

# Orienteering

## Class Overview

1. Introduction
  - a. What is orienteering?
  - b. How many of you have used a compass before? What about a map?
2. Progression of Activities
  - a. How to Use a Compass
  - b. Shape Game
  - c. Orienteering Course
3. Learning Standards Addressed
  - a. 4.A.2b , 4.A.2c , 4.A.3a , 4.A.3d 4.B.2b
  - b. 13.B.2a
  - c. 17.A.2b , 17.A.3a
4. Vocabulary
  - a. Orienteering: The use of a map and compass to find one's way through unfamiliar territory.
5. Wrap Up
  - a. How many groups were able to find all the posts?
  - b. What is the rhyme we have been using to remember how to use the compass?
  - c. How many people feel confident with their compass skills?

# How to Use a Compass

**Objective:** Students will learn all the different parts of the compass, as well as how to use the compass properly.

**Location:** Anywhere

**Time:** 20 to 30 minutes

**Materials:** Big compass, Box of compasses

**Background Info:** Learning how to use a compass is a relatively easy skill that can help you navigate in any area. Each compass is a little bit different, but the basics of the activity stay the same, and it is a skill that you can use for the rest of your life.

## Procedure:

1. Use the large demonstration compass and go over the different parts of the compass. Make sure that the students can point out each part to you on their compass before moving on.

### Compass parts:

**BASE PLATE:** Clear plastic foundation of the compass.

**HOUSING:** The moveable circular dial mounted to the base. There are 360° around the outside of the dial. The white marks represent 2° or 5°. Have the students figure out the value of each white tick mark on their compasses.

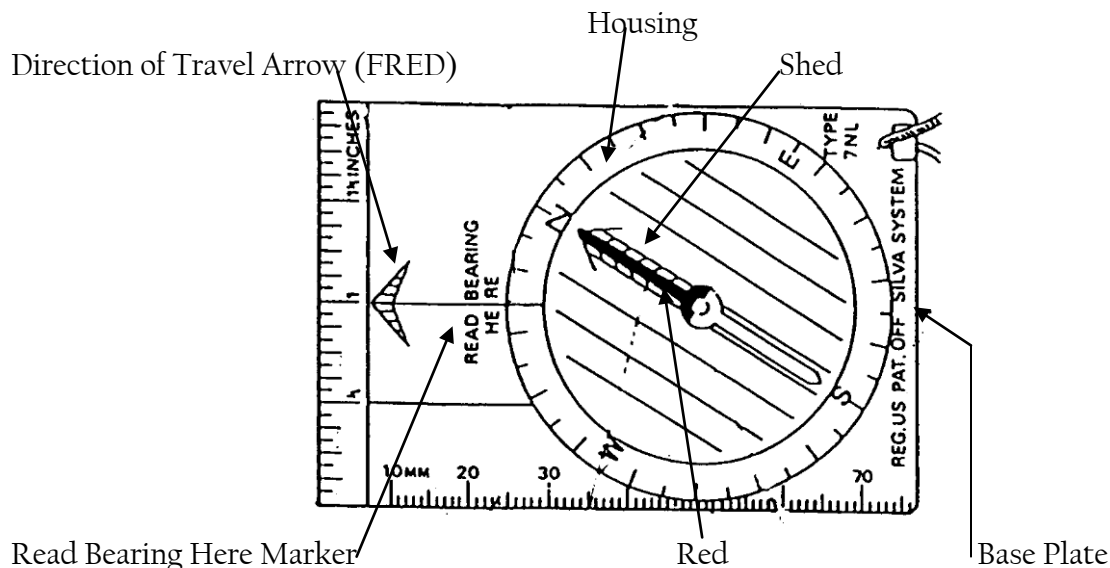
**READ BEARING HERE MARKER:** When setting the compass, the dial is turned until the desired degree lines up with this mark.

**RED:** The half of the floating needle in the middle of the housing that always points to magnetic north and is red in color.

**SHED:** Outlined shape of an arrow located in the center of the compass housing.

The Shed and Red will overlap in the final step of setting a compass.

**DIRECTION OF TRAVEL ARROW (FRED):** The arrow that points away from the housing (dial) to the ruler. Once your compass is correctly set, this tells you which direction you will travel. This arrow is called FRED.



