

**Preparation for:**

Wilderness Survival Merit Badge  
Order of the Arrow ordeals

**Takeaways**

- Explores the pros and cons of different wilderness survival methods
- Introduces skills boys will need later in Scouting or in any survival situation
- Provides opportunities to do things they have never done before

**Complete Requirements 1 and 2.**

1. Complete a. and your choice of b. or c.
  - a. On a campout or outdoor activity with your den or family, cook two different recipes that do not require pots and pans.
  - b. With the help of an adult, demonstrate one way to light a fire without using matches.
  - c. Using tree limbs or branches that have already fallen or been cut, build a shelter that will protect you overnight.
2. Do all of the following.
  - a. Learn what items should be in an outdoor survival kit that you can carry in a small bag or box in a day pack. Assemble your own small survival kit, and explain to your den leader why the items you chose are important for survival.
  - b. With your den, demonstrate two ways to treat drinking water to remove impurities.
  - c. Discuss what to do if you become lost in the woods. Tell what the letters "S-T-O-P" stand for. Tell what the universal emergency signal is. Describe three ways to signal for help. Demonstrate one of them. Describe what you can do to help rescuers find you.
  - d. Make a list of four qualities you think a leader should have in an emergency and why they are important to have. Pick two of them, and act them out for your den. Describe how each relates to a point of the Scout Law. Describe how working on this adventure gave you a better understanding of the Boy Scout motto.

## 1a. Cook two different recipes that do not require pots and pans

### Tin Foil Dinners

In the quest to streamline your camping trips, foil packet meals can be one of your greatest allies. It's cooking at its simple best; you take some ingredients, wrap them up in a foil parcel, and place the pouch in a campfire's coals to cook. You can prepare these foil packets before you head out into Mother Nature, and they require no pots and pans, no plates, and no clean up. All you need is a fork and some fire.

### Foil Packet Cooking Tips

- Use heavy duty foil. You don't want the foil to rip and have ashes get in and your dinner leak out. If you use regular foil, double up on the sheets. If your food is heavy, and/or if you plan to eat directly from the pack, it's a good idea to double up even on the heavy duty sheets.
- Spray the side of the foil on which you're going to place the food with cooking spray before you add your ingredients and seal it up.
- When placing your ingredients on the sheet of foil, always put the meat on the bottom as it takes the longest to cook.
- Cook your foil packet on the fire's coals, not in the fire itself. Ideally, you want to place the packet on a bed of coals about 2 inches thick.
- Hard, raw vegetables like carrots and potatoes take a long time to cook. If you don't want to wait, use the canned variety.
- When cooking meat, throw in some high-moisture veggies like tomatoes and onions. This will keep the meat from drying out.
- Cooking times will depend on how hot the fire is and the kind of food in the packet. I generally err on the side of cooking it too long — this is the kind of food that you don't need to be overly delicate with. Flip the packets over a few times during cooking, and open and check on how the food is progressing from time to time.
- When it's finished cooking, open your foil packet carefully — it's full of hot steam!

### Making Your Foil Packs

Making a good foil pack is essential to foil dinner cooking success. There are a couple of different kinds of foil packs you can make depending on what you're cooking.

#### The Flat Pack

The flat pack is best for foods like meat where you're looking for more browning than steaming.

1. Place the food in the middle of the sheet of foil. If you needed to mix the ingredients up, do so in a separate bowl before transferring it to the foil.

2. Tear off a sheet of heavy-duty foil that is about twice as long as the food you'll be wrapping. It's better to overestimate the length than to place your food on it, start wrapping it up, and realize you don't have



enough foil to keep everything in and make your folds.

3. Bring the long sides together in the center and crease them together, making tight folds until the foil is flat next to the food.

4. Tightly roll up the shorter sides until they meet the food.

### **The Tent Pack**

The tent pack provides a pocket of air that allows for greater steaming. Thus, it's best for foods you want steamed like fruits, vegetables, and meat/vegetable combos.

1. Tear off a sheet of foil just as you would for the flat pack.

2. Place the food in the middle of the foil.

3. Bring the long sides together in the center and tightly fold them together towards the food. This time, stop folding a few inches before you get to the food, leaving a pocket of space and creating a "tent."

