purposes, using suitable grasses or legumes alone or in a mixture.
  - d. Study a soil survey report. Describe the things in it. Using tracing paper and pen, trace over any of the soil maps, and outline an area with three or more different kinds of soil. List each kind of soil by full name and map symbol.
  - e. Make a list of places in your neighborhood, camps, school ground, or park having erosion, sedimentation, or pollution problems. Describe how these could be corrected through individual or group action.
  - f. Carry out any other soil and water conservation project approved by your merit badge counselor.

## Astronomy:

5. Do the following:
  - a. List the names of the five most visible planets. Explain which ones can appear in phases similar to lunar phases and which ones cannot, and explain why.
  - b. Find out when each of the five most visible planets that you identified in requirement 5a will be observable in the evening sky during the next 12 months, then compile this information in the form of a chart or table. Update your chart monthly to show whether each planet will be visible during the early morning or in the evening sky.
6. At approximately weekly intervals, sketch the position of Venus, Mars or Jupiter in relation to the stars. Do this for at least four weeks and at the same time of night. On your sketch, record the date and time next to the planet's position. Use your sketch to explain how planets move.
9. With your counselor's approval and guidance, do ONE of the following:
  - a. Visit a planetarium or astronomical observatory. Submit a written report, a scrapbook, or a video presentation afterward to your counselor that includes the following information:
    1. Activities occurring there
    2. Exhibits and displays you saw
    3. Telescopes and instruments being used
    4. Celestial objects you observed.
  - b. Plan and participate in a three-hour observation session that includes using binoculars or a telescope. List the celestial objects you want to observe, and find each on a star chart or in a guidebook. Prepare an observing log or notebook. Show your plan, charts, and log or notebook to your counselor before making your observations. Review your log or notebook with your counselor afterward.
  - c. Plan and host a star party for your Scout troop or other group such as your class at school. Use binoculars or a telescope to show and explain celestial objects to the group.
  - d. Help an astronomy club in your community hold a star party that is open to the public.
  - e. Personally take a series of photographs or digital images of the movement of the Moon, a planet, an asteroid or meteoroid, or a comet. In your visual display, label each image and include the date and time it was taken. Show all positions on a star chart or map. Show your display at school or at a troop meeting. Explain the changes you observed.

## Mammal Study:

3. Do **ONE** of the following:
  - a. Spend three hours in each of two different kinds of natural habitats or at different elevations. List the different mammal species and individual members that you identified by sight or sign. Tell why all mammals do not live in the same kind of habitat.
  - b. Spend three hours on each of five days on at least a 25-acre area (about the size of 3 1/2 football fields). List the mammal species you identified by sight or sign.
  - c. From study and reading, write a simple history of one nongame mammal that lives in your area. Tell how this mammal lived before its habitat was affected in any way by man. Tell how it reproduces, what it eats, what eats it, and its natural habitat. Describe its dependency upon plants, upon other animals (including man), and how they depend upon it. Tell how it is helpful or harmful to man.
  
4. Do **ONE** of the following:
  - a. Under the guidance of a nature center or natural history museum, make two study skins of rats or mice. Tell the uses of study skins and mounted specimens respectively.
  - b. Take good pictures of two kinds of mammals in the wild. Record light conditions, film used, exposure, and other factors, including notes on the activities of the pictured animals.
  - c. Write a life history of a native game mammal that lives in your area, covering the points outlined in requirement 3c. List sources for this information.
  - d. Make and bait a tracking pit. Report what mammals and other animals came to the bait.
  - e. Visit a natural history museum. Report on how specimens are prepared and cataloged. Explain the purposes of museums.
  - f. Write a report of 500 words on a book about a mammal species.
  - g. Trace two possible food chains of carnivorous mammals from the soil through four stages to the mammal.

## Bird Study:

5. Observe and be able to identify at least 20 species of wild birds. Prepare a field notebook, making a separate entry for each species, and record the following information from your field observations and other references.
  - a. Note the date and time.
  - b. Note the location and habitat.
  - c. Describe the bird's main feeding habitat and list two types of food that the bird is likely to eat.
  - d. Note whether the bird is a migrant or a summer, winter, or year-round resident of your area.
  
