

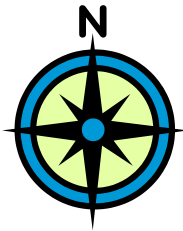
Keep Learning

There are many websites available to learn more about using a compass. Simply type “how to use a compass” into your search engine to get started.

Once you become more comfortable with using a compass and pacing, you may be looking for some new challenges. Begin by learning how to navigate the landscape near you by using a topographical map with your compass. These maps can be found on the internet or at sporting goods stores.

To find other Pennsylvania State Parks with orienteering courses, visit:

www.dcnr.state.pa.us/stateparks/recreation/orienteering/index.htm



For more information

Parker Dam State Park
28 Fairview Road
Penfield, PA 15849

Phone: (814) 765-0630

Email: parkerdamsp@pa.gov

www.visitPAparks.com

ORIENTEERING

at Parker Dam State Park



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Orienteering

The definition of orienteering is, “a cross-country race in which each participant uses a map and compass to navigate between checkpoints along an unfamiliar course.” Orienteering began in the late 1800’s and was employed by the Swedish military. Introduced as a sport in Sweden in 1918, it later spread throughout Europe. The winner is the participant who completes a designated course in the fastest time. Orienteering is also practiced by cyclists, canoeists, horseback riders, and skiers.

“Orienteering” is also often used as the term to describe the act of navigating across a landscape using the skills and tools used in the sport with the same name.

Compass and Map Skills

These skills are critical to orienteering as a sport, but also to anyone wanting to navigate the landscape using the traditional tools of a map and a compass. With this guide, you will be able to practice some of the basic skills needed to use a compass. To gain proficiency, you will need to go through the practice activities found in this brochure, as well as attempt one, or both, of the orienteering courses

established in the park.

To gain experience using a map, use a USGS quadrangle map, or similar topographical map, to become familiar with this type of map and its features. Also, look for scheduled orienteering, navigation, compass, and map interpretive programs at Parker Dam State Park, or other Pennsylvania state parks, by checking the DCNR *Events Calendar* at www.visitPAparks.com.

Other Terms to Know Before Continuing

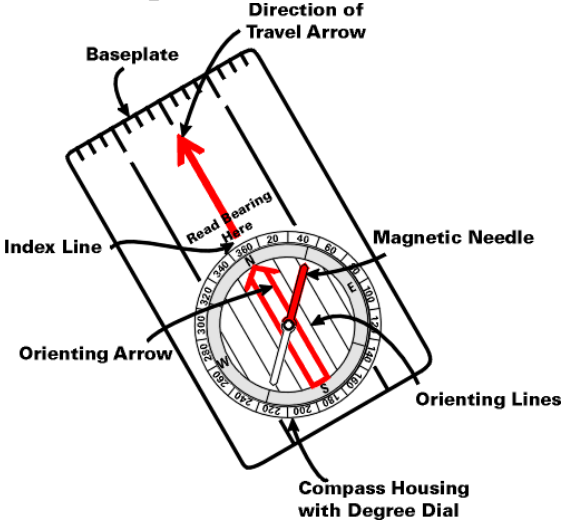
azimuth- originally meaning “the way”, it simply indicates a way or direction to go; each degree on a compass dial is an azimuth direction

degree- basic unit of measurement of angles; 360 degrees equal the circumference of a circle

magnetic north- the direction to which the needle of a compass points; map and compass users must account for declination (difference of magnetic north from true north) when determining azimuths with a compass on a map

pace- a method used to measure the distance travelled by counting the number of steps taken; a pace is two steps; average adult pace is about 5 feet, or 20 paces per 100 feet walked

The Compass



Because of the Earth’s magnetism, a compass’s needle always points towards magnetic north. The direction opposite north is south; and the directions perpendicular to the north-south line are west and east. North, south, east, and west are the original cardinal directions. Intercardinals, which were necessary for accuracy, were added to the original cardinal directions. Today there are 360 degrees, each degree representing a direction, or azimuth, from a location.

