

# Wilderness Survival

## Wilderness Survival

Environmental Education Lesson  
Camp Edwards YMCA

### **Summary:**

Through role-playing a survival situation students will build shelters, build fires and choose which survival supplies they would utilize to help them survive in the wilderness. We will learn what items we should have with them when traveling and investigate how animals adapt to their environment to survive and see what we can learn from them.

### **Usage:**

Grade levels 3<sup>rd</sup> – 8<sup>th</sup>

### **Objectives:**

Upon completion of this lesson students will be able to...

- Explain three ways animals adapt to their environment (migrate, hibernate, acclimate)
- Be able to build a shelter using sticks and logs available in the forest
- Identify the four basic elements animals and people need to survival (food, water, shelter, and air.)
- List three components of a fire

### **Materials:**

- Survival equipment list
- Logs and sticks in the pine forest
- Dry eraser markers and one eraser
- Survival Challenge sheets
- Flint and Steel

### **Introduction:**

Wilderness survival is meant to give students a thorough understanding of what to do in the event that they should become lost. This is an opportunity for them to be creative when using items from “the list” to help them survive (first activity.) Learning how to build a proper fire could help increase chances of survival. This lesson fosters teamwork skills, as students will work in groups trying to obtain their objectives.

### **Warm Up Activity:**

Begin by discussing the three ways in which animals adapt to their environment (hibernate, migrate, acclimate), discuss examples of each. Bears adapt by naturally storing more fat in their bodies. During hibernation, a bears heart-rate will drop as well as their metabolism (rate at which they use food for energy.) Many birds fly south to warmer temperatures (migration), and many other animals store food in their newly created burrows (a form of acclimation.) How do we as humans adapt to our environment (acclimate?) What are examples of how humans become acclimated to their environment (clothing, shelters, storing food, water?)

You could also start by asking the group if any of them have been lost. Most will tell you that they were, have volunteers share some of the stories with the class. Questions such as “how did that make you feel?” or “how did you solve your problem?” should be asked. Explain to them that a survival situation can happen anywhere at any time, no matter how close to civilization or help you are. This activity will help the students to open up and really focus on the goal at hand.

### **Activities:**

#### **If I were lost in the woods...**

Begin this activity by telling students about the four basic things that animals need for survival (food, shelter, water, and air). Next, explain that we as humans (and all animals) need all of these things to survive, and ask them which ones are most important (answers may vary).

Now explain to the students that they are going to pretend that they're lost in the woods in East Troy. During the trip their map they were using was misplaced. There is plenty of air to breathe, however, they are hungry, thirsty, and it is quite chilly and temperatures will drop as night falls. Ask the students which elements are most important to them in this situation. Would they find water first, would they look for food, or would they try to find shelter? In any situation positive mental attitude (pma) is the most important idea to have. If you think you will fail then you will. If you have confidence in yourself, your chances of survival are greatly increased. After discovering pma, finding shelter would be most important objective because it is going to get colder. A shelter will provide protection from wind, precipitation, and help hold in heat. Being exposed to the cold is very dangerous.

Here's why: Hypothermia occurs when your body loses more heat than it generates. A loss of core temperature is dangerous to peoples' health; losing extremities, which is called frostbite, is not. Although losing limbs and fingers would be bad it does not mean death. Signs for hypothermia are easy to recognize. Early detection will help increase the chances of survival (see background for more information.) Since we do not have a shelter available, overexposure to the cold could result in death.

The second most important thing to do is find water. Water can be found in many places but most of it is not readily drinkable. There are several ways to treat water for drinking; boil for at least 10 minutes, use chemicals, or put it through a filter. Humans can generally survive three days without water.

Finding food should be the last objective. Most of us enjoy three meals a day, which is more than most of us need. We can go roughly three weeks without food (if water is available to drink) Initially many people will get hungry and feel that they will not be able to make it. If they can get past the uncomfortable feeling they will realize that food is not the first necessity, but the last.

#### **Essential Survival Kit:**

When traveling by car, foot, or plane there are some items that should always be available. These ten items can all fit in a coffee can, hence, they will not be a burden to have in the trunk, suitcase, or backpack. Inside of this backpack are all ten of those essential items. Have the

students name some of the items? (map and compass, waterproof matches, whistle, water bottle, garbage bag, high energy food, multi-tool, extra warm clothes, rain gear, and 1<sup>st</sup> aid kit)

After the students had a chance to come up with the items pull them out of the backpack and discuss their uses. Let this lead into the survival wish list activity.

### **Survival Wish List**

First divide the students into groups (3-5 per group). Explain that they have been involved in a plane crash and are now stranded. The plane crashed in a remote wilderness area with a creek that runs into a lake that appears to be far removed from civilization. Everyone survived, however, the radio doesn't work and the plane is completely useless. Soon it will be dark so the groups must now make preparations to stay overnight. Explain that there is a box of supplies found in the wreckage. Hand out the sheets entitled "survival supplies". They will then decide how to use 10 of the 15 items on the list. Have the groups use their notebooks to write down their items and how they plan on using them. If notebooks and pens are not available, please have the students write on the laminated sheets with the dry eraser markers provided.

