

**Rota-Kiwan Scout Reservation**

# **Merit Badge Prereqs**

**Merit Badge Weekend**

# Archery:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) State and explain the range safety rules:

(1) Three safety rules when on the shooting line.

(2) Three safety rules when retrieving arrows.

(3) The four whistle commands used on a range and their related verbal commands.

(c) Tell about your local and state laws owning and using archery tackle.

2. Do the following:

(b) Describe 3 or more types of arrows.

(c) Name the four principle materials for making archery shafts.

(e) Explain how to properly care for and store arrows.

3. Do the following:

(a) Explain proper use, care, and storage of, as well as the reasons for using tabs, arm guards, shooting gloves, and quivers.

(b) Explain the following terms: cast, draw weight, string height [fistmele], aiming, spine, mechanical release, freestyle, barebow.

4. Explain the following:

(a) The importance of obedience to a range safety officer or other person in charge of a range.

(b) The difference between an end and a round.

(c) The differences among field, target, and 3-D archery.

(d) How the five-color Federation Internationale de Tir a l'Arc [FITA] target is scored.

(e) How National Field Archery Association [NFAA] black and white field targets and blue indoor targets are scored.

(f) The elimination system used in Olympic archery competition.

# Astronomy:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain to your counselor the most likely hazards you may encounter while participating in astronomy activities, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

(b) Explain first aid for injuries or illness such as heat and cold reactions, dehydration, bites and stings, and damage to your eyes that could occur during observation.

(c) Describe the proper clothing and other precautions for safely making observations at night in cold weather. Then explain how to safely observe the Sun, objects near the Sun, and the Moon.

2. Explain what light pollution is and how it and air pollution affect astronomy.

# Canoeing:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain to your counselor the most likely hazards you may encounter while participating in canoeing activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

(b) Review prevention, symptoms, and first aid treatment for the following injuries or illnesses that could occur while canoeing: Blisters, cold-water shock and hypothermia, dehydration, heat-related illness, sunburn, sprains, and strains.

3. Do the following:

(b) Describe how the length and shape of a canoe affect its performance.

(c) Discuss the advantages and disadvantages of the different materials used to make canoes.

6. Discuss with your counselor the general care and maintenance of canoes, paddles, and other canoeing equipment.

13. Discuss the following types of canoeing.

(a) Olympic canoe sprint

(b) Flatwater and river touring

(c) Outrigger

(d) Marathon

(e) Freestyle

(f) Whitewater

(g) Canoe poling

# Cooking:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

## 1. Do the following:

(a) Explain to your counselor the most likely hazards you may encounter while participating in cooking activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

(b) Show that you know first aid for and how to prevent injuries or illnesses that could occur while preparing meals and eating, including burns and scalds, cuts, choking, and allergic reactions.

(c) Describe how meat, fish, chicken, eggs, dairy products, and fresh vegetables should be stored, transported, and properly prepared for cooking.

(d) Discuss with your counselor food allergies, food intolerance, and food-related illnesses and diseases.

(e) Discuss with your counselor why reading food labels is important. Explain how to identify common allergens such as peanuts, tree nuts, milk, eggs, wheat, soy, and shellfish.

## 2. Do the following:

(a) Using the MyPlate food guide or the current USDA nutrition model, give five examples for EACH of the following food groups, the recommended number of daily servings, and the recommended serving size:

(1) Fruits

(2) Vegetables

(3) Grains

(4) Proteins

(5) Dairy

(b) Explain why you should limit your intake of oils and sugars.

(c) Determine your daily level of activity and your caloric need based on your activity level. Then, based on MyPlate food guide, discuss with your counselor and appropriate meal plan for yourself for one day.

(d) Discuss your current eating habits with your counselor and what you can do to eat healthier, based on MyPlate food guide.

(e) Discuss the following food label terms: calorie, fat, saturated fat, Trans fat, cholesterol, sodium, carbohydrate, dietary fiber, sugar, protein. Explain how to calculate total carbohydrates and nutritional values for two servings, based on the serving size specified on the label.

