girl scouts river valleys

AMBASSADOR SURVIVAL CAMPER BADGE

Badge Purpose: When you've earned this badge, you'll have planned and gone on a survival camping trip with a group of Girl Scouts or family members.

Activity Plan Length: This plan should be completed at your own pace.

Activity	Materials Needed
Getting Started • Plan your trip!	☐ Computer with internet access
Minimalist Maker • Learn how to create a useful emergency item using only duct tape.	☐ Duct tape ☐ Scissors
Staying Warm Science • Learn the science behind staying warm in survival situations.	☐ "The Science Behind Staying Warm" activity sheet ☐ Various materials
Adventure Cooking • Practice three different camp cooking methods.	☐ Camp stove ☐ Fuel ☐ Fire-making materials ☐ Various cooking supplies ☐ Computer with internet access
Take your trip! • Take your survival camping trip!	☐ Camping gear suitable for trip ☐ Trip itinerary
Wrapping Up	☐ Journal, pens/pencils

Getting Started

Badge Connection: Step 1 – Plan a survival camping trip and Step 2 – Gather your gear
Materials Needed: Computer with internet access

Survival camping is defined as camping with limited supplies. This does *not* mean intentionally getting lost in the wilderness—it means challenging yourself to use fewer camping amenities, safely. Survival camping takes place in a backcountry or primitive campsite.

Decide where and when you'd like to camp and if you'll camp with your troop, Girl Scout sisters, your family, or a credible outdoor group. Before you go, consider:

Permits
See if permits are required for your planned camping area. Some areas will require you to reserve permits months in advance. Others will require a permit when you arrive.

Campsite Reservations
Many primitive campsites are first-come-first-served (meaning you cannot make a reservation). Plan ahead to increase your chances of scoring a site. In some places, you are required to camp at a designated campsite and in others, you may camp at a place of your choosing.

For first-come-first-served campsites:

- Arrive early (you'll be much more likely to get a site at noon than at 5 PM).
- Avoid the most popular camping times, such as holiday weekends.
- Go mid-week. You'll have a much better chance on a Wednesday than on a Saturday. If you need to go on a weekend, get there on Friday instead of Saturday.
- Have a backup plan. Is there a nearby site you can go to if the first one is full?
- Call ahead. On the day of your trip, you may be able to call the park to see how many campers have claimed sites.

Waste and Water
Find out if there is a water source near your campsite that you could purify or if you'll need to carry in your water.

Research rules for human waste in the area. Are vault toilets available? Does human waste need to be packed out? Do you need to bring a trowel to dig a cat hole? Rules vary greatly by location.

Fires
Fires may not be allowed in certain weather conditions or ever in some areas (like many National Parks). Do not plan on relying solely on a fire for cooking and make sure you check the day of your trip for fire bans.

Budget
How much will the trip cost? Include costs like gear rental, camping/permit fees, food, gas, and parking. Determine how you will pay for the trip.

Safety
Have a backup plan if your trip does not go as planned. Will you have a satellite phone? Do you know where the closest ranger station is? Is someone aware of your trip itinerary? If you intend to challenge yourself by fishing for a meal or starting a fire without matches, make sure to bring backup food and matches, just in case.

Minimalist Maker

Badge Connection: Step 2 – Gather your gear and 4 – Learn a survival camp skill
Materials Needed: Duct tape; scissors

Many backpackers travel with duct tape as a staple emergency item because of its many uses. To save space, you can pack duct tape by removing it from the roll and wrapping it around a water bottle, pencil, or trekking poles.

1. Decide which duct tape gear you'd like to make from the list below, or find instructions for other duct tape survival gear online.
2. Follow the instructions below.

Duct Tape Bowl

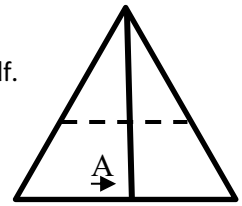
1. Cut 8 strips of duct tape, each 12 inches long.
2. Make a cross with two strips of the tape, sticky side up.