6. Explain the function of a bird's song. Be able to identify five of the 20 species in your field notebook by song or call alone. For each of these five species enter a description of the song or call, and note the behavior of the bird making the sound. Note why you think the bird was making the call or song that you heard.
  
7. Do **ONE** of the following:
  - a. Go on a field trip with a local club or with others who are knowledgeable about birds in your area.
    1. Keep a list or fill out a checklist of all the birds your group observed during the field trip.
    2. Tell your counselor which birds your group saw and why some species were common and some were present in small numbers.

3. Tell your counselor what makes the area you visited good for finding birds.
- b. By using a public library or contacting the National Audubon Society, find the name and location of the Christmas Bird Count nearest your home and obtain the results of a recent count.
  1. Explain what kinds of information are collected during the annual event.
  2. Tell your counselor which species are most common, and explain why these birds are abundant.
  3. Tell your counselor which species are uncommon, and explain why these were present in small numbers. If the number of birds of these species is decreasing, explain why, and what, if anything, could be done to reverse their decline.
8. Do ONE of the following. For the option you choose, describe what birds you hope to attract, and why.
  - a. Build a bird feeder and put it in an appropriate place in your yard or another location.
  - b. Build a birdbath and put it in an appropriate place.
  - c. Build a backyard sanctuary for birds by planting trees and shrubs for food and cover.

## **Fish and Wild Life Management:**

5. Do ONE of the following:
  - a. Construct, erect, and check regularly at least two artificial nest boxes (wood duck, bluebird, squirrel, etc.) and keep written records for one nesting season.
  - b. Construct, erect, and check regularly bird feeders and keep written records of the kinds of birds visiting the feeders in the winter.
  - c. Design and implement a backyard wildlife habitat improvement project and report the results.
  - d. Design and construct a wildlife blind near a game trail, water hole, salt lick, bird feeder, or birdbath and take good photographs or make sketches from the blind of any combination of 10 wild birds, mammals, reptiles, or amphibians.
10. Using resources found at the library and in periodicals, books, and the Internet (with your parent's permission), learn about three different kinds of work done by fish and wildlife managers. Find out the education and training requirements for each position.

## **Geology:**

4. Do ONE of the following:
  - a. With your parent's and counselor's approval, visit with a geologist, land use planner, or civil engineer. Discuss this professional's work and the tools required in this line of work. Learn about a project that this person is now working on, and ask to see reports and maps created for this project. Discuss with your counselor what you have learned.
  - b. Learn about the career opportunities available in geology. Pick one that interests you and explain how to prepare for such a career. Discuss what courses might be useful for such a career. You may use resources found on the Internet (with your parent's permission), at the library, in books and articles from periodicals, from television programs, and at school.

## Environmental Science:

1. Make a timeline of the history of environmental science in America. Identify the contribution made by the Boy Scouts of America to environmental science. Include dates, names of people or organizations, and important events.
3. Do **ONE** activity in **EACH** of the following categories (using the activities in this {the merit badge} pamphlet as the basis for planning and carrying out your projects):
  - c. Water Pollution
    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.
  - 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.
    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.
    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.
  - f. Pollution Prevention, Resource Recovery, and Conservation
    1. Look around your home and determine 10 ways your family can help reduce pollution. Practice at least two of these methods for seven days and discuss with your counselor what you have learned.
    2. Determine 10 ways to conserve resources or use resources more efficiently in your home, at school, or at camp. Practice at least two of these methods for seven days and discuss with your counselor what you have learned.
    3. Perform an experiment on packaging materials to find out which ones are biodegradable. Discuss your conclusions with your counselor.
4. Choose two outdoor study areas that are very different from one another (e.g., hilltop vs. bottom of a hill; field vs. forest; swamp vs. dry land). For BOTH study areas, do ONE of the following:
  - a. Mark off a plot of 4 square yards in each study area, and count the number of species found there. Estimate how much space is occupied by each plant species and the type and number of nonplant species you find. Write a report that adequately discusses the biodiversity and population density of these study areas. Discuss your report with your counselor.
  - 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.
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. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

