First time orienteering? Welcome!

To help you get the most enjoyment out of your first attempt at orienteering, it helps to have a solid understanding of orienteering maps and a few basic techniques. Below are some tips to get you started.

You may already be familiar with using topographic maps. Orienteering maps are little bit different in several ways. O-maps are more "zoomed in", i.e., larger scale, than most standard topo maps. O-maps also use different symbols and colors and are also oriented to magnetic north. We'll talk about these, and a few other map features and techniques.

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These instructions are based on material produced by Columbia River Orienteering Club
https://www.croc.org/beginners

1 - Scale

On maps, scale is a ratio between a distance on the map and a larger distance in the real world. A typical orienteering map is printed at a scale of 1:10,000. This means that one "unit", say, a centimeter, on the map equals 10,000 "units", or 10,000 cm = 100 meters, in the real world. Orienteering maps are almost always measured in meters, which makes the scale conversions much easier. At orienteering events you'll often see that beginners courses are printed at a 1:5,000 or 1:7,500 scale.

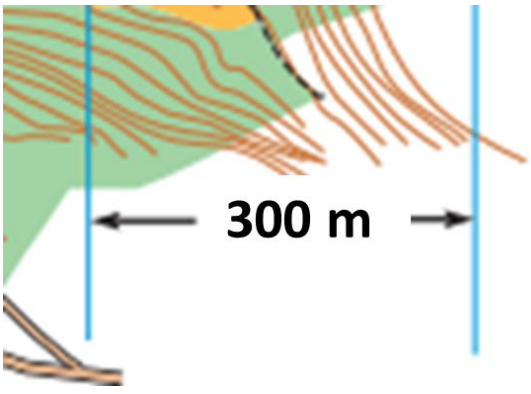
So, why is this useful? Most people have a sense of approximately how far 100 meters is on the ground. If you look at your 1:10,000 scale O-map and see that your next control point is about 2 cm away, then you should be thinking, "I have about 200 meters to go until the next control."

More advanced orienteers sometimes use a technique called pace counting to more accurately determine distance. This is an intermediate/advanced level skill, and you should not need to do this on a beginning course.

2 - Magnetic north

Orienteering maps typically have thin vertical lines drawn on them to indicate magnetic north. (This is different than a normal topo map, where vertical lines point to true north, not magnetic north.) The good news: in orienteering, you do NOT need to adjust your compass for magnetic declination.

Note that the distance between the vertical lines representing magnetic North typically represent 300 m in the real world. This can be a useful way to quickly estimate longer distances between points.

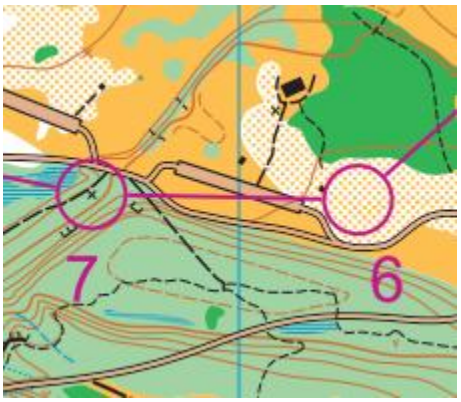


Note the blue lines indicating magnetic north, and the 300 meter distance between them. This is standard mapping practice on a 1 to 10,000 scale map.

3 - Orienting the map

When using a street map to find your way around a city, most people will hold the map so north is always at the top, making the text always readable, like a magazine. But in orienteering, it's better to hold the map so north on the map always matches magnetic north, no matter what way you are facing. This is called orienting the map.

Another way to think about it: you need to rotate the map so the direction you're walking is farthest away from your body. For example, if you're walking south, the south end of the map is farthest away from you. If you're walking east, the east side of the map is farthest away from you, etc. Doing this makes the terrain features you see line up with the map. This often means that you are holding the map upside down or sideways. This may feel odd at first, but you'll get used to it.



Example: Going from control 6 to control 7 with the map NOT oriented. North is at the top of the map.

Example: Going from control 6 to control 7 with the map properly oriented. West is at the top of the map.

