

# Adventures/Outdoor Education



## Safety

Safety considerations apply to orienteering activities at off-school locations. Such events require forethought and hazardous terrain, roads and traffic, fences, streams, animals private property, and environmental concerns. Normally, orienteering activity within the confines of the school and school confines is considered quite safe.

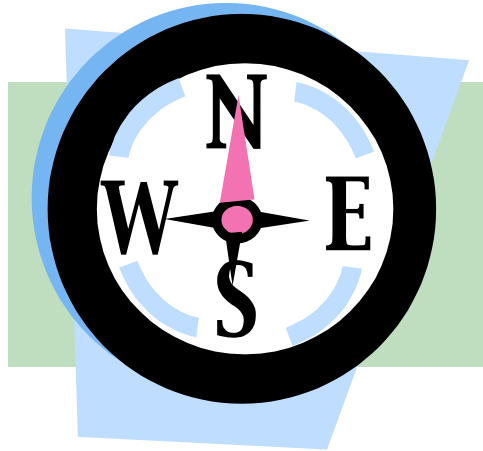
## History

Orienteering is a unique and exciting sport that combines compass and map reading with walking and running in a cross-country race in which participants navigate an unfamiliar course. The sport can be traced to Sweden, where Ernest Killander is credited with the introducing it in 1917. Because the Swedish people enjoy outdoor activities, it is understandable that they combined the basic skills of compass and map reading with hiking to form a vigorous leisure pursuit. In the 1940's orienteering became a compulsory activity in Sweden physical education classes, and today it is not unusual for large meets in Scandinavian country to draw thousands of participants.

Although compass and map reading have been used for centuries in land and sea navigation, it was mainly through the scouting movement that orienteering skills were first introduced in North America. With the advent of wilderness education, survival courses, and Outward Bound programs in the United States and the growing popularity of orienteering in Scandinavian countries, the sport gained acceptance. Orienteering is taught in many U.S. university physical education programs and is practiced in clubs scattered throughout the nation.

Orienteering offers a challenging and inexpensive way of exploring the out-of-doors through the use of the compass and map reading. Many different types of orienteering activities can be adapted to meet the interest level of all people, regardless of age and gender. It can be family or group-centered activity, a fun and cooperative game, or a highly competitive sport. Orienteering can easily be combined with a number of other outdoor activities such as hiking, camping, backpacking, bicycling, fishing, hunting, cross-country skiing, and nature study.

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## **Equipment**

Knowing how to use a compass and how to read a map comprises the mental skills of orienteering. Competitive events combine these skills with decision making and running. Hence the required equipment for the sport is simple---a compass and either topographical maps or hand-drawn maps showing important features needed for navigation. Most orienteering programs use a protractor compass or the Silva compass, which can be purchased for as little as eight (\$8.00) dollars. For class use, there should be no fewer than one (1) compass for every two students. Topographical maps of local areas can be obtained from sporting goods, bookstores, camping stores, or government agencies. A movie or videotape about orienteering would be helpful to introduce this activity.

## **Social Skills and Etiquette**

The social value of orienteering comes from the partner or small-group structure in which each person is responsible for giving input into solving navigational problem. Make students aware that decision making is a group process and that learning is maximized when all are involved. If you plan to orienteer on private property, always seek permission first and respect land, buildings, and cultivation.

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## Terminology

1. **Angle of Declination.** The angle representing the difference between magnetic north and true (or geographical) north. True north is a fixed location---the North Pole---whereas the magnetic north pole is a shifting location in the eastern Arctic usually identified in the Hudson Bay area of Canada. The spot is where the earth's lines of magnetic force converge and where the magnetic needle of a compass points. The Canadian government periodically gives an average location of magnetic north. The angle of declination on topographical maps becomes greater as the distance increases east or west of a north-northwestward/ south line going through the Hudson Bay area. The only area in which magnetic north and true north are approximately the same are those regions aligned vertically with Indiana, Georgia, and Florida. See the table for compass variations for the states, although differences in degrees are likely between the east and west side of the same state. For example, eastern Kentucky has a two (2) degree declination west and western Kentucky has a two (2) degree declination east.
2. **Attack Point.** An identifiable feature that serves as a guide in navigating to the control point.
3. **Base Point.** The place where one stands to navigate toward the control point. The base point can be the control point or an attack point used to sight the next control point.
4. **Bearing.** A direction of a given point measured in degrees from north going in a clockwise direction.
5. **Beeline.** A straight line.
6. **Control Point.** The marker or place to be located in orienteering. It is designated on the map.
7. **Geographical Map.** A regular map that shows a flat portion of the earth's surface using conventional signs, longitude and latitude degrees, and true north or geographical north.
8. **Shoot a Bearing.** The act of determining the direction of travel in degrees from north using a compass and visible landmarks or control points.
9. **Topographical Map.** A map that shows a portion of the earth's surface in reduce form and gives both man-made features (roads, bridges, buildings, etc.) and natural features (lakes, streams, cliffs, woods, fields, etc.) plotted to a definite scale. Elevation is shown by contours of concentric rings---the center ring is the highest elevation and each outer ring represents a change downward. The top of the map faces north and usually the angle of degree between magnetic north and true north are given. A legend provides the various symbols used to describe the features.
10. **Silva System.** A means devised by the Swedes to combine the use of the Silva compass with a map to quickly identify the route to take to get from one point on the map to another.