# Reading a Map

opographical maps are used to identify topographical features, like lakes, rivers, hills and mountains. A topographical map shows changes in elevation, or height, of the land around you by how lines are drawn on the map. This is what Mount Washington, the highest mountain in New Hampshire looks like to somebody standing far away, looking at it from the south.



This is how Mount Washington looks from far above the earth. Topographic maps are drawn from overhead photographs of an area, like the one above, and from information gathered on the land itself by surveyors and others who record information about topography.



Credit: mobilemaplets.com

Above is a topographical map drawn from overhead photographs and land surveys over the years, representing the location of several trails, ravines and other features around Mt. Washington. If you look closely, you can see numbers that indicate the elevation of the land (how high it is above sea level) in several areas.

The closer together the lines are on the map, the steeper the slope of the land. The farther apart, the flatter the land. Do you see how the lines on the map represent the mountains and ravines in the two photos to the left? This terrain represents some fairly drastic changes in elevation, so there is not a lot of flat space!

Look at the area around you. The topographical map on the right shows the school, the Lamprey River and wetlands. It also illustrates changes in the terrain that include both flat and steep areas.

Look at the slope of the riverbank on the other side of the river and how it is rising (see topo map in upper right corner). At the bottom edge of the riverbank, as it meets the water, it is at 180 feet above sea level. As you follow the contour lines up the bank, the elevation increases gradually to 210 feet at Route 27. Looking farther up on the map, you can see the contour lines getting closer together as you travel up Long Hill Road, to 260 feet, 280 feet, then 290 feet – about 110 feet higher than the river!



# Topography & Trail Information



# **Trail Safety and Etiquette**

Going hiking on trails can be a lot of fun! Hikers use trail maps with topographical information on them to go hiking on many of the incredible trails systems that are located in New Hampshire and around the country. There are some things that are very important for hikers to know before they embark upon a hiking adventure.

# Trail Safety

It is important to know where you're going and to stay on the trail. That way it is less likely that you will get lost and you will not damage the forest, wetland or other habitat by stepping all over it.



# **Trail Blazes**

Many trails are marked using different methods. Marks are also called "blazes." This comes from the term "trail blazing." Most blazes these days are made using paint, like the marking in the photo above. In some areas, where there are no trees, trails are marked using "cairns" (piles of rocks two or three feet tall). Can you think of other ways to mark a trail?

# Hiking Etiquette

Trail etiquette is how you use the trail with others and includes being polite, making sure everyone is able to use the trail together, while showing respect for other hikers and nature. When you hike on a trail, you should strive to "leave no trace." Do not litter or damage trees, bushes or other features along the trail.

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Credit: CAI Technologies