

Red Orienteering Trail Training Material

1. Familiarize yourself with the legend on the map for various features.

- a. Find the building, Langie Lodge
- b. Identify the dirt road passing by Langie Lodge
- c. Identify the vehicle path leading to the house NW from Langie Lodge
- d. Find Wellington Lake & the stream flowing out of Wellington Lake
- e. Find the "Large Footpath" leading to the Nature Trail & Rifle Range
- f. Find the eight orienteering signs associated with the Red Training Trail
- g. Note the distance scale at the bottom left of the map. Using a ruler or measure, you will be able to measure distance using this scale.
- h. Observe the contour lines
- i. The contour lines represent an elevation change of 3 meters (9.8 feet).
- j. Contour lines close together represent steep slopes (right side of the map). Widely spaced contour lines represent relatively flat terrain (area west of Wellington Lake)
- k. Knolls are shown by a closed contour line

2. Orienteering is done with a combination of determining the proper direction, the distance to the desired target, and identifiable landmark features from the map. Distance is measured by knowing the distance covered by your stride (one step with both legs. Note that marker #1 is on the main road on the north side gate post, and that marker #2 is on the same road near the intersection of the large footpath leading to the Nature Trail and Rifle Range). While you could navigate from marker #1 to #2 with a compass bearing and a distance measurement walking a straight line through the woods between the points with your compass, you should just walk up the road looking for the entrance to the Nature Trail & Rifle Range and marker #2. In this case the distance following the road between marker #1 and marker #2 is measured at 300 meters so that you can determine what your own personal stride is.

- a. Find marker #1 and note the clue letter on the metal tag for the Red trail from the post on your clue card for marker #1.
- b. Starting from a position with your back close to the post of marker #1, count the number of steps you make with your right foot walking on the road between the markers. A step of your left foot and right foot is one stride.
- c. Divide your number of steps of your right foot by 3, and you will then know how many paces you make per hundred meters. (Example: $180 \text{ paces} / 3 = 60 \text{ paces per } 100 \text{ meters}$, or $100 / 60 = 1.7 \text{ meters per stride}$)
- d. Note the clue letter on the metal tag for the Red trail from marker #2 on your clue card.

3. To go from marker #2 to marker #3 will require a compass bearing and distance measurement.

- a. The distance measurement from your stride calculation can be affected by whether you are walking in the open road or path, an open forest, or a dense forest. If your course takes you through hilly terrain or a vegetated area, add 6-8 strides to your pace per 100 meters. If it's rough terrain and overgrown, thick woods, then add 10-12 extra strides to your pace per 100 meters.
- b. Using the map, measure the distance between marker #2 and #3. Comparing your measurement to the scale on the map, the distance is about 160 meters. Since your path is through woods that are reasonably open and level, add 8 strides to your pace per 100 meters and then multiply by 1.6 ($160 / 100$) to determine how many steps of your right foot you will make between the markers. (Example: If your stride is 60 paces per 100 meters, then $(60 + 8) \times 1.6 = 109 \text{ paces}$.)

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4. Next you must determine what direction to go using the compass and map.

- a. Set the compass's center over the circle of marker #2 on the map.
- b. While keeping the compass center over marker #2 rotate the compass until the line(s) on the base align with a line between marker #2 and marker #3 on the map.
- c. Hold the base of the compass firmly to the map while rotating the compass dial until the 0° mark is toward the north on the map and the thin black, parallel lines on the face of the compass dial are parallel or lined-up with the series of thin black lines that run through the map with arrows pointing toward magnetic north. At this point, you can ignore the floating north arrow of the compass.
- d. The compass bearing will be the number of degrees where the indicator arrow/triangle on the base points to on the compass dial. You should get a reading of about 116°. Be careful not to bump or move the compass parts once you get this bearing set on the compass.

5. You are now ready to move from marker #2 to marker #3

- a. First stand with your back close to marker #2
- b. Hold the compass in front of you with the flat end of the base of your compass pointing away from you.
- c. Rotate your body position until the red end of the floating arrow of your compass lines up with the red arrow in the base of the dial (North). You are now pointed in the direction of the marker #3.
- d. Look in the direction indicated by your compass for marker #3.
- e. If you cannot see the marker due to trees or other obstructions, select a tree or other feature that is directly in your path and walk toward that feature counting the number of steps of your right foot.
- f. When you get to the feature that obstructed your view, move to the other side of it, and re-establish your heading as in steps b, c, d, & e. If you still cannot see the marker, find another feature in your path and continue counting paces to the next feature.
- g. Repeat this process until you have arrived at marker #3.
- h. Note the clue letter from the metal tag for the Red trail on your clue card for marker #3.
- i. If you significantly exceed the number of paces it should have taken you to get to marker #3 and have not found it, then you have probably set-up your compass bearing incorrectly at marker #2. Return to marker #2 using the same process except aligning the red end of the floating arrow with the black end of the arrow on the compass dial (South). Re-establish your 116° heading as described in step #4, and then repeat step #5.

6. Repeat this same process as you move from marker #3 to marker #4 and so on, until you have arrived at marker #8 at the far side of the footbridge near Langie Lodge.

- a. Be sure to note the clue letter for the Red trail for each marker on your clue card.
- b. See your leader or one of the Camp Masters in Langie Lodge who can confirm from your clue card that you have found all markers and in the right order.
- c. Congratulations on completing this introduction to Orienteering and your first compass course.
- d. Now that you know how to use a compass, always keep one with you whenever you are out in the woods, on a boat, or in unfamiliar territory. It can help you get to where you want to go and could be very important in an emergency.