3. Repeat step 2, three more times, making a total of four crosses.
4. Set two of the crosses together, sticky side up, to create an asterisk shape.
5. Repeat with the other two crosses, so you have two asterisks.
6. Lay one asterisk on top of the other, slightly off center, so that the sticky sides are together and there are slightly exposed sticky edges.
7. Stick the adjacent sides together, folding up the strips as you go clockwise around the asterisk. The center of the asterisk will become the bottom of your bowl and the strips will become the "walls"
8. Add additional tape as necessary to cover any holes and trim uneven edges

Adapted from: https://www.wikihow.com/Make-a-Duct-Tape-Bowl

Duct Tape Arm Sling

1. Cut a piece of tape the length of your forearm—we'll call that piece "A."
2. Cut three more pieces of tape and create a triangle around piece A (shown as solid lines in illustration).
3. Add another piece of tape perpendicular to piece A, reaching across the center of the triangle (shown as dotted line).
4. Flip the triangle over and tape over the outline, so the sticky sides are covered.
5. Align the forearm with piece A, with the elbow at the corner and fold the sling in half.
6. Using more tape, connect the two corners around the back of the neck.
7. Make sure the fingers are slightly higher than the elbow.



Adapted from: https://www.instructables.com/id/Duct-Tape-in-your-First-Aid-Kit/

Duct Tape Rope

1. Cut a strip of tape, 10 inches long.
2. Cut this strip in half lengthwise, so you have two thin pieces.
3. Fold the thin pieces in half longways, so they become even thinner and are no longer sticky.
4. Repeat steps 1-3, but as you fold the tape in half, fold the end over an existing piece, so that the rope becomes even longer. Repeat until you have two, long, thin strips of your desired length.
5. Use a small piece of tape to attach the two strips at the top.
6. Twist the strips together tightly until you reach the end of the rope.
7. Tape the bottom ends together.
8. For an even stronger rope, repeat steps 1 – 7 and then twist the two ropes together.

Adapted from: https://www.instructables.com/id/Duct-Tape-Cordage/

Staying Warm Science

Badge Connection: Step 2 – Gather your gear and 4 – Learn a survival camp skill
Materials Needed: "The Science Behind Staying Warm" activity sheet; various materials

1. Read the "Science Behind Staying Warm" activity sheet (at the end of the activity plan) and do your best to fill out the "How to stay warm" column based on the information in the other two columns and your existing knowledge.
2. Check your answers with the answer guide. Note: There are more correct answers than are listed.
3. Create a science experiment surrounding one of the types of heat transfer. Will you test three different sleeping pads to see which one prevents conduction with the ground the best? Find the most fuel-efficient way to prevent convection when using a camp stove in windy weather? Or find out what fabric water evaporates from the most quickly?
4. Use your results to inform your trip plan.

Adventure Cooking

Badge Connection: Step 3 – Plan and prepare your trip meals and 4 – Learn a survival camping skill
Materials Needed: Camp stove; fuel; fire-making materials; various cooking supplies; computer with internet access
Prep Needed:

- Using the Internet, books, and/or expert advice, plan three camp dishes that can be cooked entirely outdoors. For this activity, you'll be cooking one dish using a campfire, one dish using a camp stove, and one dish using a tin foil, solar, or camp stove camp oven. You can make three separate meals or make three parts of the same meal. Make sure you know how to safely use all three cooking methods before you begin. Some ideas are listed below.

1. Campfire cooking
    - Foil packet cooking
    - Stick cooking
    - Fire grate cooking
2. Camp stove cooking
    - Dehydrated food (just need to add boiling water)
    - One pot meals
    - Any dish you could make at home on a stove
3. Tin foil, solar, or camp stove oven
    - Use to heat up pre-cooked meals
    - Baked goods like cake and brownies
    - Slow-cooked soup

Resources:

- How to make a charcoal camp oven: https://www.ehow.com/how_4441173_make-camp-oven.html
- Recipes for solar ovens: https://learn.eartheasy.com/articles/6-beginner-recipes-for-solar-ovens/

Take your trip!

Badge Connection: Step 5 – Go camping!
Materials Needed: Camping gear suitable for your trip; trip itinerary

1. Take your camping trip!

Wrapping Up

Materials Needed: Journal; writing utensil

2. Toward the end of your trip, or when you return, reflect on your experience in a journal entry, include what you did but also how you felt and responded to the trip. What went well? What did you learn? What would you do differently next time?