4. Tightly roll up the shorter sides, again leaving an inch or so of space between the end of the fold and the food.



## **9 Easy and Delicious Foil Packet Recipes**

### **Hobo Dinner**

- ¼ lb. hamburger
- 1 potato
- 1 carrot
- ketchup or BBQ sauce
- 1/4 onion, optional
- Seasoning: salt, pepper, whatever you like...

Wash, peel, and dice the vegetables. Pull the hamburger into bits and place in the center of the foil. Season hamburger and add vegetables and sauce as desired. Wrap in a flat pack, and place on hot coals for 10 minutes, then flip the pack over and cook for another 10 minutes.

### **Sausage and Eggs**

- 1 frozen hash brown patty
- 2 eggs, scrambled, uncooked
- 2 frozen sausage patties
- spices and seasonings
- cheese (optional)

Crimp the sides of your sheet of foil so that the eggs won't go anywhere when you add them. First place your hash brown patty on the foil. Then place the eggs on top of the hash brown patty. Then place the sausage patties on top. Season with spices and condiments and wrap up in a tent pack.

Place on hot coals and cook for 15 minutes. Add the cheese when it's ready (it turns out better than cooking it in the pack).

### **Muffins in an Orange Shell**

- 6 oranges
- 1 package of just-add-water muffin mix

Mix up the muffin mix as instructed. Cut off the quarter top of the oranges. Carefully scoop out the pulp; do not break the skin. Pour the muffin mix into the oranges. Wrap the oranges in foil, crimping the foil around the hole at top of the shell, but leaving it open.

Place the oranges upright in a stable position on hot coals and cook for about 10-15 minutes.

### **Chicken Casserole**

- 1 chicken breast
- 1 cup of broccoli
- 1/2 cup of prepared rice
- 1 can of cream of chicken soup
- ranch dressing
- cheddar cheese
- spices

Pound the chicken thinly as chicken can take a while to cook.

Mix together the broccoli, soup, and cheese. Add spices and condiments. Place the chicken breast on the center of the foil. Top with the soup mix and then rice. Seal in a tent pack.

Cook on hot coals for about 25 minutes (the thicker your chicken breast, the longer it will take).

### **Catch of the Day**

- Fish that you caught and filleted
- ¼ cup of onions
- 1 tablespoon of butter, melted
- lemon juice
- salt and pepper
- parsley
- dillweed
- paprika

Mix the melted butter with a dash of lemon juice and the above spices to taste (with the exception of the paprika). Place the onions on the foil sheet. Place the fish on top and sprinkle with paprika. Wrap the foil in a flat pack.

Place on hot coals and scoop some hot coals on top of the packet. Cook for 15-20 minutes.

### **Apricot-Glazed Pork Chops**

- 1 boneless pork chop
- 1/3 cup apricot preserves
- 1 tablespoon soy sauce
- ½ package frozen stir-fry vegetables
- garlic powder, salt, pepper

Mix together the apricot preserves, the soy sauce, and any seasoning you'd like to add. Place the pork chop in the center of the sheet of foil. Spread half of the apricot sauce on top. Put the veggies on top/around the pork chop. Pour the rest of the sauce over the whole thing. Wrap in a tent pack. Place on hot coals and cook for 20 minutes.

### **Thanksgiving Dinner**

- 1 turkey cutlet
- 1 cup of prepared stuffing
- ½ cup of turkey gravy
- ½ cup of green beans
- ¼ dried cranberries
- salt, pepper, thyme, marjoram

Place turkey cutlet on sheet of foil. Put the stuffing on top and the green beans around the cutlet. Pour gravy over everything and sprinkle with the dried cranberries and seasonings. Wrap in a tent pack and place on hot coals for 20 minutes.

### **Corn on the Cob**

- 4 ears of shucked corn
- ¼ cup butter or olive oil
- Parmesan cheese
- ½ teaspoon dried rosemary leaves
- salt and pepper
- 4 ice cubes

Place the ears of corn on a large sheet of foil. Spread the butter on top. Sprinkle with the seasonings and parmesan cheese. Put the ice cubes on top. Wrap up into a tent pack. Place on hot coals and cook for 20 minutes. Makes 4 servings.

