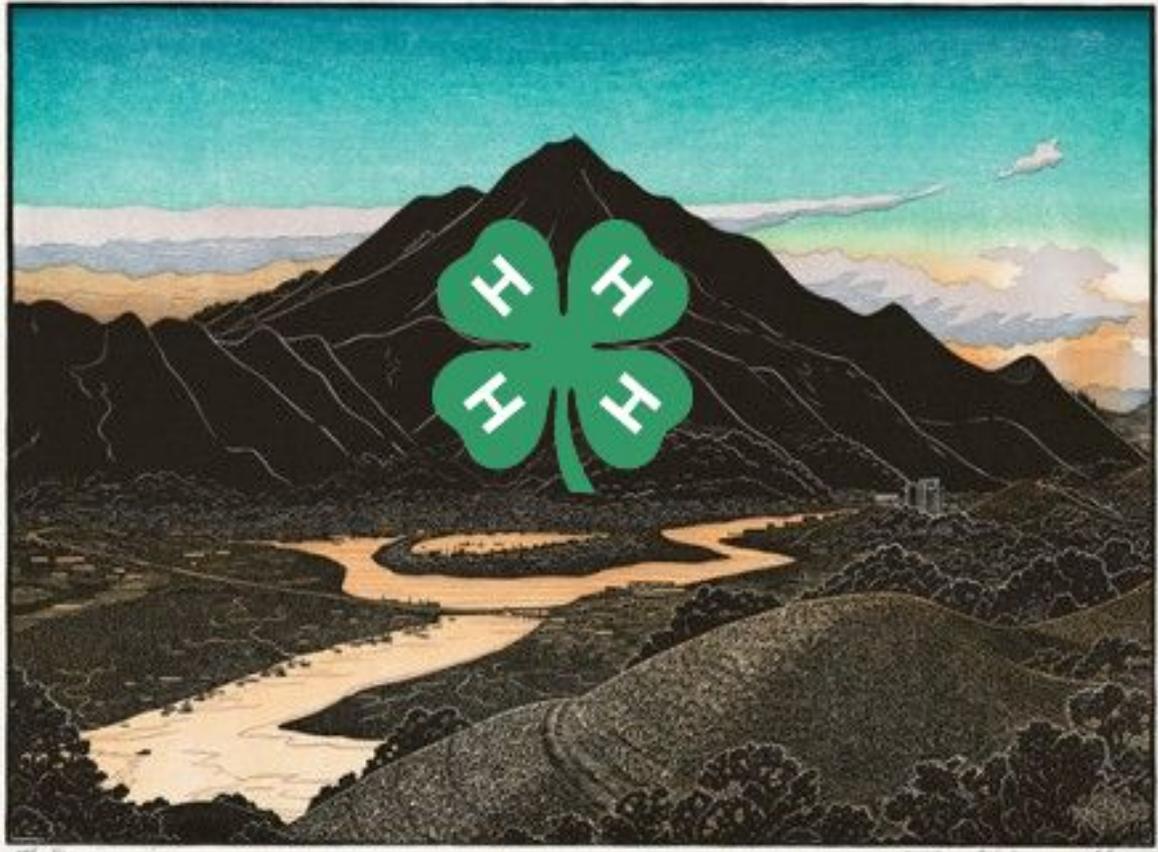


Outdoor Safety Handbook



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2015-17 Marin County 4-H All Stars

Introduction

As members of the Marin County Search and Rescue team we have searched for many people, ranging from day hiking tourists to experienced backpackers, many of whom got lost or injured for easily preventable reasons.

After helping to rescue so many people, we wanted to do something to spread the word about outdoor safety. Doing a 4-H All Star project on outdoor safety was a great way to combine our love of 4-H with our knowledge of outdoor safety. We want to give you this manual so that you can learn how to stay safe and avoid getting lost in the great outdoors. Happy trails!

Before you go

Have a plan

Inform someone of where you're going and when you plan to return

Keep a flashlight with you

Eat well, stay hydrated: carry plenty of water

Stay on the trail

Ask for HELP!

Familiarize yourself with the area, use a map

Expect changes in the weather

Preparation is by far the most important part of staying safe on your outdoor adventure. Remember, an ounce of prevention is worth a pound of cure.

