

Orienteering (Grades 5-12)



Purpose

To introduce the students to Orienteering and basic navigation.

Objectives

1. To understand the basics of map reading
2. To understand the basics of compass use
3. To understand the basics of sport orienteering

Method

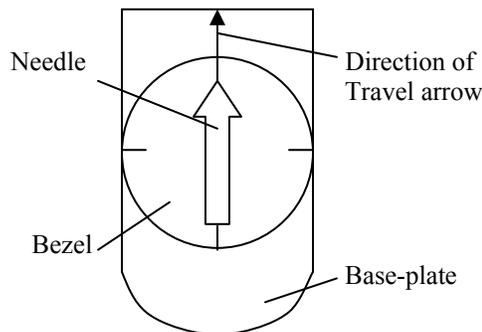
Introductions

- Introduce yourself
- Introduce the map
 - 4 things on every good map
 - Title
 - Compass/North arrow
 - Legend
 - Scale
 - Types of maps
 - Road
 - Topographical
 - Charts (ocean/water)
 - Site Specific
 - Maps activity
 - Beforehand:
 - Draw a map of the room lightly in pencil on a piece of flipchart paper
 - Have a couple of different colored markers on hand
 - During:
 - Discuss with the students what would be on a map of the room
 - "Draw" the map as the students tell you what to add
 - Make sure you include the necessary components
 - Once the map is drawn
 - Throw the map down on the floor in some sort of random position (not oriented)
 - Talk about how a map doesn't make sense unless it is oriented to the real world, orient it accordingly
 - Topographical lines
 - Hand demo
 - Draw dots on your knuckles
 - Draw larger and larger circles around the dots, make sure the circles never cross
 - Discuss how the circles are what the map would look like, make a fist, this is what the terrain would look like
 - Discuss what the lines mean...
 - If they are close together?
 - If they are far apart?
 - If they make an arrow?

- Orienting the map
 - Using the features
 - If I know I am here, and I can see this thing over there, how is the map oriented?
 - Thumbing along
 - Use your thumb to keep track of where you are
 - Using the north arrow
 - If I have a compass I can use it to find north and orient the map, speaking of a compass...

Introduce the compass

- Important parts of a compass



- Basics of a compass
 - Red end of needle points to magnetic North
 - Needle must be “in bed” for the bearing (number in degrees) to be accurate
 - Bezel turns to the desired bearing
 - Direction of travel arrow points to the bearing if the needle is “in bed”
- To use a Compass
 - Turn the bezel to the desired bearing
 - Hold the compass flat with the Direction of Travel arrow facing away from your belly button (in your direction of travel) and turn yourself around until the needle is “in bed”
 - Pick an object in the direction of travel and pace towards that object
 - Practice shooting bearings, have students turn to face the bearing so you can see they get it
 - A pace consists of two steps, count every time one foot (i.e. right foot) hits the ground
- Compass activity
 - Drop a marker, (i.e. coin, pen) and then shoot a series of bearings that add up to 360° (360°/3=120° so 120°, 240°, 360°) pacing evenly (say 10 paces). Students should end up on their marker.

Putting it together

- To use a Compass with a map (beginner)
 - Turn the bezel to North
 - Line the edge of the base-plate up with the North-South lines on the map
 - Rotate the whole map and compass together until the needle is “in bed”
- To use a Compass with a map (intermediate)
 - Turn the bezel to the desired bearing
 - Line up the grid lines within the Bezel with the North-South grid lines on the map

- Rotate the whole map and compass together until the needle is “in bed”
 - To use a Compass with a map (advanced)
 - Calculate the angle of declination by looking for the angle and calculating the changes over time (should be listed on the map)
 - Add that angle to the bearing you are attempting to travel and then turn the bezel to that bearing
 - Line up the grid lines within the Bezel with the North-South grid lines on the map
 - Rotate the whole map and compass together until the needle is “in bed”
- Sport Orienteering
 - Divide the class up into groups, larger groups for younger kids, for K-3 try to send an adult with each group, for high school you might try pairs or singles depending on how you feel about the group
 - Make sure each group has a watch and is aware of the end time, let them know you will use the bell to signal the end of the activity
 - Give each student a map and one pencil per group (for K-3 give it to the adult)
 - Show them an example of the control and what they are to write down
 - Tell them they can go to the controls in any order
 - Send them on their way
 - Upon return talk about what was hard, what was fun, let them tell their stories