### **Pineapple Upside Donut Cake**

Every delicious foil dinner deserves a delicious foil dessert. This is an awesome one.

- 1 ring of pineapple
- 1 tablespoon butter, softened
- 1 tablespoon brown sugar
- 1 cake donut

Place donut on sheet of foil. Mix the softened butter and brown sugar together and spread it over the donut. Place the pineapple ring on top. Wrap the donut in a tight flat pack. Place on hot coals and cook for 5-7 minutes.

## Cook on a Stick

Find a stick that is long enough to enable you to sit far enough from the fire to not be scorched as you cook, and sturdy enough that your stick won't droop and drop your food into the flames. Green wood sticks generally work best, as they're less likely to catch fire and burn through.

After you choose your stick, whittle off the bark on the end so you have a nice, smooth, clean area and a sharp tip.

Here are some foods you can cook on a stick:

**Hotdog** – skewer the hotdog down its length with the stick, hold it over the fire (hotdogs are hard to burn). Just 'heat and eat'.

**Biscuits/Bread** – start with a can of refrigerated biscuit or crescent roll dough. The latter comes ready in thin strips and is easiest to wrap around a stick; if using circular biscuits, flatten them until they're about  $\frac{3}{4}$  of an inch thick. Wrap the dough around the end of the stick, firmly pinching the sides together. Slowly roast it like a marshmallow, turning constantly until golden brown. Patience is your friend here; if you try to hurry things up by holding it too close to the embers, the outside will quickly burn, leaving the inside gooey and undone.



**Bacon** – Just wrap a piece around a stick (if the stick has a couple nubs for traction, all the better), and hold it over the fire. Bacon burns and chars easily, so take it slow.



**Marshmallow** – To cook a marshmallow properly — golden brown and slightly crisp on the outside, hot and gooey on the inside — look for a little “cave” of coals within your fire and place your marshmallow over it. Rotate the stick until all sides are evenly browned by the fire.



## 1b. Demonstrate one way to light a fire without using matches

### Magnifying Glass

The sun is very powerful. With a curved lens like a magnifying glass, you can focus the sun's rays to produce a very small point of heat. Here's how.

Protect your tinder from any breezes. Focus the light directly on your tinder and watch for smoke. Once you see it, gently blow on the ember to get the fire to spread to more of your tinder. As the fire spreads, add some kindling and then fuel to sustain the fire.

### Flint and Steel

Strike the flint sharply against the steel to produce brief sparks. Direct your sparks down into your tinder. Watch for smoke and gently blow on your ember so it will spread. Add kindling and fuel as the fire builds





## 1c. Using tree limbs or branches, build a shelter

Doing this part of the adventure can seem daunting, but give boys enough sticks, and they'll build a shelter. Plan an outdoor field day in an area where you know there will be some deadfall, and challenge the boys to work in teams to build a shelter.



## 2a. Survival Kit

*Learn what items should be in an outdoor survival kit that you can carry in a small bag or box in a day pack. Assemble your own small survival kit, and explain to your den leader why the items you chose are important for survival.*

A survival kit is intended to keep you alive while you wait for rescue. This is not meant to be a heavy kit that takes up a lot of space in your backpack, in fact, the best survival kits can be placed in something as small as an Altoids™ tin.