4 - Thumbing the map

Thumbing the map is a simple yet very useful technique. First, fold your map to only show the quarter or so you are in, and then place your thumb next to your current location. Every time you move to a terrain feature that you can recognize on your map, you slide your thumb to that spot on the map. Your thumb becomes a “You Are Here” indicator. This allows you to keep your eyes on the terrain around you, and when you do glance at your map, focus quickly on just the area you need to find the next control. This is a powerful technique used by orienteers at all levels, and it's a great habit to acquire as a beginner.

Tip: A great way to practice both orienting your map and thumbing is to print out one of our training maps from a past event (*See croc.org >> Training >> Event Maps)*, find a map for a nearby park, print it, and just go for a walk over the marked course, practice thumbing your map as you go.

Map is folded, and thumb marks the position, nice technique!

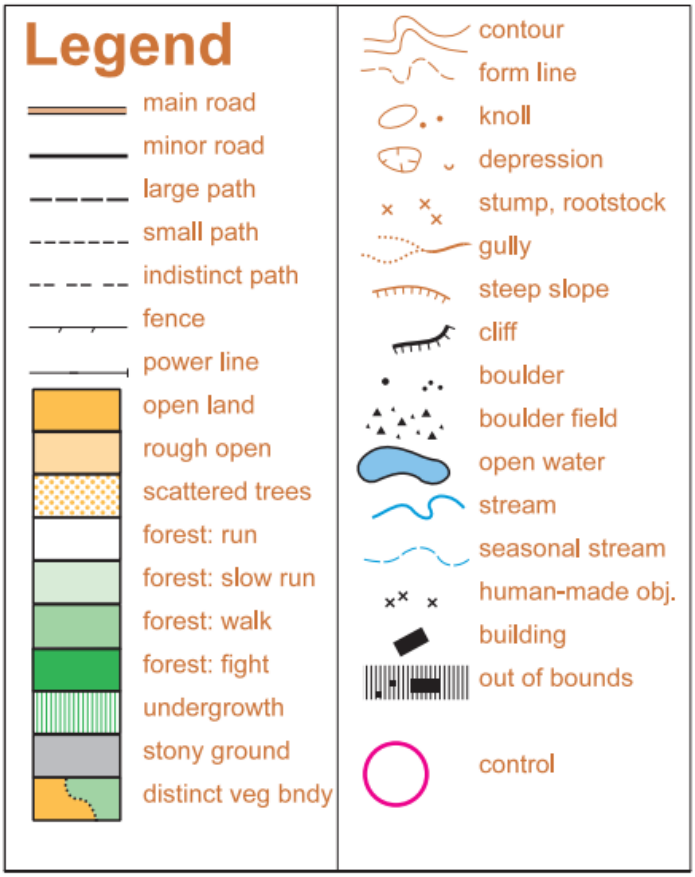
5 - Map legend and colors

The legend on the map explains the colors and symbols you'll see on your map.

Orienteering maps use colors and symbols to represent different types of terrain. It may look odd at first, but it becomes easy to interpret once you know the basic concepts. Orienteering maps use five standard colors:

1. **White**: Open forest you can easily run through
2. **Yellow-Orange**: Open land or rough open land, still runnable
3. **Green**: Thicker vegetation where you can't run at full speed. The darker the green, the thicker the undergrowth. (Dark green = evil blackberries or impassible vegetation, look for a trail!)
4. **Black**: Man-made objects or rocks, such as buildings, road, trails and boulders
5. **Brown**: Contour lines or landforms, such as an earthbank, small gully or knoll

For beginners, here's the key thing to remember about map colors: if it is white or some version of orange, you can easily run through it. If it's some version of green, either solid or striped, running through it is going to be difficult to impossible.