## 3. Cooking basics. Do the following:

(a) Discuss EACH of the following cooking methods. For each one, describe the equipment needed, how temperature control is maintained, and name at least one food that can be cooked using that method: baking, boiling, broiling, pan frying, simmering, steaming, microwaving, grilling, foil cooking, and use of a Dutch oven.

## Cooking (continued):

(b) Discuss the benefits of using camp stove on an outing vs. a charcoal or wood fire.

(c) Describe with your counselor how to manage your time when preparing a meal so components for each course are ready to serve at the same time.

4. Cooking at Home. Using the MyPlate food guide or the current USDA nutrition model, plan a menu for three full days of meals (three breakfasts, three lunches, and three dinners) plus one dessert. Your menu should include enough to feed yourself and at least one adult, keeping in mind any special needs (such as food allergies) and how you kept your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.

Then do the following:

(a) Create a shopping list for your meals showing the amount of food needed to prepare and serve each meal, and the cost for each meal.

(b) Share and discuss your meal plan and shopping list with your counselor.

(c) Using at least five of the 10 cooking methods from requirement 3, prepare and serve yourself and at least one adult (parent, family member, guardian, or other responsible adult) one breakfast, one lunch, one dinner, and one dessert from the meals you planned. \*

(d) Time your cooking to have each meal ready to serve at the proper time. Have an adult verify the preparation of the meal to your counselor.

(e) After each meal, ask a person you served to evaluate the meal on presentation and taste, then evaluate your own meal. Discuss what you learned with your counselor, including any adjustments that could have improved or enhanced your meals. Tell how better planning and preparation help ensure a successful meal.

7. Food-related careers. Find out about three career opportunities in cooking. Select 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.

# Crime Prevention:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Discuss the role and value of laws in society with regard to crime and crime prevention. Include in your discussion the definitions of "crime" and "crime prevention."

2. Prepare a notebook of newspaper and other clippings that addresses crime and crime prevention efforts in your community.

4. After doing EACH of the following, discuss with your counselor what you have learned.

(a) Inspect your neighborhood for opportunities that may lead to crime. Learn how to do a crime prevention survey.

(b) Using the checklist in this (*the merit badge*) pamphlet, conduct a security survey of your home and discuss the results with your family.

5. Teach your family or patrol members how to protect themselves from crime at home, at school, in your community, and while traveling.

7. Do ONE of the following:

(a) Assist in the planning and organization of a crime prevention program in your community such as Neighborhood Watch, Community Watch, or Crime Stoppers. Explain how this program can benefit your neighborhood.

(b) With your parents and counselors approval, visit a jail or detention facility or a criminal court hearing. Discuss your experience with your counselor.

## Fire safety:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

6. Conduct a home safety survey with the help of an adult. Then do the following:

(a) Draw a home fire-escape plan, create a home fire-drill schedule, and conduct a home fire drill.

(b) Test a smoke alarm and demonstrate regular maintenance of a smoke alarm.

(c) Explain what to do when you smell gas and when you smell smoke.

(d) Explain how you would report a fire alarm.

(e) Explain what fire safety equipment can be found in public buildings.

(f) Explain who should use fire extinguishers and when these devices can be used.

(g) Explain how to extinguish a grease pan fire.

(f) Explain what fire safety precautions you should take when you are in a public building.

11. Visit a fire station. Identify the types of fire trucks. Find out about the fire prevention activities in your community.

12. Choose a fire safety-related career that interests you and describe the level of education required and responsibilities of a person in that position. Tell why this position interests you.



# First aid:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Satisfy your counselor that you have current knowledge of all first aid requirements for Tenderfoot, Second Class, and First Class ranks.

2. Do the following:

(a) Explain how you would obtain emergency medical assistance from your home, on a wilderness camping trip, and during an activity on open water.

