

Outdoor Survival Hike

CIK 2017

OVERVIEW:

You're on a beautiful hike and the unexpected happens. Are you prepared? The focus of this class is on wilderness survival, but the skills are universal and can be tied to surviving a natural disaster such as an earthquake. Class begins with discussion of what it feels like to be lost, what people should do when they realize they are lost and transitions into what we need to survive - including physical needs and equipment.

OBJECTIVES:

Students will be able to:

-) Give ways to prepare for a hike and avoid survival situations.
-) Give examples of responsible choices related to planning and performing a hike in the forest.
-) Identify a survival situation that could happen while hiking in the wilderness, at home, or both.
-) Develop and demonstrate methods for sustaining basic human needs.

VOCABULARY:

Dehydration

Hyperthermia

Hypothermia

Rule of 3s

STOP

Survival Situation

Water Filtration

Water Purification

NEXT GENERATION SCIENCE STANDARDS:

-) Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. (3-5-ETS1-1)
-) Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. (3-5-ETS1-2)
-) Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. (MS-ETS1-1)
-) Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. (MS-ETS1-2)

MATERIALS:

ten essentials cards (three sets)

ten essentials: first aid kit, food, water, extra layers, map/compass, sun protection, matches, flashlight, knife, whistle

white board/marker

PROCEDURES:

1. Introductory Activity: I Was Lost Flashback (found in activity glossary)
 - A. Debrief: When you find yourself nervous or unfamiliar with a situation, what can you do? What did you do in your flashback?
 - B. Relate being lost in the forest to being lost near home, at a store, at a theme park or where ever you or your students remember being lost. How is it similar? How is it different?
2. Preparation Discussion
 - A. Relate situation to the first four things to do in a **survival situation**. Use whiteboard to introduce the acronym **STOP**.
 - i. **SIT**: rest, calm down, burn fewer calories (energy)
 - ii. **THINK**: figure out priorities
 - iii. **OBSERVE**: notice resources and dangers
 - iv. **PLAN**: design a course of action
 - B. Explain to students that prior to going on a hike, they should plan, Plan, PLAN! Inform them of the basics of planning your hike/hiking your plan:
 - i. **PLAN YOUR HIKE**. Plan the route: look at a map and note the terrain, access to water, etc. Know what to expect, check the weather and act accordingly. Leave travel information with

someone not going on journey; route and time you plan to be back. (Reference map in dining hall and importance of returning for switchover).

- ii. HIKE YOUR PLAN: being spontaneous sounds fun, but hiking for a few extra hours or changing your route makes it much more difficult for people to find you in an emergency or know that you are safe on your adventure.

3. Survival Discussion

A. Review FWARPS, things a species needs as a whole to survive many generations. How would you prioritize the FWARPS you need?

B. Introduce **Rule of 3s**.

3 weeks without food

-Identify local source sources in San Bernardino National Forest (pine bark, buckwheat)

3 days without water

-Explain **dehydration**. Plan on each person needing one gallon of water per day.

-Identify local water sources (natural springs, Jenks Lake, Frog Creek)

-Differentiate between **water filtration** and **water purification**. Give examples of both.

3 hours without protection

-Explain **hypothermia/hyperthermia**

-Talk about reading clouds and predicting weather

3 minutes without air

-Time students to hold their breath as long as comfortable to demonstrate how fast and often we normally use air in our bodies.

3 seconds without your brain

-Remind students that the most important piece of survival equipment is using their brains.

-Three seconds without thinking can have a lifetime of consequences. Be smart. Calm down. Think.

C. Activity: Ten Essentials (found in activity glossary/activity video)

i. Debrief: What differences do the groups have in their supply lists? Why did some groups make some of the choices they made? Let students briefly defend their choices. Is it bad to carry convenience items on a hike too? What are some modern conveniences that might make a hike even easier?

ii. Discuss essentials commonly brought on a hike, and present the ten essentials you have. What if someone in your group was too injured to move and you needed shelter for the night. How long could they go without protection before being in serious trouble?

4. Experiment: Build a Shelter

A. Debrief: Why is it important to make a shelter? Is it easy to build a solid shelter? What were some challenges? If students say "not enough time", talk about realistic nature of time limit. Is it easier to prepare for a hike and follow your plan or take time building a shelter because you find yourself in a survival scenario?

B. Revisit Leave No Trace; explain importance of deconstructing shelters safely. Give specific directions for students to take down shelters. Watch carefully so everyone is safe.

5. Wrap Up

A. [*What?*] Concisely review the major points of the lesson, all the way back from the introductory activity.

B. [*So what?*] What was important for you to discover from the lesson? Why was it important for all of us to take this class?

C. [*Now what?*] What can you now do with this information? What changes can you make in your life? What can you teach to others? Who will you tell? What will you say?

D. Pass out beads after all students have contributed.

THINGS TO THINK ABOUT:

Special Needs: Emphasize safety in building shelters with clear expectations

Time Fillers: If you have time, try Survival Situations (Activity Glossary).

Weather: OSH can be fun in the snow. Students can use snow to build shelters.