



# Circle Compass Course

## Program Purpose

The purpose of this course is to introduce compass work to students in a team setting.

## Length of Program

1 Hour

## Ages

Grades 3<sup>rd</sup>-5<sup>th</sup>

## Maximum Number of Participants 18

## Objectives

After completion of this course students will be able to:

- Name the parts of a compass.
- Describe how the parts of a compass are used.
- Work together to complete an introductory level orienteering course.

## Preparation

Before the class arrives:

- Locate the Circle Compass Course Box.
- Make sure there are enough course sheets for all the students.
- Make sure there are sharpened pencils in the box.

## Basic Outline

- I. Compass Parts. (5 min)
- II. Walk a Strait Mile. (10 min)
- III. Square Course. (10 min)
- IV. Circle Compass Intro. (5 min)
- V. Circle Compass Course. (25 min)
- VI. Clean Up. (5 min)

## Materials

- 18 Compasses
- Large Teaching Compass
- 9 Visors with bandannas attached Course Slips
- 9 Overhead markers
- Course Key
- 9 Clip Boards

## Compass

Introduce yourself to the students and give them a general idea of what the class will contain. Have the students form a semi-circle and pass out the compasses.

- First, demonstrate the proper way to hold a compass. This should be done with the large demonstration compass. To properly hold a compass you should have the compass level in your hand a few inches from your body. The that-a-way arrow should be facing the same direction as your nose and the smart chord should be attached to the side closest to your body. It is important to make sure all students are holding the compass level or the needle will not move properly.
- Second, explain the that-a-way arrow and its purpose. The that-a-way arrow is the painted on arrow that is located on the plastic plate in front of the dial. This is the arrow that you will follow every time to take a bearing. Make sure they know this is the arrow that will be pointing the correct direction when all of the following steps are done correctly.
- Third, Point out Red (the north arrow) and explain that it is drawn magnetically to the north. It is a very common mistake to follow red and get lost so make sure you emphasize that red is a liar. Ask the

students which direction red will take them and is that is the direction they always want to walk. You cannot emphasize enough that red is pointing the wrong direction 99% of the time.

- Fourth, show the students where the shed is. Shed is located inside of the dial. Shed is painted on and only moves when the dial is turned. It can be located easily by looking at the dial and finding the N. Shed is always pointing at the N. Shed and Red are friends and always want to be together so you should turn you compass so Red and Shed are together. This means the north arrow should be directly on top of Shed.
- Fifth, show the students the dial. Ask the students how many degrees are in a circle. Explain that there are 360 degrees in a circle and 360 degrees on your compass. The students should know that each white dash line on their dial represents two degrees so the odd degrees are located in between the even degrees and do not have a white dashed line.
- Sixth, hold up your demonstration compass and point out the bearing notch. This is a small white line under the dial. It can be found by looking at the that-a-way arrow and following it back to the dial. The bearing notch never moves and is always directly lined up with the that-a-way arrow.

Now that the students know the parts of the compass you can show them how to use them to set a bearing.

*To set a bearing:*

1. Turn your compass until 200 degrees is directly on top of the bearing notch. Walk around to each student to check.
2. Have the students all holding their compass in the proper form.
3. All students should now turn their body until red is on top of Shed. Make sure

the students do not turn the compass just their body. It can help to tell them their nose should always be pointing in the same direction as the that-a-way arrow and their neck cannot turn.

4. Red is now on top of Shed so ask the students to point in the direction they should walk. Go around to all students that are pointing the wrong direction. The most common problem here will be that they are pointing north so just reiterate that red is a liar and show them the that-a-way arrow again so everyone is pointing the same direction.

You should do this until all of the students are confident in setting a bearing. This will probably take three to five tries.

### **Walk a Strait Mile**

This activity is used to show students that they need to keep their head up and not just stare at their compass.

Professional foresters use target trees. A target tree is an object (usually a tree) that is stationary and easily identified located exactly in the direction you are traveling. Without a target tree you are compelled to walk to the right and your compass is not made to compensate for this natural draw to the right.

To demonstrate this point have the students get a partner. The students should be lined up facing each other with about fifty yards between them (the sandlot is the safest place to do this). Have one of the partners point their that-a-way arrow at their partner. Now have them turn the dial until Red is on top of Shed. Have them read the bearing and make sure all of the students have about the same bearing to make sure everyone know what they are doing. The student who set the bearing should be given a bed sheet and instructed to put it over their head and

compass. They will now walk forward using only their compass until they reach the other set of students and see how close they came to their partner. It probably won't be very close. For safety have all of the adults in the group go out and help to avoid collisions between the students with a sheet over their head. Have each partner do this once.

### **Square Course**

To do the square course: have the students mark a spot on the ground. They can put a hat on the ground or make an X with their foot it doesn't matter as long as they can identify it later. Have the students stand directly on their spot and instruct them to take five steps at any bearing you choose. Now add 90 degrees to that bearing and have them take another five steps. Do this two more times and the students should be standing on their original spots again. Try the course three or four times making the square larger and larger each time to make it more challenging.

### *Examples*

Bearings

100,190,280,10

50,140,230,320

90,180,270,360

250,340,70,160

25,115,205,295

160,250,340,70

310,40,130,220

### **Circle Compass Course Intro**

Show the students the course sheets and point out any of the posts you can see. For the course sheets, you should first make sure everyone is clear where the starting point is located on the course sheet. The starting letter is located in the upper right hand corner of the sheet. When they are clear on the starting point it is important to make it clear what exactly they should do. From their starting point they need to set the first

bearing and follow that bearing until they reach another post. When they reach that post they should write the letter on the cone next to the first bearing. Now set the second bearing and your starting point is the second post. This is repeated for all of the bearings.

### **Circle Compass Course.**

The circle compass course is a series of posts set up in a circle around a central point. Each post has a letter on it and the students will be going from post to post according to the bearing that is on their course sheet and writing down the letter they find on each post.

For the actual course you will start out by helping the groups find any posts that they can't find. If you see a group having trouble it is easier to help them in the beginning than after they complete the course. The answer key is in the circle compass course box (which should be brought out with you) and is used to see if the student did the course correctly. Have the groups do several courses until the time is up.

### **Wrap Up**

Ask for any questions or comments from the students. Talk about careers that will use a compass and also recreational things that they do that incorporate compasses

### **Clean Up**

Make sure all the course sheets have been collected so they don't end up as litter. Make sure you have all the compasses, pencils, and clipboards. The CCC box should be returned to the workroom.

**References**

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