

# Orienteering the Thinking Sport



An introduction to the sport of orienteering

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### **Introduction to Orienteering:**

Orienteering is a map and compass sport that was developed by the Norwegian army to train their troops in navigation and map reading skills. Orienteering has developed into a highly competitive sport. The traditional form of the sport is called foot-o which involves a running race through the woods. There are many different kinds of foot-o races but the competitive ones are the sprint distance, middle distance, and long distance. There are a variety of other forms such as, ski-o, canoe-o, bike-o, and a variety of others. In every category the races are set up in a similar way. A competitor receives a map of a certain area. On this map is marked a starting point, control points, and a finish point. The control points are usually on specific features. Using a compass and the map a competitor must navigate to all the control points in the order designated and end at the finish point. The competitor who finishes the course in the fastest time wins. Orienteering races are usually done individually with staggered starts. This can vary depending on the kind of race and level of the competitor. Simply orienteering is a sport that trains an athlete to be aware of their surroundings in relationship to themselves.

### **This presentation:**

This presentation will present orienteering as a competitive fun sport that has a variety of skills. The purpose is to show how the sport of orienteering can be broken down into different games and activities to teach children the basic skills needed. The presentation will focus on using a compass, reading a map, the different build up skills that would help an individual learn to navigate any space effectively and efficiently.

### **Standards in the education System:**

In the school systems today there are district, state, and national standards that teacher must meet to show that children are learning and being given worthwhile skills and knowledge for their development. Most standards are broken down into three domains. These domains are the psychomotor or motor skills, cognitive or knowledge, and affective domain or social communal aspect of an activity or sport. A fourth category that every teacher or physical activity leader is required to incorporate today is physical fitness and health. Orienteering can meet all of these categories very easily. Simple motor skills in orienteering are running, jumping, running with a map, and spatial awareness. Cognitive students are learning how to identify features on a map. They are reading map, using a compass, and figuring out the right route to take. Although orienteering is an individual sport, the communal aspect of it is very strong. In the affective domain, students can talk about their route choices or their struggles with a course. There are orienteering clubs all over the world outside of school that students can become involved in on many levels. Finally orienteering is a physically dynamic sport. It is a running sport, combined with muscular strength and flexibility to help meet physical fitness standards. All of these aspects will be addressed more in the presentation.

### **Pedagogical Approach:**

As educators, activity leaders, and coaches it is our job to identify where a student is developmentally on a physical, mental, and social level. Because of this, how and when we introduce certain activities is crucial for a child's engagement and development. If a child is given activities that they are not ready for they will struggle and lose interest. If a child is given activities that are too challenging they will lose interest. The key is giving children the right challenge at the right time. It is my suggestion that orienteering be introduced in 4<sup>th</sup> grade. It is

my experience that children of that age are spatially ready and responsible enough to begin to learn the sport of orienteering. Even in fourth grade you would want to start simple and build up to more complicated concepts and activities. This does not mean that introducing lead up activities in the younger years is not allowed. Playing games with the younger children involving north, south, east, and west can be very fun and enjoyable. For 3<sup>rd</sup> grade and under, the concepts of compass should be imaginative and creative for the children. They can be used as reference points and ways of being. For example a game that requires two sides of the gym could be called north and south or east and west. Using the sun as reference with east and west is very stimulating for the children. Starting in fourth grade it is good to start by introducing the children to the compass and playing fun games with the orientation. When the children have a good grasp of the compass, the map can be introduced. From then on keeping the games new and creative is important. For example when teaching the route choice skill come up with a variety of different ways to teach them the same skill. Again the importance is meeting the children where they are at, or just beyond the students ability for a challenge.

### **Physical fitness:**

Orienteering can be a very physically demanding sport. It can be tied into a running or endurance unit. Traditional orienteering takes place in the woods, running through brush, hopping over logs, jumping from rock to rock, leaping streams, and running along the side of hills. All of these activities require strong ankles, calves, quadriceps, and hamstrings. One activity to tie into orienteering is running an obstacle course. Combining jumping, running, hopping from object to object, and leaping over obstacles can help students develop the right muscle for the sport. These activities can be quite challenging and fun for the children. Another activity that can be fun having students run through an obstacle field and try to keep a straight line. This is good to practice when students are learning about compass bearings. The important part of the physical fitness aspect of the sport for the older students is relating the sport to fitness. The success in the sport is a combination of skill and fitness.

