Atlantic County Park - Orienteering Guide

The purpose of this exercise is to find eight markers that are located at several locations within the Park, similar to the sign illustrated below. You will accomplish this by using a map and compass.

Our first exercise will help us become familiar with the compass. Look at the image of the compass and notice the names of the various components. We are most interested in the base plate, the direction of travel arrow, the rotating dial with degrees, the magnetic needle, the orienting arrow which is also called the needle's bed, and the orienting lines.

1. Scales / Rulers
2. Direction of Travel
3. Orienting Arrow
4. Declination Scale
5. Dial with Degrees (part of housing)

Take the compass and turn the dial until W or 270 degrees lines up with the direction of travel arrow. Now stand up and holding the compass in front of you and level and with the direction of travel arrow facing away from you, rotate until the magnetic needle is aligned with the needle's bed. You will now be facing west. If at any time you should get confused, set the compass like you have just done and you will be walking toward the west. You will eventually come to Purple Heart Drive or Route 50 and will no longer be lost in the woods.
The entire orienteering process consists of a series of approximations. The map is an approximation, although it is a very accurate one. The route that you follow is not a straight line as is indicated on the map. The distance that you calculate is also an approximation. The point here is that the closer your approximations are to reality, the closer you will be to the marker. The markers can be seen from more than 100 feet away, so if you get this close, you will see the marker. The Park has made the orienteering process easier by including magnetic north lines on the map. Because of this, the map can be used in any position and still give you the information that you require.

There are three steps; in the orienteering process. The first two steps do not require the use of the magnetic needle.

The first step is to locate a starting point and ending point on the map. After this is done, place the edge of the base plate of the compass between these two points. It is important that the body of the compass is located within the map for the next step. It is critical that the direction of travel arrow is pointing toward the end point that you have chosen, or you will not get the correct direction angle that you need.

The second step is to hold the base of the compass so that is does not move. Now, turn the dial so that the orienting lines on the compass line up with the magnetic north lines on the map. It is important that the north part of the orienting lines on the compass are lined up with the magnetic north lines on the map, otherwise you will not get the correct direction angle that you need. At this point, you have determined the angle that you need to walk to reach your destination. The angle on the rotating dial that lines up with the direction of travel arrow is the angle that you need to follow.

The third step requires the magnetic needle. At this point, hold the compass in front of you with the direction of travel arrow pointing forward. The compass must be held level so that the magnetic needle can rotate as required. Rotate your body until the magnetic needle aligns with the orienting arrow. The red part of the needle must be in the red part of the orienting arrow. This is called putting the red to bed. Now you can walk in the direction indicated by the direction of travel arrow. It is difficult to keep the compass level and constantly look at it to make sure that you are proceeding in the correct direction. Another way to do this is to pick a tree or other landmark that is in the distance and close to the direction that you want to walk. When you get to this point, then use the compass to pick up another point. Continue this process until you reach your destination.

These steps are repeated for each section of the orienteering map. There are two sections of the orienteering map where it is not possible to walk in an almost straight line due to swampy territory. The first is from 3 to 4, and the best idea here is to establish another point called 3 1/2. The second is from 6 to 7 and the best idea is to create another point called 6 1/2.
Another way to help determine your path to the destination is distance. We will all go out to the parking lot to determine how many steps it takes to walk 100 feet. Remember that you will be walking in the woods, so do not take long steps in the parking lot. When you know how many steps there are in 100 feet, you determine how many hundreds of feet you need to walk. For example, a distance of 1500 feet would require 15 counts of 100 feet. You can keep track of this number in your mind, or you can pick up the given number of twigs, pine needles or pebbles, and then as each 100 feet is counted out, drop one of them. When you have none left, you should be very close to your end point.

All of the directions and distances have been included in this guide, so that you can verify that your results closely agree. It is suggested that you calculate each point yourself, or you might not learn what you came here for.

**Good Luck!**

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**Bearing angles and distances (Basic Course)**

- From Start to 1 192 degrees 2250 feet.
- From 1 to 2 128 degrees 1500 feet.
- From 2 to 3 48 degrees 1625 feet.
- From 3 to 3.5 165 degrees 1250 feet.
- From 3.5 to 4 83 degrees 1000 feet.
- From 4 to 5 198 degrees 3500 feet.
- From 5 to 6 292 degrees 1125 feet.
- From 6 to 6.5 322 degrees 2500 feet.
- From 6.5 to 7 232 degrees 0625 feet.
- From 7 to 8 18 degrees 1250 feet.
- From 8 to Start 12 degrees 3250 feet.