(b) Define the term *triage*. Explain the steps necessary to assess and handle a medical emergency until help arrives.

(c) Explain the standard precautions as applied to bloodborne pathogens.

(d) Prepare a first aid kit for your home. Display and discuss its contents with your counselor.

5. Describe the symptoms, proper first aid procedures, and possible prevention measures for the following conditions:

(a) Hypothermia

(b) Convulsions / seizures

(c) Frostbite

(d) Dehydration

(e) Bruises, strains, sprains

(f) Burns

(g) Abdominal pain

(h) Broken, chipped, or loosened tooth

(i) Knocked out tooth

(j) Muscle cramps

# Fishing:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain to your counselor the most likely hazards you may encounter while participating in fishing activities, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

(b) Discuss the prevention of and treatment for the following health concerns that could occur while fishing, including cuts, scratches, puncture wounds, insect bites, hypothermia, dehydration, heat exhaustion, heatstroke, and sunburn.

(c) Explain how to remove a hook that has lodged in your arm.

(d) Name and explain five safety practices you should always follow while fishing.

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.

8. Explain what good outdoor sportsmanlike behavior is and how it relates to anglers. Tell how the Outdoor Code of the Boy Scouts of America relates to a fishing sports enthusiast, including the aspects of littering, trespassing, courteous behavior, and obeying fishing regulations.

# Geocaching:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain to your counselor the most likely hazards you may encounter while participating in Geocaching activities, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

(b) Discuss first aid and prevention for the types of injuries or illnesses that could occur while participating in Geocaching activities, including cuts, scrapes, snake bite, insect stings, tick bites, exposure to poisonous plants, heat and cold reactions (sunburn, heat stroke, heat exhaustion, hypothermia), and dehydration.

(c) Discuss how to properly plan an activity that uses GPS, including using the buddy system, sharing your plan with others, and considering the weather, route, and proper attire.

2. Discuss the following with your counselor:

(a) Why you should never bury a cache.

(b) How to use proper Geocaching etiquette while hiding or seeking a cache, and how to properly hide, post, maintain, and dismantle a Geocache.

(c) The principles of leave no trace as they apply to Geocaching.

3. Explain the following terms used in Geocaching: waypoint, log, cache, accuracy, difficulty and terrain ratings, attributes, trackable. Choose five additional terms to explain to your counselor.

7. With your parents' permission\*, go to [www.geocaching.com](http://www.geocaching.com). Type in your zip code to locate public Geocaches in your area. Share with your counselor the posted information about three of those Geocaches. Then, pick one of the three and find the cache.

\*To fulfil this requirement, you will need to set up a free user account with [www.geocaching.com](http://www.geocaching.com). Before doing so, ask your parent for permission and help.

# Kayaking:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain to your counselor the hazards you are most likely to encounter while participating in kayaking activities, including weather and water-related hazards, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

(b) Review prevention symptoms and first aid treatment for the following injuries or illnesses that can occur while kayaking: blisters, cold-water shock and hypothermia, heat-related illnesses, dehydration, sunburn, sprains, and strains.

(c) Review the BSA Safety Afloat policy. Explain to your counselor how this applies to kayaking.

# Leatherwork:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain to your counselor the hazards you are most likely to encounter while using leatherwork tools and materials, and what you should do to anticipate, help prevent, mitigate, or lessen these hazards.

(b) Show that you know first aid for injuries or illnesses that could occur while working with leather, including minor cuts and scratches, puncture wounds, ingested poisoning, and reactions to exposure to chemicals, such as dyes, cements, and finishes used in leatherworking.

2. Explain to your counselor:

(a) Where leather comes from.

(b) What kinds of hides are used to make leather.

(c) What are five types of leather.

(d) What are the best uses for each type of leather.

# Lifesaving:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Before doing requirements 2 through 17:

(a) Complete Second Class rank requirements 5a through 5d and First Class rank requirements 6a, 6b, and 6e.

