

# Orienteering



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EDU 255  
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## Objectives

### Psychomotor

1. By the end of the unit, the students will be able to correctly pace themselves using the pacing technique 3 out of 4 times when tested by the teacher (NYS Standard 1A/NASPE Standard 2)
2. At the end of the unit, students will be able to complete an orienteering course set up by the teacher in under 20 minutes but in no more than 35 minutes while using a map and compass (NYS Standard 1A/NASPE Standard 1)

### Cognitive

1. By the end of the unit, students will be able to orient themselves and the map using the compass, the terrain, and the thumbing technique (NYS Standard 1A/NASPE Standard 2)
2. At the end of the unit, students will be able to correctly calculate their pace for a given distance 3 out of 4 times. (NYS Standard 1A/NASPE Standard 2)

### Affective

1. Throughout the unit, students will cooperate with others to correctly solve orienteering problems given by the teacher (NYS Standard 2/NASPE Standard 5)
2. By the end of the unit, students will appreciate orienteering because it's fun and because of its cognitive benefits and real world applications (NYS Standard 2/NASPE Standard 6)

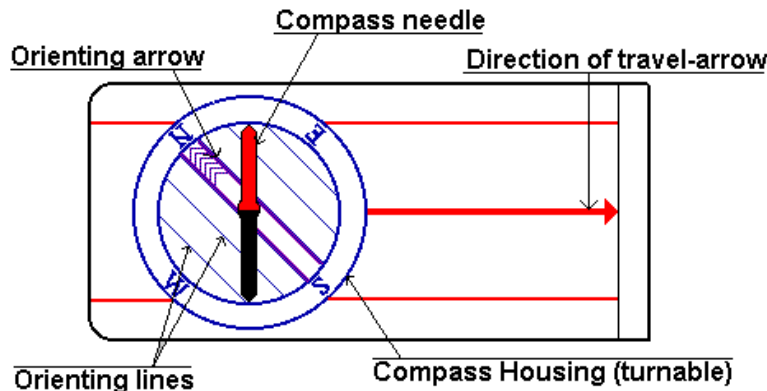
## History of Orienteering

Orienteering today is regarded as a competitive event, a leisure activity, and an essential survival skill for anyone who spends a lot of time in the wilderness. But orienteering wasn't always the way it is today. Prior to 1886, orienteering wasn't even called "orienteering" and it was used primarily by the military as a training exercise. In 1886, the actual term "orienteering" was used to mean "crossing unknown terrain with the use of a map and compass." On October 31, 1897, the first public orienteering event took place near Oslo, Sweden. After this, orienteering was very popular in the Nordic countries but was mainly a sport for adult men.

After World War 1, a Swedish major named Ernst Killander, decided to use orienteering to revive young people's love for athletics. Within a few years, orienteering had become a major sport. The first major orienteering event was held south of Stockholm, Sweden and was attended by 220 athletes. This event was a huge success led to another rise in orienteering's popularity. Killander continued to develop the rules and principles for the sport and he is regarded as the "Father of Orienteering."

Today, orienteering is an Olympic Sport and is enjoyed by many people throughout the world. The world governing body for orienteering is the IOF (International Orienteering Federation). The US has its own governing body called the USOF (United States Orienteering Federation).

## Terminology



**Orienteering:** Crossing unknown terrain with the aid of a map and compass

**Bearing:** The direction of travel as indicated by the compass.

**Orienteering the map:** Matching the orientation of the map to the features on the ground. This is one of the fundamental skills in orienteering, and leads to successful navigation. The map can be oriented either by comparing the map directly with the terrain or by using a compass to orient to north.

**Pace counting:** Counting the number of paces you take to estimate the distance you travel. Paces usually are counted one for every left/right combination. You need to determine your standard pace for various conditions (at least one for walking and one for running) on a fixed course of known length. Because the map is flat, it takes more paces to cover the same map distance going up or down hill than on flat terrain.

**Safety whistle:** A whistle that can be used if a participant is injured or lost. The International Distress Signal is six short blasts repeated at one-minute intervals. Whistles are required at many orienteering events and are often available from event organizers for a small fee.

**Legend:** A list of the symbols represented on the map.

**Control:** A checkpoint on an orienteering course that a competitor must visit to complete the course.

**Control Card:** A card carried by competitors which is stamped at each control as proof that they found that checkpoint.

**Control circle:** A circle drawn around a feature on the map to indicate the location of a control marker. The feature should be in the exact center of the circle.

**Control code:** Numbers on a control marker that enable participants to verify that it is the correct one (on rare occasions letters may be used instead of numbers).