- Tell somebody where you are going and when you plan to be back.
- Get familiar with where you are going
- Bring a map and know how to read it
- Plan for the weather
- Pack the right stuff
- Take a buddy

Have a Plan

Make a plan and tell someone. Your plan should include where you are going, who is going with you, when you plan to be back, and when people should start to worry if you are not back.

When you are making your plan, be sure to check the weather and sunset time. Get familiar with the area. Is it steep, slippery, foggy, or something else?

Be sure to prepare for any conditions you might run into!

What to Pack

- A flashlight or headlamp. **Your phone will not substitute for a flashlight!** A phone battery *will not last* when the phone is being used as a flashlight.
- A map. Be sure it is a map of the right area and know how to read it.
- Food and more water than you think you need
- A buddy. You are less likely to get lost if you hike in a group and you will have someone there to help you in case anything goes wrong. It's also more fun than hiking alone!
- Proper clothes. Being too hot or too cold can take the fun out of your activity, or even be dangerous.

Things to Look Out For

These are some of the things that are most likely to get you into trouble during your outdoor adventure.

Never Leave the Trail!

Leaving the trail is by far the most common mistake that gets people into trouble. If you stay on the trail, your chances of getting truly lost are pretty slim. If you really must leave the trail, mark your way so you can get back to the trail.



If you get lost, follow the  rule

Stay – As soon as you realize that you are lost, stop, stay calm, and stay put. If you keep going you are likely to get even more lost. Sit down, drink some water, and eat something.

Think – How did you get to where you are? What landmarks should you be able to see? Were you heading North, South, East or West? Where were you when you were last sure you knew where you were?

Observe – What can you see? Where on the map is it? Where is the sun in the sky? Roughly how long until sunset? What does the weather look like it is going to do? What supplies do you have? How long will they last?

Plan – Never move until you have a plan. Based on your thinking and observations, come up with some possible plans and then act on the best one.

- Check for phone coverage. If you have reception, call for help.
- Use a whistle to try and attract attention. Three blasts is the universal signal for help.
- If you have any bright items get them out as it will make it easier for a rescuer to find you.

Staying the Night

- Find a sheltered spot that will keep you from the rain and wind before it gets too dark.
- You will likely need to put on extra layers to avoid hypothermia.
- Do not sleep beside a river as the noise might mean you cannot hear a rescuer.
- Create a HELP or SOS sign with rocks in a clearing. This will make you more visible from the air.
- Hang colorful items from tree branches around you. This will make it easier for rescuers to find you.

Getting Along With the Elements

Cold Weather

Before you step out into cold air, remember the advice that follows with the simple acronym COLD — Cover, Overexertion, Layers, Dry:

- **Cover.** Wear a hat or other protective covering to prevent body heat from escaping from your head, face and neck. Cover your hands with mittens or gloves.
- **Overexertion.** Avoid activities that would cause you to sweat a lot. The combination of wet clothing and cold weather can cause you to lose body heat more quickly.
- **Layers.** Wear loose fitting, layered, lightweight clothing. Outer clothing made of tightly woven, water-repellent material is best for wind protection. Wool, silk or polypropylene inner layers hold body heat better than cotton does.
- **Dry.** Stay as dry as possible. Get out of wet clothing as soon as possible. Be especially careful to keep your hands and feet dry

If you follow the principles of COLD you shouldn't have any problems with hypothermia, but in case you do here's what to keep an eye out for:

Symptoms of mild hypothermia include:

- Dizziness
- Shivering
- Hunger and nausea
- Increased breathing
- Difficulty speaking
- Lack of coordination
- Tiredness
- Fast heart rate

Symptoms of moderate to severe hypothermia include:

- Shivering, but importantly as hypothermia worsens, shivering stops
- Slurred speech
- Significant confusion
- Drowsiness
- Apathy or lack of concern
- Weak pulse

Heat



High temperatures can be just as dangerous as the cold. There are three main illnesses caused by heat: heat cramps, heat exhaustion, and heat stroke.

Heat cramps are the mildest form of heat illness. They are a sign to stop your activity and cool down. Symptoms of heat cramps are cramping in the abdomen, arms, and calves.