Second Class rank requirements 5a through 5d:

(5a) Tell what precautions must be taken for a safe swim.

(5b) Demonstrate your ability to pass the BSA beginner test: 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.

(5c) Demonstrate water rescue methods by reaching with your arm or leg, by 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.

(5d) Explain why and how a rescue swimmer should avoid contact with the victim.

First Class rank requirements 6a, 6b, and 6c:

(6a) Successfully complete the BSA swimmer test.

(6b) Tell what precautions must be taken for a safe trip afloat.

(6c) 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.)

2. Discuss and review with your counselor the principles of BSA Safe Swim Defense.

3. Explain the following:

(a) Common drowning situations and how to prevent them.

(b) How to identify persons in the water who need assistance.

(c) The order of methods in water rescue.

(d) How rescue techniques vary depending on the setting and the condition of the person needing assistance.

(e) Situations for which in-water rescues should not be undertaken.

7. List various items that can be used as aids in a "go" rescue. Explain why buoyant aids are preferred

17. With your counselor, discuss causes, prevention, and treatment of other injuries or illnesses that could occur while swimming or boating, including hypothermia, dehydration, heat-related illnesses, muscle cramps, sunburn, stings, and hyperventilation.

# Metalwork:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Read the safety rules for metalwork. Discuss how to be safe while working with metal. Discuss with your counselor the additional safety rules that apply to the metalwork option you choose for requirement 5.
2. Define the terms native metal, malleable, metallurgy, alloy, nonferrous, and ferrous. Then do the following:
  - (a) Name two nonferrous alloys used by pre-Iron Age metalworkers. Name the metals that are combined to form these alloys.
  - (b) Name three ferrous alloys used by modern metalworkers.
  - (c) Describe how to work-harden a metal.
  - (d) Describe how to anneal a nonferrous and a ferrous metal.
4. Find out about three career opportunities in metalworking. 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.

# Orienteering:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Show that you know first aid for the types of injuries that could occur while orienteering, including cuts, scratches, blisters, snakebite, insect stings, tick bites heat and cold reactions (sunburn, heatstroke, heat exhaustion, hypothermia), and dehydration. Explain to your counselor why you should be able to identify poisonous plants and poisonous animals that are found in your area.
2. Explain what orienteering is.
6. Do the following:
  - (a) Identify 20 international control description symbols. Tell the meaning of each symbol.
  - (b) Show a control description sheet and explain the information provided.
  - (c) Explain the following terms and tell when you would use them: attack point, collecting feature, catching feature, aiming off, contouring, reading ahead, handrail, relocation, rough versus fine orienteering.



# Pottery:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Explain to your counselor the precautions that must be followed for the safe use and operation of a potter's tools, equipment, and other materials.
2. Do the following:
  - (a) Explain the properties and ingredients of a good clay body for the following:
    - (1) Making sculpture
    - (2) Throwing on the wheel
  - (b) Tell how three different kinds of potter's wheels work.
4. Explain the meaning of the following pottery terms: bat, wedging, throwing, leather hard, bone dry, greenware, bisque, terra-cotta, grog, slip, score, earthenware, stoneware, porcelain, pyrometric cone, and glaze.
6. Explain the scope of the ceramic industry in the United States. Tell some things made other than craft pottery.
7. With your parent's permission and your counselor's approval, do ONE of the following:
  - (a) Visit the kiln yard at a local college or other craft school. Learn how the different kinds of kilns work, including low fire electric, gas or propane high fire, wood or salt/soda, and raku.
  - (b) Visit a museum, art exhibit, art gallery, artists' co-op, or artist's studio that features pottery. After your visit, share with your counselor what you have learned.
  - (c) Using resources from the library, magazines, the Internet (with your parent's permission), and other outlets, learn about the historical and cultural importance of pottery. Share what you discover with your counselor.
8. Find out about career opportunities in pottery. 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.

# Rifle Shooting:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain why BB and pellet air guns must always be treated with the same respect as firearms.