2. After the students are comfortable with all the parts of the compass, start to teach them how to use it.
3. Direct the students to hold their compass flat (parallel to the ground) with Fred pointing away from the belly button or chest. Fred should always be pointing away from your body.
4. Once Fred is positioned correctly, the students need to turn the dial to set a bearing. For instance, to go east, the students need to set their bearing to E or 90°. To do this, they must turn their dial (housing) until 90 ° is lined up perfectly with the Read Bearing Here marker.
5. Now that the bearing is set, students must keep their compass nice and flat with FRED pointing away from them, and slowly turn their whole body until RED is in the SHED. You cannot just turn the compass or turn at your waist to do this. Slowly turn your whole body until RED is in the SHED. Never let the students turn their compass; it should always be held so FRED is coming directly out of their belly.
6. Once RED is in the SHED, you follow FRED. Never follow RED by itself (you will go north) or the white arrow (you will go south). Always walk where FRED is pointing.
7. The basic rhyme to follow is: Put RED in the SHED and follow FRED.
8. Give the students a few bearings to practice with. Have them put RED in the SHED, and instead of walking, have each student point in the direction they would travel. This will help you figure out if there are any students who need a little more help.

#### Wrap Up:

1. Ask the students how many people feel comfortable using the compass.
2. Review the parts of the compass and the basic steps to using it.

# Shapes Game

**Objective:** Students will practice their compass skills before heading out to the orienteering course by making various shapes.

**Location:** A large flat area

**Time:** 15-20 minutes

**Materials:** Set of “shapes” cards & key, 20 or so place markers such as sticks or flags (optional)

**Key Vocabulary:** Parts of a compass (base plate, housing, read bearing here marker, red magnetic needle, orienting arrow, direction of travel arrow), Pacing, Bearing, Degrees

**Background Info:** Once you have mastered the skill of using a compass it will be important to practice your skill before going to the orienteering course. In this activity it will be important to use your compass correctly in order to walk in the correct direction.

## Procedure:

1. Before starting this activity you need to make sure the students have a good idea of the basics of how to use a compass to find a bearing. They should also know proper pacing technique.
2. Split the students into groups with 3-4 students in each group
3. Have the groups spread out and place a marker at their starting location.
4. Explain to the students that, in this activity, they will get a chance put their compass skills to the test. You will be giving them a card with bearings to set their dial to. Then, they will put RED in the SHED and follow FRED for the distance specified on the card in a straight line. At the end of each step they should place another marker in the ground. Once they are done with their last step, they should stand in the center of their shape until they get further directions. Meanwhile they can look over the shape they made and try to figure out what shape it is. The cards are color coded so you can tell the kids what shape they “should” have made.
5. One tip is that if they did things correctly they should end up at the point they started from.
6. If time allows you can give the groups new cards and have them make new shapes.
7. Alternately you can have the students do this all at the same time individually by reading the directions off a card. This way they all mark out the same shape. In this case you probably won't have enough markers for each student to mark every point though. Just have the students mark their starting point if you do it this way.

## Wrap Up:

1. How many students ended up exactly where they started? How many were close?
2. What shape did you make? Did you make the shape you were supposed to?
3. Why is it important to walk in a straight line when using a compass?

## Orienteering Course

**Objective:** Students will use their compass skills to navigate through an orienteering course.

**Location:** South Field

**Time:** 30-45 minutes

**Materials:** Whistle; 3, 4, or 5 post course bag

**Background Info:** In this activity, groups will need to use their compasses to navigate through a pre-determined orienteering course. It will be important that the groups stay together and use the skills they have learned in the beginning of the class.

### Procedure:

1. If not already there, walk the students out to South field and split them into groups of 2 to 3.
2. In this activity, they will be working in groups to navigate through the 3, 4, or 5 post course. The course you choose will be determined by the amount of time left in the class as well as the skill level of the students.
3. Each group will receive a map (which has the bearings and directions they will be following on the back) and a punch card.
4. Each group will be heading to the posts in a different order and must stay together at all times. They need to follow the bearings in the order given, not other groups.
5. Groups will be looking for large, circular posts painted orange and white. Each post will also have the letter it represents carved into the top of the post and a puncher attached to it. Each puncher has a different design, so students cannot try to cheat and just punch their card numerous times.
6. On the back of the map, there is a direction sheet that has the start location, the bearing they need to set their compass to, and what post they should end up at. Once they get to the correct post, they will punch their sheet and take the next direction. They need to follow the sheet from top to bottom, even if they have passed a different post.
7. Each group will start at the barrel for their first bearing. After that, they will take each bearing from the post they just ended with.
8. Groups will need to cut through the tall grass and forest to get to the post. They will not succeed if they just stick to the paths. They also need to take the bearings standing right next to the barrel or post. If they are a few feet away, they will not be on the correct bearing when they begin to travel.
9. If a group is struggling, have them go back to their previous post to try their bearing again.
10. The activity will end once all groups have made it back to the start or when the whistle is blown.

### Wrap Up:

1. How many groups were successful in finding the posts?
2. Which was the hardest post to find? Why?
3. How many people feel comfortable in using a compass? Why or why not?