

NATURE ACTIVITIES

HIKING WITH A MAP

Would you like to learn the basics of reading maps while hiking? This lesson instructs how to read map symbols, contour lines, cardinal directions and informs how to go out onto the trail and navigate!

PART ONE - STUDY THE MAP

Resources/materials needed: Original Map, zoom copy of section of trail you will be using, markers, ruler

Skills: Cognitive, Motor Skills, Environmental Appreciation, Hand-Eye Coordination, Navigation

DIRECTIONS:

Step 1: Find a local space you would like to hike and find the map for it online or at its site location, Copy and print out the section you will be hiking.

Step 2: It is good for young learners to learn navigation in stages so that there is time to absorb the information. Set up a station to read the maps and focus on teaching symbols. A great way to learn symbols is by playing [Map Symbol Bingo](#)!

Look at the Key

How are roads shown on the map? What do footpath trails look like? What identifies streams and rivers? Can you tell the difference? Can you see wooded areas? Identify contour lines
Red line = major highway, yellow line = back-country road, green line = medium-sized roads, big dots = towns

Have your child make their own key for a map of your street or house. Use markers and make them colorful identifying key points

Step 3: When learning topography, contour lines mark equal elevation on a map. So each ring represents a change in elevation. Learn how to make your own contour lines in 3D by using legos. [Click here to learn more](#)

Step 4: Orienting the map can be done by using the acronym NSEW going clockwise (Never Eat Soggy Waffles). This is done clockwise. Remember North is always on top on maps.



Photo Credit: PA Hikes

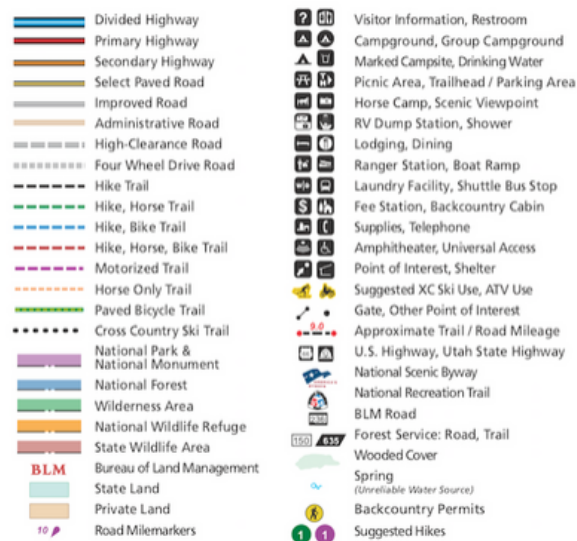


Photo Credit: Gaia GPS

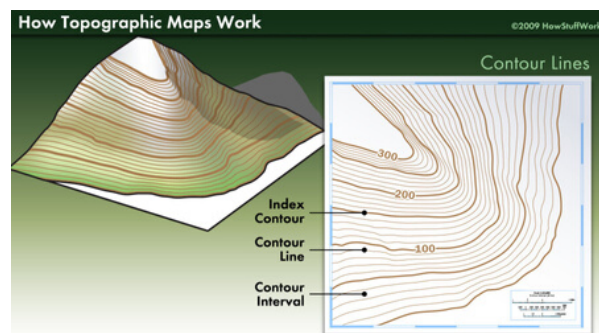


Photo Credit: How Stuff Works

Orienting a map means aligning the north arrow of the map with the physical north outside. Find the north on the map and use a compass to find north where you are standing. You can practice using a compass on walks or in your backyard.

Step 5: Instruct your child to give directions such as keep straight, turn right, turn around, go left. Directions let the hiker or driver know what to do next.

While doing this, estimating distances is a great thing to learn. You can use this by looking at the key and there should be a scale that shows that 1" equals so many miles for example. Have your child estimate a distance of a highlighted trail on the map.

Step 6: Test your learner! Have them locate a hill or mountain. Then a wooded area. Have them identify a trail from a main road. Have them locate which way is moving north on the map.

Step 7: Have your child continue to create their own map of your neighborhood, backyard or home that evolved from the key created earlier. Have them estimate distances and use a compass to get true directions. (this can be skipped if your child is too young to filter the information of the compass on top of the rest of map reading)

Step 8: After their map is done being created, have them take outside and direct you around. On the flip side, you can navigate through yourself on the map to see how accurate it is. If you have multiple children, let them trade maps and go on an adventure. It can become a scavenger hunt as well.

Step 9: Now it's time to go out onto the trail that you learned from and have your child navigate through the trail you decide to go on. Try the Scotia Barrens Map for example and see how their map reading skills develop!

Reflection: What was most challenging about reading maps? Do you understand topography? What was your homemade map of and was it readable for others? Did you make it through the trail successfully while navigating? Are you interested in reading more maps and becoming a navigator on all of your hiking trips? What was the most enjoyable part of this lesson?

Resources:

getoutwiththekids.co.uk/family-hiking/teaching-kids-map-reading/
frogmom.com/teaching-kids-how-to-read-a-map/
nobodyhikesinla.com/2019/09/15/why-teaching-kids-map-reading-skills-is-important-and-how-to-do-it-guest-post-by-beatrice-callen/



Photo Credit: Nobody Hikes in LA



Photo Credit: Canva



Photo Credit: Canva



Photo Credit: Canva

premeditatedleftovers.com/naturally-frugal-mom/teaching-kids-how-to-read-a-map-and-use-a-compass/