(b) Describe how you would react if a friend visiting your home asked to see your or your family's firearm(s).

(c) Explain the need for, and use and types of, eye and hearing protection.

(d) Give the main points of the laws for owning and using guns in your community and state.

(e) Explain how hunting is related to the wise use of renewable wildlife resources.

(f) Obtain a copy of the hunting laws for your state. Explain the main points of hunting laws in your state and give any special laws on the use of guns and ammunition.

(g) Identify and explain how you can join or be a part of shooting sports activities.

(h) Explain to your counselor the proper hygienic guidelines used in shooting.

(i) Give your counselor a list of sources that you could contact for information on firearms and their uses.

# Search and Rescue:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain to your counselor the hazards you are most likely to encounter while participating in search and rescue (SAR) activities, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

(b) Discuss first aid and prevention for the types of injuries or illnesses that could occur while participating in SAR activities, including: snakebites, dehydration, shock, environmental emergencies such as hypothermia or heatstroke, blisters, and ankle and knee sprains.

2. Demonstrate knowledge to stay found and prevent yourself from becoming the subject of a SAR mission.

(a) How does the buddy system help in staying found and safe?

(b) How can knowledge of the area and its seasonal weather changes affect your plans?

(c) Explain how the Ten Essentials are similar to a “ready pack.”

3. Discuss the following with your counselor:

(a) The difference between *search* and *rescue*.

(b) The difference between *PLS* (*place last seen*) and *LKP* (*last known point*)

(c) The meaning of these terms:

(1) AFRCC (Air Force Rescue Coordination Center)

(2) IAP (Incident Action Plan)

(3) ICS (Incident Command System)

(4) Evaluating search urgency

(5) Establishing confinement

(6) Scent item

(7) Area air scent dog

(8) Briefing and debriefing

4. Find out who in your area has authority for search and rescue and what their responsibilities are. Discuss this with your counselor, and explain the official duties of a search and rescue team.

10. Find out about three career or volunteer opportunities in search and rescue. Pick one and find out the education, training, and experience required for this professional or volunteer position. Discuss this with your counselor, and explain why this position might interest you.

# Signs, Signals, and Codes:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Discuss with your counselor the importance of signs, signals, and codes, and why people need these different methods of communication. Briefly discuss the history and development of signs, signals, and codes.
2. Explain the importance of signaling in emergency communications. Discuss with your counselor the types of emergency or distress signals one might use to attract airborne search-and-rescue personnel if lost in the outdoors or trying to summon assistance during a disaster. Illustrate these signaling examples by the use of photos or drawings.
10. Briefly discuss the history of secret code writing (cryptography). Make up your own secret code and write a message of up to 25 words using this code. Share the message with a friend or fellow Scout. Then share the message and code key with your counselor and discuss the effectiveness of your code.

# Swimming:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain to your counselor how Scouting's Safe Swim Defense plan anticipates, helps prevent, and mitigate, and provides responses to likely hazards you may encounter during swimming activities.

(b) Discuss the prevention and treatment of health concerns that could occur while swimming, including hypothermia, dehydration, sunburn, heat exhaustion, heatstroke, muscle cramps, hyperventilation, spinal injury, stings and bites, and cuts and scrapes.

8. Explain the health benefits of regular aerobic exercise, and discuss why swimming is favored as both fitness and therapeutic exercise.

# Wilderness Survival:

Please complete the following prerequisites on paper and have them ready to turn in on Saturday during class.

1. Do the following:

(a) Explain to your counselor the hazards you are most likely to encounter while participating in wilderness survival activities, and what you should do to anticipate, prevent, mitigate, or lessen these hazards.

4. Describe the steps you would take to survive in the following conditions:

(a) Cold and snowy

(b) Wet (forest)

(c) Hot and dry (desert)

(d) Windy (mountains or plains)

(e) Water (oceans, lake, or river)

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

12. Explain why it usually is not wise to eat edible wild plants or wildlife in a wilderness survival situation.