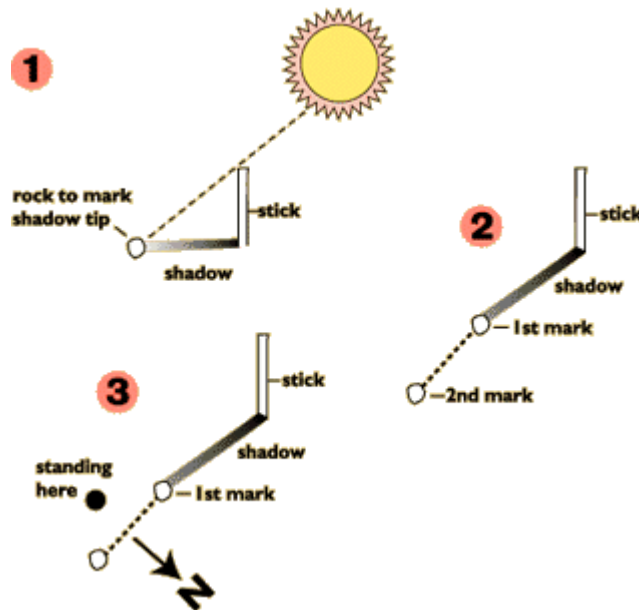


# Finding Your Direction When Lost

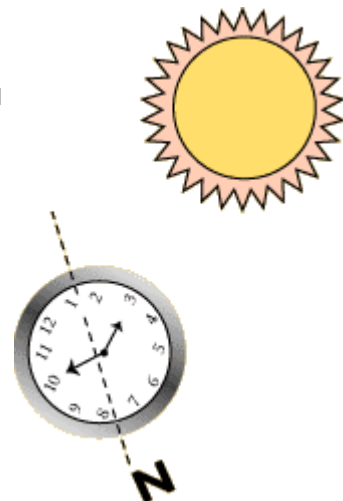


## The Shadow Tip

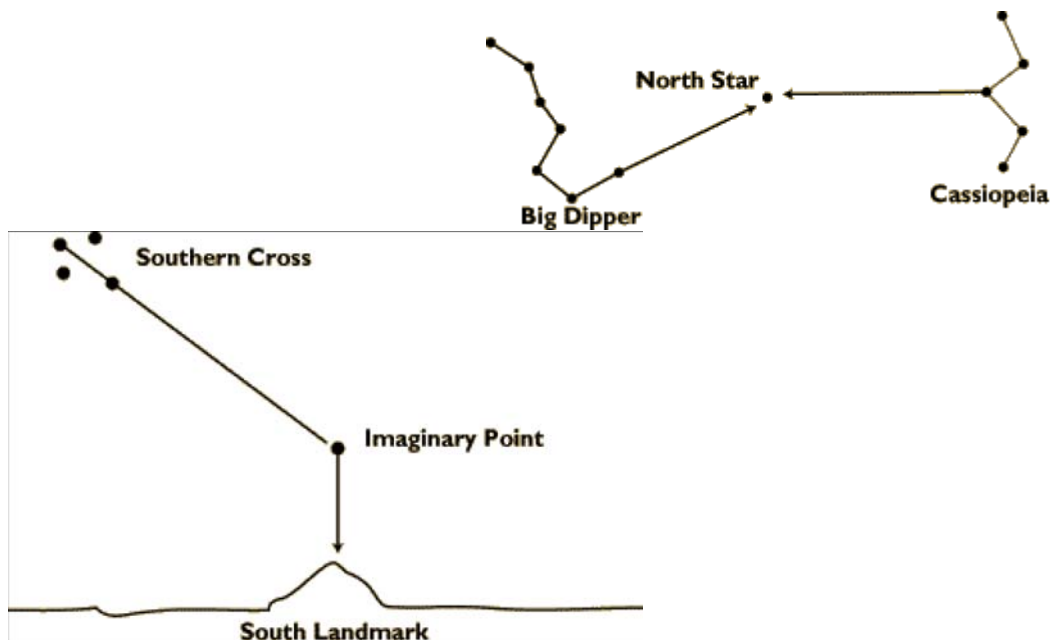
Find a straight stick about a meter long and locate a level spot with no brush in which a shadow will be cast. Place the stick in the ground and mark the shadow's tip. Wait 10-15 minutes until the shadow tip moves a few centimeters and mark the shadow tip's new position. Then draw a line through the two marks to obtain an approximate east-west line. The first mark will always be west. Stand with the first mark (west) to your left and the second mark to your right. You are now facing north.

## Using a Watch

If you have a watch with hands, it can help you find your way. The direction will be accurate if you are using a true local time with no changes for daylight savings time. Also, the further you are from the equator, the more accurate this method will be. If you have a digital watch, all is not lost. Just draw a circle on a piece of paper with the correct time shown. Assuming you are in the northern hemisphere, hold the watch horizontal and point the hour hand at the sun. Bisect the angle between the hour hand and the 12:00 mark to get a north - south line. If you have trouble deciding which end of the line is north, remember that the sun rises in the east and sets in the west. It is due south at noon, east before noon, and west after noon. Note: If your watch is set on daylight savings time, use the midway point between the hour hand and the 1:00 mark to determine the north - south line.



## The Night Sky



To locate the North Star, the Big Dipper (Ursa Major) and Cassiopeia are helpful, because neither of these constellations ever sets and thus are always visible on a clear night. After finding the North Star, imagine a line drawn from the North Star perpendicular to the earth. The point at which the line reaches the horizon is north.

There isn't a star bright enough to be easily recognized near the south celestial pole, so you can use instead a constellation known as the Southern Cross. It has five stars, of which the brightest four form a cross that tilts to one side. The pointer stars are the ones that form the long axis of the cross. Determine south by imagining a distance five times that of the two pointer stars. The end of the imagined line is in the general direction of south. Look to the horizon for a landmark to steer by.

**Moon**-You can use the moon to determine a rough east - west direction. If the moon rises before the sun sets, the illuminated side will be west. If the moon rises after midnight, the illuminated side will be east.

**Moss**- The old saying that moss grows on the north side of a tree is only partially accurate. Moss does grow on the north side of a tree; however, it also grows on the south and all the way around. In reality, moss growth is more vigorous and lush on the side of the tree facing the equator.

**Vegetation and Moisture**-North-facing slopes receive less sun than south-facing slopes and are therefore cooler and damper. In the summer, north-facing slopes retain patches of snow. In the winter, trees on south-facing slopes are the first to lose snow and the ground snowpack is more shallow.

**Making a Compass**-Use a piece of ferrous metal that can be shaped into a needle or use a double-edged razor. You will also need a piece of non-metallic string from which to suspend the metal. Polarize the needle by slowly stroking it in one direction through your hair, using deliberate strokes. You can also polarize the needle by stroking it repeatedly at one end with a magnet, rubbing in one direction only. If you have a 2 volt or higher battery and some wire, you can polarize the needle electrically. If the wire isn't insulated, wrap it in paper to prevent contact. Coil the wire and place the ends on the battery's terminals. Repeatedly insert one end

of the metal object in and out of the coil. The needle will become an electromagnet. When suspended from a non-metallic string or floated on a small piece of wood in water, the needle will align itself with a north - south line.