If heat cramps are left untreated, they may progress to heat exhaustion. Heat exhaustion is more serious than heat cramps, but is not fatal. Symptoms of heat exhaustion include heavy sweating, nausea, pale or flushed skin, dizziness and headache.

Heat stroke is the most serious of the heat-related illnesses. Heat stroke occurs when the body suffers from long, intense exposure to heat and is unable to cool itself. In prolonged, extreme heat, the part of the brain that normally regulates body temperature malfunctions. You will stop sweating, and you may become confused and tired, or even angry and combative. Heat stroke is a true medical emergency and must be treated immediately.

Treatment

The only treatment for heat illnesses is cooling off and hydrating. Shade, ice packs, and cold drinks will help.

Prevention

- Stay out of the sun. If possible, exercise or work outside during the cooler times of the day. Wear lightweight, light-colored, loose-fitting clothing in hot weather, so your skin can cool through evaporation. Wear a wide-brimmed hat or use an umbrella for shade.
- Stay cool. Take frequent breaks in the shade. Cool your skin by spraying water over your body.
- If you have to stand for any length of time in a hot environment, flex your leg muscles often. This prevents blood from pooling in your legs, which can lead to fainting.

Heat Exhaustion

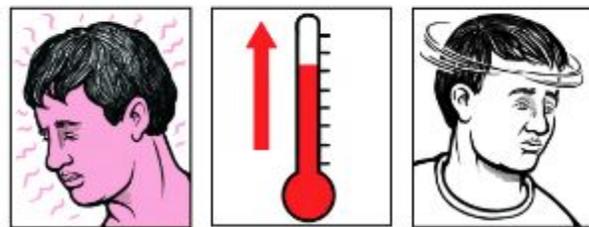


Dizziness Headache Sweaty Skin Weakness



Cramps Nausea, vomiting Fast heart beat

Heat Stroke



Red, hot, dry skin High temperature Confusion



Convulsions Fainting

Poison oak

While not immediately dangerous, poison oak should be avoided. It will cause a very itchy red rash. Some people develop a severe allergic reaction to poison oak that requires medical attention. If you think you touched poison oak, wash your skin as soon as possible with dish soap or Tecnu.

This is Pacific Poison Oak, which is found along the West coast



Summer

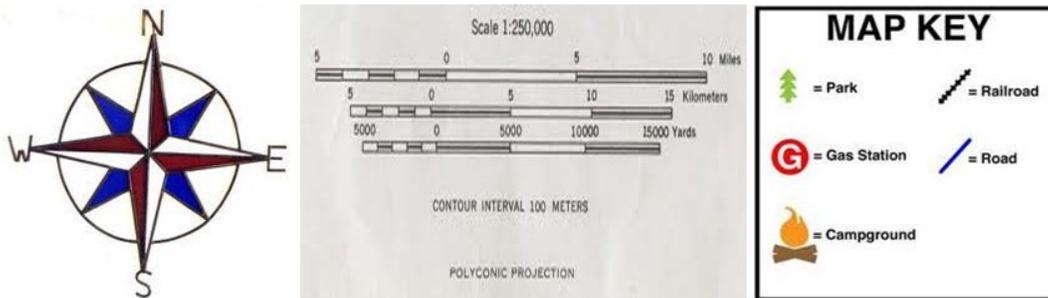


Fall

“Leaves of Three? Leave Them Be!”

Important Parts of a Map

- **Compass Rose**- shows direction on a map.
- **Scale**- shows what a distance on a map is actually equal to on Earth.
- **Key**- tells us what different symbols, colors and lines on a map mean.



Reading a Map

1. Check the map's orientation. Most maps are drawn with north at the top.
2. Understand the scale of the map. The map scale shows you a ratio of map distance to real distance
3. Note the latitude and longitude.
4. Read the contour lines. How steep or flat the land is is represented on the map with contour lines. Each line represents a standard height above sea level.
 - When contour lines are close together, this means that the slope is steep
 - When the contour lines are further apart, the gradient is flatter, so the further apart they are located, the flatter the ground on the map
5. Examine the legend. These are the little symbols on the map that mark things like restrooms, parking lots, and picnic areas