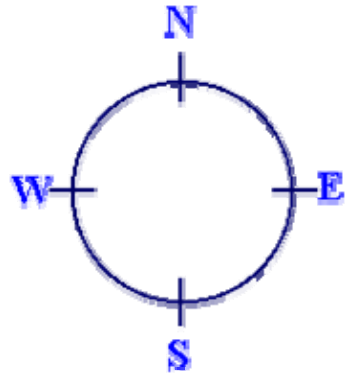


Kjetil Kjernsmo's illustrated guide on

How to use a compass

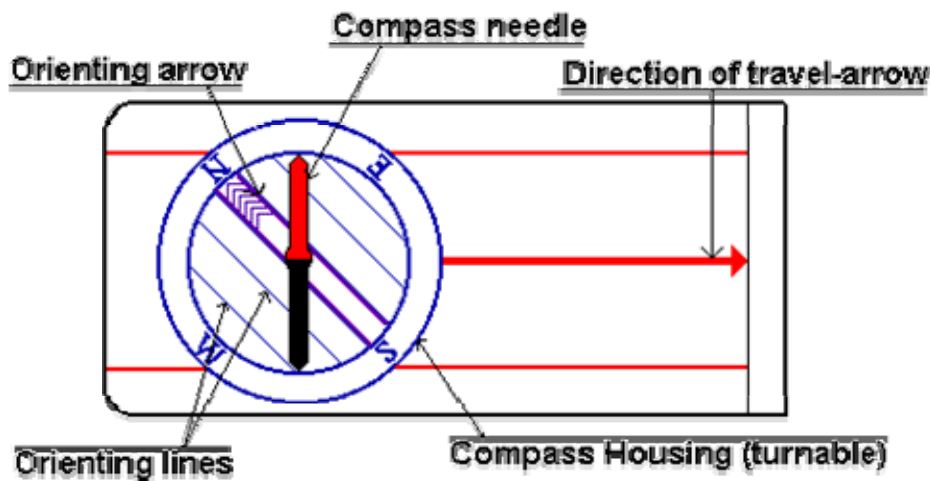
Using the compass alone

This is a very easy lesson, and I would say, not sufficient for those who would like to travel safely in unfamiliar terrain.



The first thing you need to learn, are the directions. **North, South, East and West.** Look at the figure and learn how they are. North is the most important.

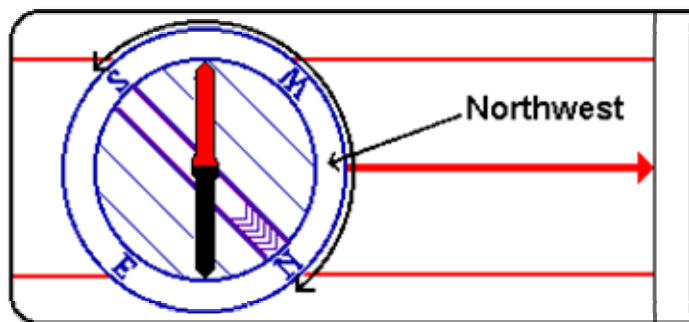
There are several kinds of compasses, one kind to attach to the map, one kind to attach to your thumb. The thumb-compass is used mostly by orienteers who just want to run fast, and this is the kind of compass I normally use. But not in this tutorial. I would recommend the third kind of compass. Let's take a look at it:



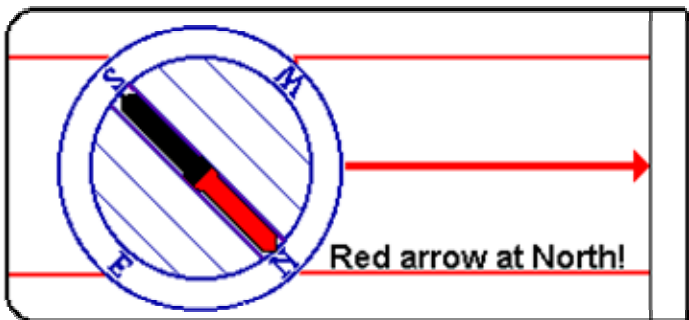
You see this red and black arrow? We call it the *compass needle*. Well, on some compasses it might be red and white for instance, but the point is, **the red part of it is always pointing towards the earth's magnetic north pole.** Got that? That's basically what you need to know. It's as simple as that.

But if you don't want to go north, but a different direction? Hang on and I'll tell you.


You've got this turnable thing on your compass. We call it the *Compass housing*. On the edge of the compass housing, you will probably have a scale. From 0 to 360 or from 0 to 400. Those are the degrees or the *azimuth* (or you may also call it the bearing in some contexts). And you should have the letters N, S, W and E for North, South, West and East. If you want to go in a direction between two of these, you would combine them. If you would like to go in a direction just between North and West, you simply say: "*I would like to go Northwest*".




Let's use that as an example: You want to go northwest. What you do, is that you find out where on the compass housing northwest is. Then you turn the compass housing so that northwest on the housing comes exactly there where the large *direction of travel*-arrow meets the housing.



Hold the compass in your hand. And you'll have to hold it quite flat, so that the compass needle can turn. Then turn yourself, your hand, the entire compass, just make sure the compass housing doesn't turn, and turn it until the compass needle is aligned with the lines inside the compass housing.

 Now, time to **be careful!** It is *extremely* important that the red, north part of the compass needle points at north in the compass housing. If south points at north, you would walk off in the exact opposite direction of what you want! And it's a very common mistake among beginners. So always take a second look to make sure you did it right!

 A second problem might be local magnetic attractions. If you are carrying something of iron or something like that, it might disturb the arrow. Even a staple in your map might be a problem. Make sure there is nothing of the sort around. There is a possibility for magnetic attractions in the soil as well, "*magnetic deviation*", but they are rarely seen. Might occur if you're in a mining district.

When you are sure you've got it right, walk off in the direction the direction of travel-arrow is pointing. To avoid getting off the course, make sure to look at the compass quite frequently, say every hundred meters at least. But you shouldn't stare down on the compass. Once you have the direction, aim on some point in the distance, and go there. But this gets more important when you use a map.

There is something you should look for to avoid going in the opposite direction: The Sun. At noon, the sun is roughly in South (or in the north on the southern hemisphere), so if you are heading north and have the sun in your face, it should ring a bell.

When do you need this technique?

If you are out there without a map, and you don't know where you are, but you know that there is a road, trail, stream, river or something long and big you can't miss if you go in the right direction. And you know in what direction you must go to get there, at least approximately what direction.

Then all you need to do, is to turn the compass housing, so that the direction you want to go in, is where the direction of travel-arrow meets the housing. And follow the above steps.

But why isn't this sufficient? It is not very accurate. You are going in the right direction, and you won't go around in circles, but you're very lucky if you hit a small spot this way. And that's why I'm not talking about *declination* here. And because that is something connected with the use of maps. But if you have a mental image of the map and know what it is, do think about it. But I think you won't be able to be so accurate so the declination won't make a difference.

If you are taking a long hike in unfamiliar terrain, you should always carry a good map that covers the terrain. Especially if you are leaving the trail. It is in this interaction between the map and a compass, that the compass becomes really valuable. And that is dealt with in [lesson 2](#).



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