The instructor may assign more or less than 10 items on the list and pretend that the remaining items have been lost in the crash. Remember that they may have to spend many days in the wilderness, and should prepare accordingly. Groups should utilize their items in terms of survival and signaling (smoke from fire perhaps.)

Students should then prioritize their items and number them 1-10 in terms of importance. After the groups are done, ask each group to tell the rest of the group their strategy for survival. Which items had the most priority? Which ones had the least? Why?

**(Option)** The instructor may want to assign specific weather conditions for each group individually, or one weather condition for all groups (specific weather conditions require specific strategies.) If not, we will assume the weather is relative to current conditions.

Here are some suggestions for the items and their uses:

- 20ft rope- tie between two trees and use the tarp like a tent by laying it over the rope
- 10x10ft tarp- use as a shelter, or as a means to collect water
- matches- starting fire, fire used for warmth and signaling
- hand saw- good for cutting branches, branches can be used for shelter and fire wood
- mirror- signaling device
- gallon of water- good for drinking, empty container used for collecting rain run-off
- one day supply of food- good for rationing, used as bait
- pocket knife- skinning fish and animals
- compass- good for knowing direction (shelter opening should face south, since sun from south is the warmest)
- kite string- for reinforcing branches of shelter, used as fishing line and animal snares
- fishing hooks- used with kite string and strong branch for fishing pole
- flashlight- used for seeing at night as well as signaling
- candle- used for transporting fire without wasting matches, light at night, signaling
- blanket- used for staying warm
- shovel- used for digging up roots (food) , insects and worms (bait or food)

## **Flint and Steel**

Fire is an important tool when lost in the woods. Discuss how it is important: signaling for help, keeping warm, cooking

Talk about various ways to make a fire. If matches are not available, what can you use? Rubbing sticks, hitting rocks together, flint and steel. Flint and steel is the best option and a great thing to keep in a backpack. We are not going to build a fire, but demonstrate how flint and steel creates the spark to get a fire going. Matches were invented around 1861, about the time when Abraham Lincoln was president. Flint and steel was one way of starting a fire before that time. A tempered piece of steel can be struck against a piece of hard rock such as flint. This caused a spark as the sharp rock shaved off a sliver of the metal that could be caught and used to start a fire. When students are doing this the flint and steel should be held near the waist and safety goggles must be worn.

## **Home Sweet Home**

Take the students to the forest and divide them into groups of 3-6. Next, explain that they are going to make a small one or two person shelter using sticks and logs. **Important** – (*Only use items that have naturally fallen off the trees. They may not break off branches from any of the trees under any circumstances.*)

The easiest type of shelter to make is the lean-to (see illustration). The lean-to is made by placing a sturdy log on branches between two trees. Several other long sticks will lean against this one to create a shelter much like a tent half. Logs and sticks could be placed on both sides to complete the shelter if time permits. Upon completion of the lesson, please have students return their materials to the areas where they found them. (If students are disappointed, explain to them that this represents a bad storm or tornado). Many animals lose their homes when a storm passes through.

Discuss shelters after students are done. Have each group give a “tour” of their shelter and give ideas what they could have done different to make it better with more equipment and time.

## **Rainy Day Activities:**

### **The Survival Challenge**

If there is extra time or if the weather does not cooperate the Survival Challenge exercise provides questions that can spark discussion and bring out additional survival topics. Have the students divide into groups of 3-5. Tell the students that they will be asked a series of questions that will challenge their knowledge of wilderness survival. Read the questions and have them decide in groups which answers are correct. The instructor may want to pose the question with multiple choice answers. When everyone is done, discuss correct answers.

## **Wrap-Up:**

Discuss the three ways animals adapt to their environment and have students give examples of each. **Hibernation**: When an animal such as a bear goes into a deep sleep over the course of the winter. During this time, the rate of his heart, as well as the rate at which the animal uses fat for energy declines considerably. **Migration**: When an animal travels from one region or climate to

another (i.e. birds) Acclimation: When an animal adapts to new temperatures, altitudes, climate, or environment (some animals grow a thick coat of fur in preparation for winter).

Discuss the three main types of wood for fire building and conditions we should consider before building a fire.

Lastly, discuss the most effective ways that humans adapt to their environment. (They build homes, wear clothes, and store food and water). What are the most important ways humans could survive if they were lost in the wilderness? (Build a shelter, stay warm, find water and food). Is there anything that we can learn from animals about surviving in nature?

## **SURVIVAL WISH LIST**

\_\_\_ 20 ft rope:

\_\_\_ 10x10 tarp:

\_\_\_ matches:

\_\_\_ handsaw:

\_\_\_ mirror:

\_\_\_ gallon of water:

\_\_\_ one day supply of food:

\_\_\_ pocket knife:

\_\_\_ compass:

\_\_\_ kite string:

\_\_\_ fishing hooks:

\_\_\_ flashlight:

\_\_\_ candle:

\_\_\_ blanket:

\_\_\_ shovel: