

Building Environmental Youth Leadership

A High-School Service-learning Curriculum



TOPIC:

Team-building,
Mission-building

OBJECTIVES:

- Students will get acquainted with their co-participants.
- Students will learn and practice basic compass functions and orienteering procedures.
- Students will work together to solve a small challenge.

LENGTH:

30 minutes to 3 hours

ENVIRONMENT:

Indoors or Outdoors.
Need a large wooded or grassy area where destination markers can be camouflaged.

MATERIALS:

- A copy of *Be Expert with Map & Compass: The Complete Orienteering Handbook*.
- A Chalkboard or Dry-erase board.
- A set of orienteering compasses (1 per student).
- A safety whistle for each group.
- A clipboard, paper and pencil for each group.
- A measuring tape or other means of marking off a 100' line.
- 1 Painted coffee can for each station marker (10 total).
- A laminated motivational quote to place in each coffee can.

Orienteering

Background:

According to Karl Rohnke, the word compass comes from the Latin *cum passus* meaning “with step”. Following this tradition, participants in this activity must find a common direction in order to follow an invisible path. First, the group learns and explores basic compass operation. Individuals discern their pace lengths. Then, participants work in small teams to navigate from marker to marker through a compass course. These activities provide vivid metaphors for students attempting to develop a mission, and navigate the hidden topographies of a service-learning project.

Activity Outline:

Finding your Bearings:

Neither basic compass operation nor basic orienteering principles are too difficult to grasp and teach, however, they are acquired skills requiring familiarity and practice. To that end, it is suggested that leaders endeavoring to tackle the following activities with students prepare well-beforehand by reading *Be Expert with Map & Compass* by Björn Hjelström. This book, available in many libraries and bookstores, provides an excellent background on the origin and operation of compasses as well as numerous exercises that develop basic orienteering skills.

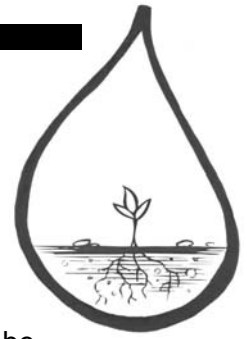
Beforehand:

This activity takes place in two parts—basic skills development and challenge course navigation—which may take place together or on separate occasions. Whichever route is chosen, each requires some preparation. A chalk or dry-erase board is useful for facilitation of basic compass operation. Draw a large illustration of a compass on the board with all parts labeled. It is also helpful if the needle, orienting arrows, etc. can be erased and redrawn to illustrate various directions. To facilitate pacing, measure and mark both ends of a 100' line in a hallway or open field.

Setting up the challenge course will take a few hours depending on the complexity and number of stations included. Gather a coffee can to mark each station. Paint these bright yellow or green so they will stand out somewhat among trees and foliage. They should not be visible from more than 5-10' away. Label the lid of each can with a letter: A, B, C.... Laminate and place a motivational quote in each can. Create a table that lists each station letter with the corresponding quote. Later, this will provide a means of assessing whether students visited the correct stations.

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Choose a wooded or tall-grass location for the course that will not be disturbed prior to the activity. Mark a starting point with can A. Then roughly follow directions for Hjellström's *Schoolyard Compass Game*. The exception is that the distance between cans (usually 50 to 300 paces) should be recorded in addition to bearings. A GPS will be useful in double checking your bearings and distances. Make a map of locations as you go. Take your time, double check your work, and have others check it as well - if you don't set the course up accurately, the participants won't have a prayer!

Students should be informed to dress for the weather on the day of the challenge course activity.

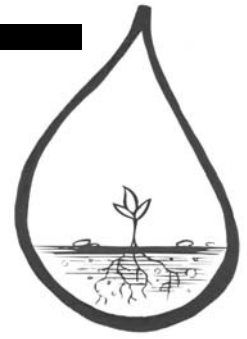
Finding Direction—Basic Skills Development:

Students gather for introductions and instructions. Begin with a discussion of their background experience with orienteering. Have any ever been lost in the woods? A store? How did they find their way? Can anyone describe how he or she has used a compass and map to get from one point to another? Provide a brief background on the origin, history and operation of the compass. Hand a compass to each student. Instruct them to keep the lariat around their necks. Then, explore the various parts of the device. Have everyone practice holding the compass correctly at their chest-level. As a group, face true north, south, west, southeast, etc. Illustrate the process of taking a compass bearing, putting "red in the shed". Show how to reverse direction. Provide various bearings and practice finding a group direction. When all participants can successfully take a compass bearing, gather compasses and move onto pacing.

Students gather along the 100' line. Explain that students have learned one key concept of orienteering—finding a direction. However, they also need to be able to measure distance from point A to B. This is accomplished through pacing. Illustrate an appropriate pace, which is one regular full stride from left-foot to left-foot or right-foot to right-foot. (Students will often miscalculate a half-stride—left-foot to right-foot—as one pace.) Then, practice counting paces as a group. It is often helpful to slap the thigh of the pace-foot (the one that lands on each full stride) and count out loud for each pace. When all group members feel comfortable pacing, ask them to line-up at the beginning of the 100' line. Explain that individuals may have different pace lengths, but the fixed line distance provides means of measurement. Each student walks the line from beginning to end, keeping count of his or her paces. 100 divided by the final pace tally provides the pace length. For instance, a person counting 25 paces from beginning to end has a pace length of 4' (100'/25 paces). Once all group members have discerned their pace lengths, ask them to identify the number of steps required to cover various distances. How many steps to cover 50'? 250'? How about 100 yards?

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Hidden Markers—Advanced Orienteering:

Students gather at can A for instructions. Review compass use and pacing learned in the previous activities. Then, introduce students to the *Schoolyard Compass Game* as described in Hjellström's book. Separate students into 10 groups. Hand each a whistle, a clipboard, and paper with starting station and coordinates listed (as in Hjellström's book w/ distances between points added). When given the call to begin, students simply move to their starting point, and follow the given bearing while attempting to estimate the distance. Before beginning, they should check and record on their paper the quote located in their starting can. When they reach each additional marker, they should also record the quote in that can. Use the quote key to measure their progress. Are they finding the correct quotes for their assigned path? If students cannot find a marker, or reach one to which they were not headed, they should backtrack to the last known point and try again. Stress that this is no big deal, just a part of the challenge. However, they will do better if they take careful bearings and pace counts. Finally, groups should only blow the whistle in case of emergency. Show groups to their starting points, and give the signal to begin. Check-in with each group as they progress.

Seeking Deeper Meanings:

Once groups have completed the compass course, students should gather at can A for review and processing. Ask them to read and discuss the meanings of quotes found in the can. Are any particularly meaningful in relation to their service project? Then, identify as a group and explore any lessons learned from the orienteering activity. How do these apply to the service-learning activity? What is the compass for that adventure? How can they pace themselves? Where are the markers? Later in the progression of the project, refer back to this discussion. Ask students if they are following a good bearing, and carefully counting their steps.

References:

- Hjellström, B. (1994). *Be Expert with Map & Compass: The Complete Orienteering Handbook*. New York: Macmillan General Reference.
- Rohnke, K. (1989). *Cowstails and Cobras II: A Guide to Games, Initiatives, Ropes Courses, & Adventure Curriculum*. Dubuque, IA: Kendall/Hunt Publishing Company.
- Wolf Ridge Environmental Learning Center. (1996). *Orienteering*. Unpublished Lesson Plan. Finland, MN: Wolf Ridge Environmental Learning Center.