6 - Compass

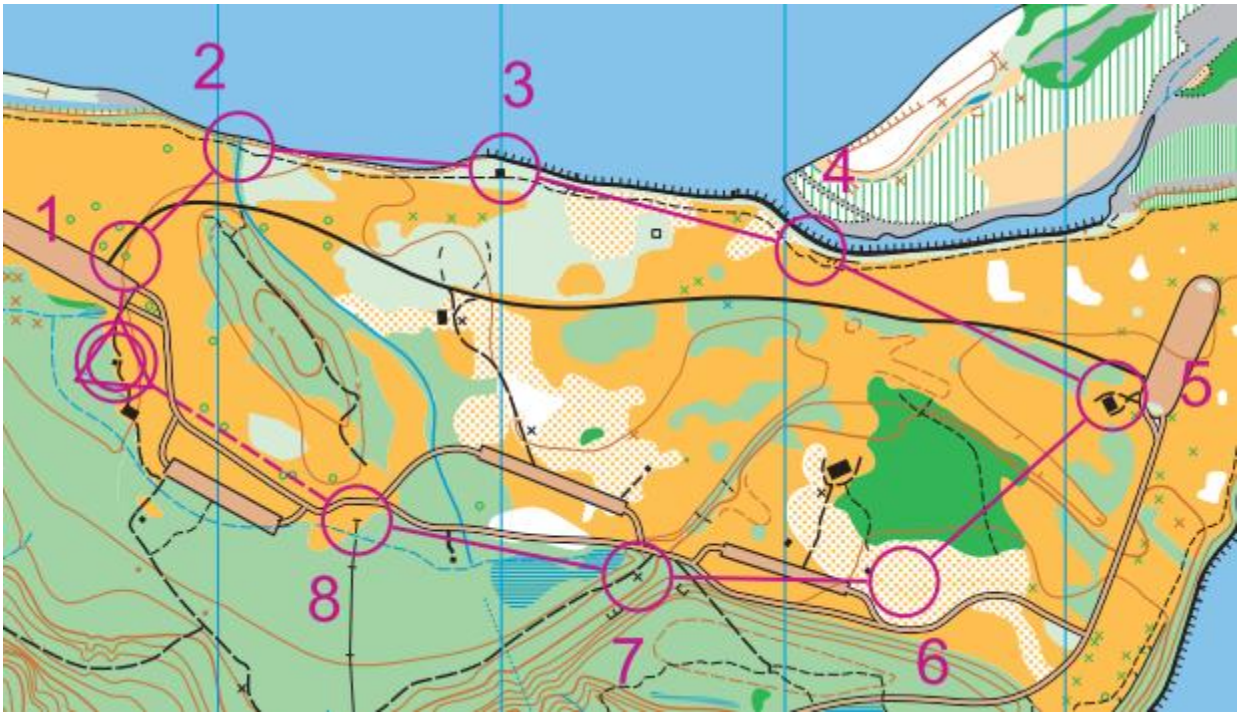
The good news: rarely will you need a compass on a beginner course. Map reading skills alone should get you through. Compass use typically becomes more important as courses increase in difficulty, but you probably do not need one now. One less thing to concern yourself with!

7 - The O-course

Beginning O-courses are typically between 1.5 and 3 km long. Control points are normally placed at trail intersections and along easy-to-follow linear features like trails or streams.

- The control points are marked on your map using circles. The control point is found in the center of the circle.
- The lines connecting the circles indicate the approximate direction between points, NOT the direction you need to go! The best route is very rarely a straight line distance between control points.
- The start of the course is marked on your map with a triangle, and the finish with a double circle. Often these are the same location, and printed on top of each other, as in the example below.

Have a look at the map below.



Let's summarize some of the things we discussed above, using this map example. Just by looking at the map, we can quickly deduce the following about this course.

A. The approximate direction from control 1 to control 2 is northeast.

B. Knowing that the blue magnetic north lines are 300 m apart, the distance from control 2 to control 3 is about 300 meters.

C. Controls 3 and 5 are black rectangles, which from the legend we can see are buildings.

D. Most all of the course is on trails and roads or through orange or light green parts of the map, meaning vegetation is minimal and foot travel is easy.

That's enough to keep you busy for a while!

Our advice: Stick to the beginner and advanced beginner courses for your first few events until you become comfortable with these map concepts. When you're ready to start heading off trail, pace counting, and using your compass more, have a look at our Intermediate orienteering skills page.