More to Explore

- Field Trip Ideas:
    - Visit an outdoor outfitter to test and try various supplies before your trip.
    - Camp at a local or state park that's new-to-you.

- Speaker Ideas:
    - Invite an outdoor expert to your troop meeting to teach you some survival camping skills.
    - Invite an experienced camper to your troop meeting to talk about how they camp with limited supplies.

The Science Behind Staying Warm

How do sleeping bags keep you warm? Why do you feel colder when it is windy? Read below to learn about the science behind staying warm!

Type of heat transfer	Definition	Examples	How to stay warm
Radiation	Radiation is generated by thermal motion of charged particles in matter. Radiation is how heat can be transferred without direct contact.	You can feel the heat of a campfire, even though you aren't touching the flames. You can get a sunburn even though you aren't near the sun.	
Conduction	Conduction is how heat transfers through direct contact with objects that are touching. The hotter object always passes heat to the cooler object.	If you hold a snowball with your bare hand, your hand will get cold and the snow may melt as the heat transfers away from your hand into the snowball.	
Evaporation	The process of a liquid changing to a gaseous state. As faster moving molecules escape the liquid (and become gas) the remaining molecules have lower kinetic energy, causing the temperature of the liquid to decrease.	Your body sweats to cool you down. As the sweat evaporates from your body, the temperature of your body decreases.	
Convection	Convection is how heat passes through liquids and gasses. Liquids and gasses rise as they are heated, creating a current as the warmer molecules rise and colder molecules sink.	A hot air balloon rises because the balloon is filled with hotter, less dense air than the air surrounding the balloon.	

The Science Behind Staying Warm (Answer Guide)

Note: There are many additional correct answers that could be listed in the "How to stay warm" category

Type of heat transfer	Definition	Examples	How to stay warm
Radiation	Radiation is generated by thermal motion of charged particles in matter. Radiation is how heat can be transferred without direct contact.	You can feel the heat of a campfire, even though you aren't touching the flames. You can get a sunburn even though you aren't near the sun.	Trap the heat your body produces through radiation! Your body heat will warm the cooler air that surrounds it. Keep the warm air close to you by wearing many layers of clothing. Warm air stays trapped between layers and in puffy materials like down. Use radiation to your advantage by sharing a tent with multiple girl scouts to trap your collectively radiated body heat. You can also do jumping jacks before getting in your sleeping bag to create more warmth to trap.
Conduction	Conduction is how heat transfers through direct contact with objects that are touching. The hotter object always passes heat to the cooler object.	If you hold a snowball with your bare hand, your hand will get cold and the snow may melt as the heat transfers away from your hand into the snowball.	Insulate your body from cold objects. Sleeping on a sleeping pad helps to reduce conduction heat transfer with the ground. Two sleeping pads are ideal for winter camping. Sit on a sleeping pad or camp chair when sitting around the fire. Use conduction to your advantage by drinking warm liquids or eating warm food to warm up.
Evaporation	The process of a liquid changing to a gaseous state. As faster moving molecules escape the liquid (and become gas) the remaining molecules have lower kinetic energy, causing the temperature of the liquid to decrease.	Your body sweats to cool you down. As the sweat evaporates from your body, the temperature of your body decreases.	Stay dry! If you get wet or sweaty, change immediately. Avoid materials that hold water, like cotton. Protect gear, especially down sleeping bags, from water. Use evaporation to your advantage by drying damp gloves or socks in your sleeping bag with you at night. Your body heat will cause some of the water to evaporate from the wet items much more quickly than outside in cool weather.
Convection	Convection is how heat passes through liquids and gasses. Liquids and gasses rise as they are heated, creating a current as the warmer molecules rise and colder molecules sink.	A hot air balloon rises because the balloon is filled with hotter, less dense air than the air surrounding the balloon.	As air moves past you, it steals your heat. Prevent this heat loss by blocking wind from your shelter by using tarps or other natural barriers, like snow walls and by wearing wind-resistant clothing. Use convection to your advantage by using a camping stove to make water boil (and don't forget to use a windscreen!)