

ORIENTEERING STUDY GUIDE

(revised 07/05)

I. WHAT IS ORIENTEERING?

Orienteering is the ability to find your way (navigate) using a compass and map. Competitive Orienteering is a cross-country running sport, demanding physical and mental fitness. The sport emphasizes map reading and the ability to make quick decisions under physically challenging conditions.

II. THE COMPASS

The compass is used to take a bearing, give direction, show you where North is, measure distance and transfer direction from a map to the ground.

A. Important facts about the compass:

1. The protractor compass is the most familiar and used by hikers.
2. Never drop or shake (spin) your compass.
3. Each mark on the dial is 2 or 5 degrees.

B. Important parts of the compass:

1. base plate
2. bearing ring or dial (360 degrees)
3. direction of travel arrow (blue or black)
4. orienting arrow (red) permanently points to north
5. orienting lines (red and black)
6. magnetic north arrow or needle (red/white)
7. distance measuring scale (inch/metric) for use with a map

III. DIRECTIONS/DEGREES

A. The **Cardinal** points of directions and degrees

1. north = 0 or 360
2. south = 180
3. east = 90
4. west = 270

B. The **Intercardinal** points of directions and degrees

1. northeast = 45
2. southeast = 135
3. southwest = 225
4. northwest = 315

C. The sixteen most commonly used compass directions:

IV. FINDING YOUR BEARINGS

A. **Definition:** A **bearing** is a direction or angle of travel with respect to north.

There are two ways to find a bearing: **by degrees or by landmark.**

B. Steps to finding a bearing **by landmark:**

1. hold the compass waist high so that the direction of travel arrow is pointing toward the object you want to find the bearing of.
2. rotate the bearing ring until the red $\frac{1}{2}$ of the magnetic needle and the orienting arrow are lined up with each other (red on red).
3. look down at the direction of travel arrow. The bearing lined up with the direction of travel arrow is the bearing of the object you are pointing at (hint: rotate your body and the compass as one, do not turn the compass.)
4. now you have the bearing (degree) and you know the direction of an object off in the distance.

C. Steps to finding a bearing **by degree:**

1. hold the compass parallel to the ground waist high, keeping the direction of travel arrow pointed away from you.
2. rotate the bearing ring, until you line up the bearing you want with the direction of travel arrow on the compass
3. rotate your body and the compass as one, until the red $\frac{1}{2}$ of the magnetic needle lines up with the red orienting arrow (hint: line up the red arrows).
4. follow the direction of travel arrow keeping the red arrows lined up as you take a walk following this bearing (hint: find a landmark to look at, it will help keep you on a straight line).