**Contour interval:** the actual change in elevation represented by the space between two adjacent topographic "rings". For example, if there is a contour interval of 20 feet, each topographic line on the map represents going either up or down by 20 feet of elevation

## Procedures and Guidelines

- Always*** carry a whistle while orienteering
- The international distress signal (3 blasts of the whistle) should be familiar to all orienteers
- Make sure to wear proper attire for orienteering (sneakers or hiking boots, sunscreen, hat/visor, etc)
- Be respectful of all equipment, your map and compass are your best friend when out in the woods
- When competing, all orienteers must go to all controls in order
  - No following other orienteers. Find your own way!
  - No destroying, moving, or altering the controls in any way

### What students should be able to know and do

By the end of this unit, students should be able to:

- calculate their pace for a given distance
- work a compass and follow a bearing
- read a map
- orient a map using a compass
- orient a map using terrain
- identify typical map symbols
- successfully complete an orienteering course set up by the teacher
- correctly list the procedures and guidelines for orienteering
- identify safety precautions to be taken while orienteering

## End of Unit Performance Task

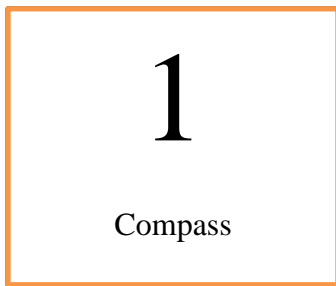
### Orienteering Course

**Student Objective:** Using the skills learned throughout the unit, complete an orienteering course set up by the teacher in under 35 minutes.

**Setup:**

-Place 20 controls around the school in locations that aren't obvious so that students don't see them before the test

Example control:



- Create a map of the school with the controls marked and numbered
- At each control, put bearings that the students can use to find the next control (Ex. 45 degrees NE)
- Create control cards that the students will need to write a secret word onto at each control (it's important to use different words or symbols at each control so that students can't cheat)

Example control card:

Name _____		Orienteering Final Course
1. _____	11. _____	<b>Directions:</b> At each control, write in the secret word that you find written on the control. Don't share the secret word with any other orienteers!
2. _____	12. _____	
3. _____	13. _____	
4. _____	14. _____	
5. _____	15. _____	
6. _____	16. _____	
7. _____	17. _____	
8. _____	18. _____	
9. _____	19. _____	
10. _____	20. _____	

**Adaptations:**

If necessary, the test can be adapted for any student who has a physical or mental handicap.

- test can be made shorter depending on student's specific needs and abilities
- time standard can be changed to make it realistically achievable for the student
- students can be allowed to have a partner or aid with them while they complete the course

**Affective Assessment:**

Students will also be assessed on affective skills associated with orienteering. (Scores based on checklist)

- Does the student have their safety whistle with them while doing the course?
- Is the student wearing appropriate clothes for orienteering? (i.e. sneakers/hiking boots, shorts, t-shirt, sunglasses, hat/visor, sunscreen (if outside))
- Does the student respect the equipment and return all equipment in acceptable and undamaged condition?



### Scoring Rubric for Course Completion Time

**Target-** <20 minutes

**Acceptable-** 20-35 minutes

**Unacceptable-** >35 minutes

### Affective Checklist

Does the student have their safety whistle with them while doing the course?

Yes No

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Is the student wearing appropriate clothes for orienteering? (i.e. sneakers/hiking boots, shorts, t-shirt, sunglasses, hat/visor, sunscreen (if outside))

Yes No

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Does the student respect the equipment and return all equipment in acceptable and undamaged condition?

Yes No

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## Resources

Benson, W. (2011, January 20). *Cardio Madness*. Retrieved from <http://pecentral.com/lessonideas/ViewLesson.asp?ID=10392>

Chernoff, L., & Odegaard, K. (n.d.). *Pe 352 unit plan*. Retrieved from <http://education2.uvic.ca/Faculty/thopper/Pe352/2002/LarryKirstenOrient8/index.html#TableOfContents>

Kjernsmo, K. (1997). *How to use a compass*. Retrieved from <http://www.learn-orienteering.org/old/lesson1.html>

*Orienteering: A Brief History*. (n.d.). Retrieved from [http://www.orienteering.asn.au/gfolder/Development\\_Resources/Orienteering%20History.pdf](http://www.orienteering.asn.au/gfolder/Development_Resources/Orienteering%20History.pdf)

*Orienteering Lingo*. (2011). Retrieved from <http://orienteeringusa.org/new-o/o-lingo>