Practice Activities

#1 - Place a marker at your feet to start. Set your compass to an azimuth between 0° and 120°. Orient your compass and walk a set number of paces. At the new location, add 120° to your azimuth and pace the same distance. Do this a third time, adding 120° to your azimuth once again. How close to your marker are you? (Try this activity once using a short pace/distance, then again using a longer pace/distance and see how the longer distance affects your results.)

#2 - Use the same method as Activity #1, using the following azimuths and distances: 72° for 25’, 132° for 50’, 192° for 75’, 252° for 25’, 312° for 50’, 12° for 75’.

Orient your compass by turning the housing/degree dial until the azimuth you wish to travel is in line with the index line/direction of travel arrow. Hold the compass in front of you waist-high, keeping the compass level/flat. The direction of travel arrow should be straight out in front of you. Rotate your body until the red end of the needle is aligned inside of the orienting arrow. You are now facing the direction you wish to travel.

Finding and Using Your Pace

Using a compass to navigate requires that you also measure the distance that you travel. The best way to do this is to establish your pace (see “Terms to Know”). Walking along a 100 foot distance is a good way to develop a comfortable pace.

At Parker Dam, a measured 100 foot distance is marked on the road near Pavilion 6 to develop pace. Look for white markings along the pavement by Pavilion 6 and near the intersection with Fairview Road (which runs in front of the Park Office).

While navigating, you will have to figure out the total paces needed to cover the required distance. Example - your 100 ft. pace is 20 and you need to go 500 feet. You can either go 100 paces (20/100 x 500), or you can count 20 paces five times. Sight an object (landmark) in the path of travel and walk toward it. Continue this process using landmarks, by keeping track of your total number of paces, until you have covered the necessary distance.

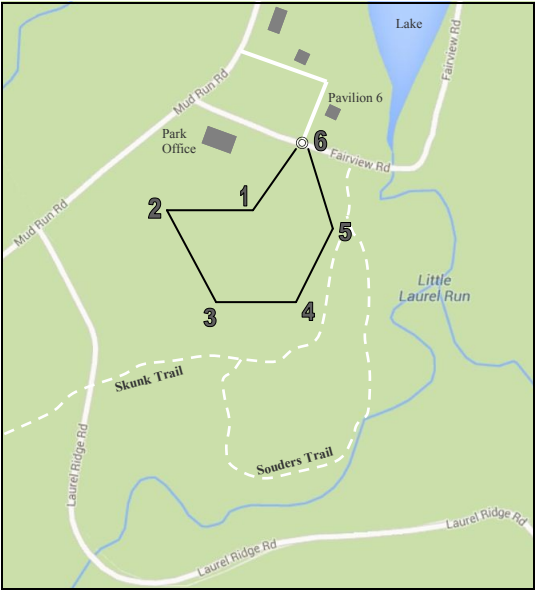
Note: Your pace can be affected by terrain and elevation in the field. Obstacles and elevation change may force you to adjust your pace as you go.

Parker Dam State Park Course 1

Start: A blue pin is located in the intersection of Pavilion 6 road and Fairview Road (campground road).

(turning points are 2” x 2” wood stakes topped in white paint)

Point	Azimuth	Distance
1	225°	540 ft.
2	272°	500 ft.
3	159°	650 ft.
4	99°	540 ft.
5	33°	500 ft.
6	347°	500 ft.



Safety Tips

- Go with a friend or family member
- Carry a map and know what’s around you
- Wear insect repellent and check for ticks
- Be aware of hunting seasons

Parker Dam State Park Course 2

(developed by Maria Lang, Girl Scout Gold Award project)

Start: “Start” post is located just past Souders Trail trailhead sign to the right of the trail in the hemlock trees.

(turning points are numbered 4” x 4” wood posts topped in yellow paint)

Point	Azimuth	Distance
1	265°	250 ft.
2	15°	200 ft.
3	265°	625 ft.
4	160°	200 ft.
5	270°	250 ft.
6	160°	675 ft.
7	85°	500 ft.
8	20°	718 ft.