The following is recommended for an easily-packable survival kit:

1. **First-aid kit:** (assortment of bandages; antibiotic ointment; safety pins)
2. **Pocketknife**
3. **Flashlight**
4. **Fire Starter(s):** Waterproof matches with a striker (sandpaper) in a mini sealable bag. Flint and Steel. Magnesium fire starter. A small lighter. Magnifying glass. (have more than one)
5. **Cotton Tinder:** Dryer lint or Tinder-Quik fire tabs (keep dryer lint dry in a mini sealable bag)
6. **Compass**
7. **Signal Mirror:** Or the lid of the tin

8. **Needle and Thread:** thread the needle so the thread is halfway through, then wind the thread around the needle
9. **Fishing Kit:** 3 hooks, 3 sinkers, fishing line.
10. **Compact Emergency Whistle**
11. **Duct Tape (3 yards)**
12. **Can opener** (P38)
13. **Water bag** (Reynolds Oven Bag) – cut down to fit in the tin, with a mark for 1-quart marking
14. **Water purification tablets** in a sealed bag or mini glass vial (with instructions included)
15. 10 feet of **24-gauge snag wire**.
16. 2 feet of **aluminum foil**

## **The Ten “C”s for Survival**

Dave Canterbury developed a simplified list of survival tools. The first five “C”s are needed for basic survival kit, while the second five “C”s are needed for extended survival.

1. **Cutting Tool** – A strong, sharp knife
2. **Combustion Device** – matches, lighters, ferro rods, etc. Anything that can create combustion to help you build a fire
3. **Cover** – This is a combination of proper clothing for the conditions, blankets, and waterproof items like a nylon poncho and/or tarp.
4. **Container** – This container must be able to be placed in a fire in order to purify water by boiling it.
5. **Cordage** – there are many uses for cordage (paracord, for example), from gear repair to bindings for shelters.
6. **Cotton bandanas** – Multiple uses
7. **Cargo tape** – duct tape, Gorilla tape, or gaff tape
8. **Compass**
9. **Cloth sail needle**
10. **Candling device** – flashlight, headlamp, etc.

## 2b. Treating Water

*With your den, demonstrate two ways to treat drinking water to remove impurities.*

Water in the wilderness can contain parasites, bacteria, and other pathogens that can make you extremely ill, just from one drink. Any water found should be treated using one of these methods:



### Boiling

Boiling is one of the safest methods of disinfection. Five minutes of a rolling boil will kill most organisms, but ten minutes is safer. Higher elevations can effect boiling times. Be sure to let the water cool before drinking it.



### Filters and Purifiers

Water filters work by physically straining out protozoan cysts (such as *Cryptosporidium* and *Giardia lamblia*) and bacteria (such as *E. coli*, *Salmonella*, *Campylobacter* and *Shigella*). Water purifiers also combat viruses, which are too tiny for most filters to effectively catch.

One of the smallest, lightest of water disinfecting is the straw style of water filter. Most of these filters contain an activated carbon filter element, which not only filters out larger bacteria and pathogens, but also removes odd flavors and odors from the water.



### Disinfecting Tablets

Effective against protozoa, bacteria and viruses, you simply add them to gathered water and wait. Products are typically iodine- or chlorine-based. The down-side is the chemical taste these leave in the water. Many consider these a back-up plan when they don't have a working filter, and don't have time to boil water. Though for some tablets, the wait time before drinking is 30 minutes to 4 hours, longer for icy cold water.

Iodine products can be a concern to pregnant women and people with a thyroid condition.

### Water Treatment Tips and Best Practices

Avoiding a few key mistakes and taking a few precautions will make any treatment method more effective.

- **Separate and clearly designate dirty and clean water containers.**
- **Pay close attention to directions** because every product has detailed steps to avoid cross contamination (introducing nontreated water into your treated water).
- **Seek out clean water** because sediment impairs treatment effectiveness. If only murky sources are available, use a prefilter or allow sediment to settle from gathered water.
- **Keep your hands clean** by packing hand sanitizer and using it often.
- **Keep camp, toilet and dishwashing areas at least 200 feet from any water source.**

## 2c. S-T-O-P

*Discuss what to do if you become lost in the woods. Tell what the letters “S-T-O-P” stand for. Tell what the universal emergency signal is. Describe three ways to signal for help. Demonstrate one of them. Describe what you can do to help rescuers find you.*

If you don't know where you are or which way to go, STAY PUT. People will start looking for you as soon as someone realizes you're missing. Meanwhile, it's time to use your No. 1 survival tool — your brain. Follow the S-T-O-P signs.