### **The orienteering community:**

Orienteering is a worldwide sport. There are orienteering clubs all over the United States and the world. Many of the clubs are looking for more participants. If you are interested in taking your orienteering unit to a new level, contacting and working with a club can be very helpful. A club might be able to make an orienteering map of the area around the school for you. They could help you with equipment, and materials. Part of this presentation is to promote orienteering in the United States. The orienteering community is looking for new members to learn the sport and help it grow. Working with a club can show students the nature of the sport outside of school. It can provide an opportunity for further knowledge outside of school. With cuts happening all over the nation in schools, starting a new after school programs is hard. A club can offer assistance in equipment and training. Below is a link to the US orienteering federation web site. This site can also be used to find out more information about orienteering.

<http://orienteeringusa.org/>

This next link lists all the clubs in the United States. Looking over it, you could find one close to you.

<http://orienteeringusa.org/club-leaders/club-directory>

Some other sites that might be informative:

The first link is to the international orienteering federation. This shows orienteering on an international level and all the different ways to have competitive orienteering.

<http://orienteering.org/>

This next link is a page on the US orienteering website that shows different equipment vendors. (Note equipment can be bought in a variety of places.)

<http://orienteeringusa.org/orienteers/o-vendors>

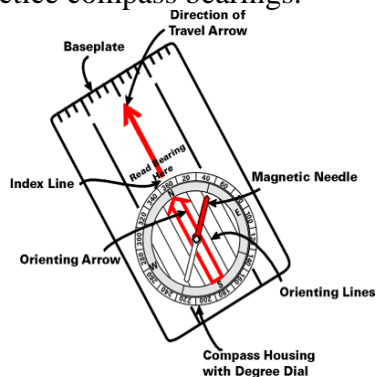
**Activity 1:** The first activity is an introduction to the points of direction. (See attached map 1 and 2 on the back.)

1. Place 8-24 directional signs around the gym/room. They should be set up similarly to a compass. N, S, E, W, NE, NW, SE, SW, SSW etc.
2. Have a map made of the room with the directions (N, S, etc) marked on the map. Underneath you can use any designation sign for the children to record. I use letters to spell out a word.
3. Draw a course between the different coordinates N, S, etc. Have the student go through it first coming back to the center after each control. Then have them go from point to point.

**Activity 2:** This activity will be an introduction to the compass.

1. Go over each aspect of the compass. The needle, the turning part and the plate. Talk a little about true north vs. Magnetic north.
2. Have children find and point to different directional points using the compass.

**Activity 3:** In this activity we will use the compass as a tool to follow a compass line or bearing. Use map two on the back for the activity. This activity will finish with a game that can be used to practice compass bearings.



1. Line the direction of travel arrow up with the direction you would like to go or with the line of direction point A to B.

2. Turn orienteering arrow so that the Magnetic needle sit right in the middle. This can be called “Red Fred in the Shed.”
3. Keeping “Red Fred in the Shed,” rest the compass in the palm of your hand and follow the direction of the directional travel arrow.
4. Game: Students start on a line either in teams or individually. If students are working individually each should have a compass. If students are in teams one compass per team.
5. Line maps about 20 meters away for each team or student. The maps should have a drawn out course.
6. Students are to run down take the compass bearing of any point A to point B designated by the teacher. Run back and point in the direction you would need to go to find that control.

**Terms:**

**Compass bearing:** Using the compass to follow a directional line.

**Cue:** Red Fred in the shed.

**Activity 4:** Learning about the map and how to read it. See attached map 3 and 4. We will then look at the course on the map to learn how they are set up and what they mean.

1. Go over the symbols on the map. Talk about what the symbols represent and how they could be different on different maps.
2. Talk about how a course looks when drawn on the map. Talk about the symbol for start and finish.

**Activity 5:** Three orienteering skills will be presented and practiced. We will start with the attack point skill and catching feature skill. See attached map 5. We will then move to route choice skill see map 3. Finally we will finish up with a memory relay, working on map memory skills.

**Terms:**

**Attackpoint:** Choosing a feature or obvious point of reference as a help to find a control.

**Catching feature:** Coming towards a control so that if you go past it there will be a larger obvious feature to catch you and help you reorient.

**Route choice:** Finding the optimal route from point to point.

**Activity 6:** Completing a simple course in the room. See attached map 6.

1. Set up a course that works on the skill you have been practicing.
2. Set up course legs that have attackpoints, multiple route choices, and catching features.
3. Give students staggered starts. Have them work in groups or individually.

**Biographical Sketch:**

My name is Erin Schirm, I am in my final undergraduate semester at Syracuse University studying Physical education. I started competitive orienteering when I was in 7th grade. Since then I have been on two national championship middle school and high school team and competed for the US at the junior world champs. Feel free to contact me about any questions you have regarding the presentation or about orienteering.

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