[Return to Table of Contents](#)

## Handicraft Schedule & Pre-Requisites

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
7:45-8:45	FLAG @ 7:45		BREAKFAST @ 8:00		
9:00-10:00	Basketry Sculpture	Basketry Sculpture	Basketry Sculpture	Basketry Sculpture	Merit Badge Finish - Up OPEN for ALL MERIT BADGES
10:00-11:00	Basketry Sculpture	Basketry Sculpture	Basketry Sculpture	Basketry Sculpture	
11:00-12:00	Art Woodcarving	Art Woodcarving	Art Woodcarving	Art Woodcarving	
2:00-3:00	LUNCH @ 12:30		SIESTA 1:00-2:00		
2:00-3:00	Art Woodcarving	Art Woodcarving	Art Woodcarving	Art Woodcarving	2:00 Iron Man 2:30 - 5:00 Water Carnival
3:00-4:00	Indian Lore Leatherwork	Indian Lore Leatherwork	Indian Lore Leatherwork	Indian Lore Leatherwork	
4:00-5:00	Indian Lore Leatherwork	Indian Lore Leatherwork	Indian Lore Leatherwork	Indian Lore Leatherwork	
5:45-6:45	FLAG @ 5:45		DINNER @ 6:00		
7:30-8:30			Camp Genius (Meet at Dining Hall)		

### Pre-Requisites:

\*\*\*\* Most Handicraft Merit Badges require the purchase of additional supplies at the Trading Post. Please encourage scouts to come prepared with additional funds \*\*\*\*

### Woodcarving:

1. Must have a Totin' Chip Card.

[Return to Table of Contents](#)

## Field Sports Schedule

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
7:45-8:45	FLAG @ 7:45      BREAKFAST @ 8:00				
9:00-10:00	Sports Athletics	Sports Athletics	Sports Athletics	Sports Athletics	Merit Badge Finish - Up
10:00-12:30					
12:30-1:00	LUNCH @ 12:30				
1:00-2:00	INTRAMURALS on the SPORTS FIELD				
2:00-3:00	Sports Athletics	Sports Athletics	Sports Athletics	Sports Athletics	2:00 Iron Man 2:30 - 5:00 Water Carnival
3:00-4:00					
4:00-5:00	Personal Fitness	Personal Fitness	Personal Fitness	Personal Fitness	
5:45-6:45	FLAG @ 5:45      DINNER @ 6:00				

[Return to Table of Contents](#)

# Field Sports Pre-Requisites

## Personal Fitness:

1. Do the following:
  - a. Before completing requirements 2 through 9, have your health-care practitioner give you a physical examination, using the Scout [medical examination form](#). Describe the examination. Tell what questions the doctor asked about your health. Tell what health or medical recommendations the doctor made and report what you have done in response to the recommendations. Explain the following:
    1. Why physical exams are important
    2. Why preventative habits are important in maintaining good health.
    3. Diseases that can be prevented and how.
    4. The seven warning signs of cancer.
    5. The youth risk factors that affect cardiovascular fitness in adulthood.
  - b. Have a dental examination. Get a statement saying that your teeth have been checked and cared for. Tell how to care for your teeth.
  
7. Outline a comprehensive 12-week physical fitness program using the results of your fitness tests. Be sure your program incorporates the endurance, intensity, and warm-up guidelines discussed in the *Personal Fitness* merit badge pamphlet. Before beginning your exercises, have the program approved by your counselor and parents.
  
8. Complete the physical fitness program you outlined in requirement 7. Keep a log of your fitness program activity (how long you exercised; how far you ran, swam, or biked; how many exercise repetitions you completed; your exercise heart rate; etc.). Repeat the aerobic fitness, muscular strength, and flexibility tests every two weeks and record your results. After the 12th week, repeat all four tests, record your results, and show improvement in each one. Compare and analyze your preprogram and postprogram body composition measurements. Discuss the meaning and benefit of your experience, and describe your long-term plans regarding your personal fitness.
  
9. Find out about three career opportunities in personal fitness. Pick one and find out the education, training, and experience required for these professions. Discuss what you learned with your counselor, and explain why this profession might interest you.