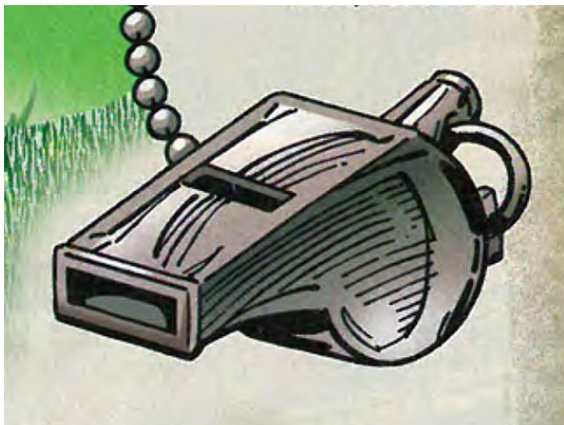
**S (Stop):** Stay put. The worst thing you can do when you're lost is panic and leave your current location. Take a deep breath, calm yourself, and sit down. Drink some water, or eat a little food. If you're cold, put on your jacket.

**T (Think):** Once you've calmed down, think about your situation. Think about how you got where you are. You may discover that you're not as lost as you thought.

**O (Observe):** Look around. Listen for other Scouts. Check your supplies and the area around you for things that can help you survive.

**P (Plan):** Finally, make a plan for dealing with your situation. If you are absolutely sure you know the way back to your group, follow it carefully. Mark your way with broken branches or piles of stones so you can come back to your starting point if you need to. If you don't know the way back to your group, stay where you are. Decide what your priorities are, and take care of them one at a time.

## Signaling



Help searchers find you. The universal distress call always comes in threes: Three shouts, three blasts on a whistle. **Start calling. Make a smoky fire in the daytime** (toss grass or green leaves on the flames) or a **bright fire at night. Spread extra clothing or any bright gear in the open** to catch the eye of a rescue pilot.

On a clear day, the flash of a signal mirror can be seen up to 100 miles away. Any mirror will do. To aim it, hold the mirror with one hand and extend the other hand in front of you. Tilt the mirror until its reflected light fills your empty palm. Make a V with your illuminated

fingers, then sight through the V toward an aircraft.

The lid of a tin can, a piece of foil or anything shiny can also work.

**Don't practice signaling techniques in a place where other people might be concerned you are really in trouble, and don't practice building a fire without adult supervision.**



## 2d. Emergency Qualities

*Make a list of four qualities you think a leader should have in an emergency and why they are important to have. Pick two of them, and act them out for your den. Describe how each relates to a point of the Scout Law. Describe how working on this adventure gave you a better understanding of the Boy Scout motto.*

Leaders have many skills, and most of them are useful in emergencies. For example, a leader knows how to listen to other group members' ideas and give everyone a chance to speak. This example is one way a Scout is courteous.

Each of the 12 points of the Scout Law are qualities a leader should have in an emergency situation. The boys should identify 4 and choose 2 to act out, but here are examples of how all 12 are beneficial leadership qualities.

1. Trustworthy – trust is vital in an emergency situation. If a leader is forthright and honest with those around him, they will find it easy to trust him.
2. Loyal – a good leader stays loyal to those in his care. He will think of them before he thinks of himself.
3. Helpful – a good leader offers immediate help in an emergency to whomever needs it.
4. Friendly – a good leader is friendly to everyone during an emergency. This helps gain their trust.
5. Courteous – a good leader will listen to everyone and give them a chance to help with emergency planning.
6. Kind – a good leader shows kindness to those who need help.
7. Obedient – a good leader knows the rules for survival and doesn't try to take shortcuts with them.
8. Cheerful – a good leader helps keep everyone's spirits up.
9. Thrifty – a good leader doesn't waste resources in an emergency situation.
10. Brave – a good leader needs to take charge of the situation, even when it's frightening.
11. Clean – a good leader knows that infection and contamination needs to be avoided in an emergency.
12. Reverent – a good leader is respectful to the beliefs of others, and allows them time to pray or meditate in order to stay calm.

Finally, remind the boys of the Scout Motto:

**BE PREPARED**

Ask them how this adventure has helped them better understand that motto.