

# Camp Conewago Orienteering Course

## Scout Instructions

Orienteering is a sport using a map and compass to find orange and white markers along a course. These markers are called control points. The map is your main tool. It has a vast amount of information that can help you find the best route between control points. The compass is used to orient the map, and sometimes guide you along a bearing. Smart orienteers often do not follow direct bearings between control points. They will use the map to find the easiest and fastest path – often mostly along a road or trail.

Each control point found in the course will correspond to a numbered point printed on a map. This control point mark on the map is a small black point with a number listed to the right of it.

## Preparation for the Course and Skills Review

### Determine Pace for Measuring Distance

1) First, determine your pace for 100 feet so you can estimate distance traveled along the course. Layout a 100-foot length using a tape measure and mark each end of that length. If you do not have a tape measure, a 100-foot length is the distance between the flag pole and the front door of the 6<sup>th</sup> Roth Rock from the Lodge.

2) Pace between these markers at least 3 times at a natural stride, stepping off with your left foot and counting each time your right foot touches the ground (a “pace” is 2 steps). Calculate the length of your average pace with the help of the table below:

Paces in 100 ft:	15	16	17	18	19	20	21	22	23	24	25
Feet / pace	6.66	6.25	5.88	5.55	5.26	5.00	4.76	4.55	4.35	4.17	4.00

### Map and Compass Skills Review

3) Parts of a compass

4) Reading a Map

Directions

Distances

Scale – What is the scale for this map? \_\_\_\_\_

Dates

Colors

Grids

5) Orienting a Map

- Method: Use the visual method or “look around” method.
- Method: Use a compass

6) Take a Bearing on a landmark with a compass

Begin by standing outside the porch railing on the North-East corner of the Camp Conewago Lodge. Using your compass take a bearing from this spot you are standing to the flag pole.

- What bearing (in degrees) would you take to get to the flag pole? \_\_\_\_\_ degrees
- Take the same bearing using only the oriented map and a compass  
What is the bearing based on the map & compass? \_\_\_\_\_ degrees

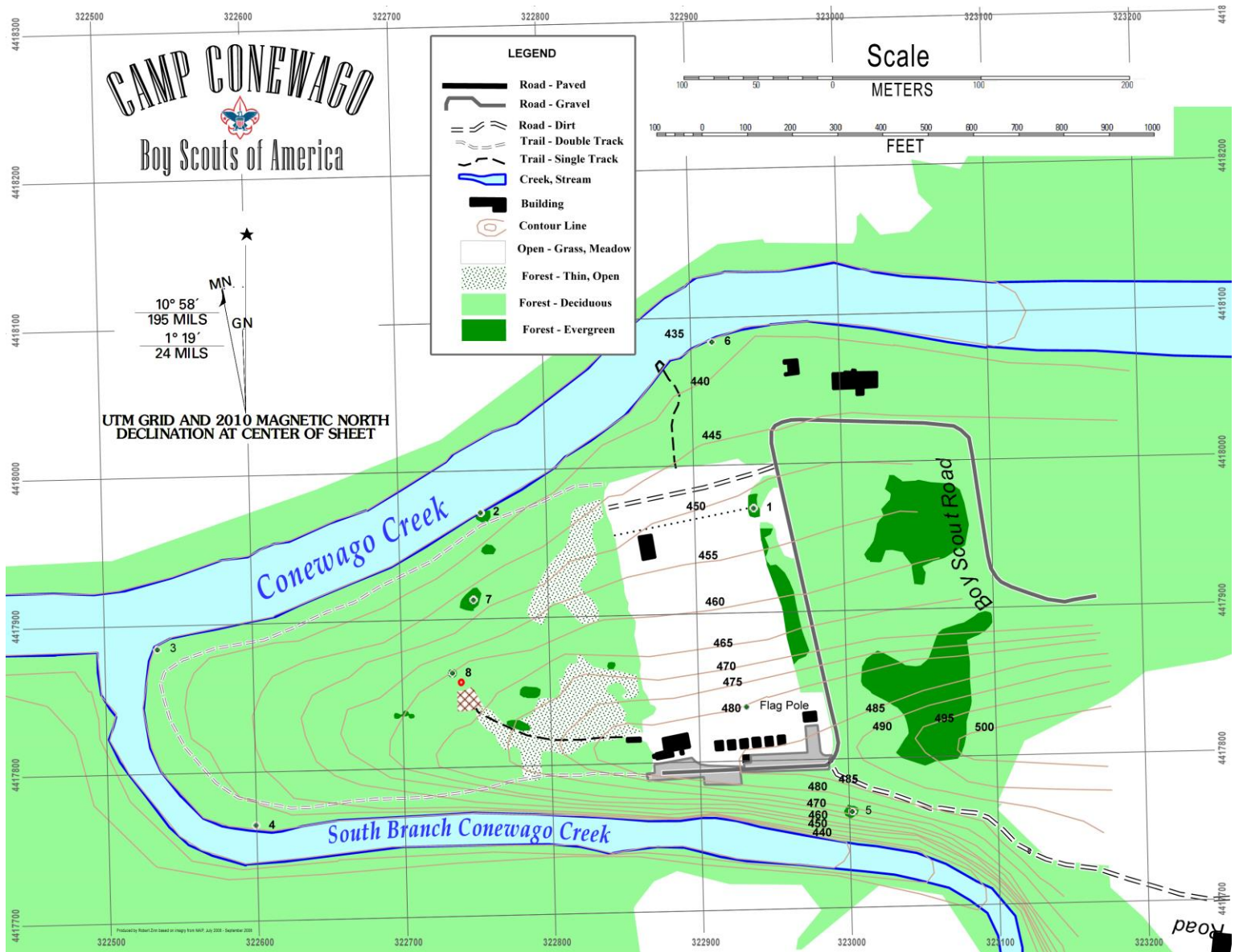
7) Measuring Distance – (continued from item 5)

- Using the map’s distance scale, determine the distance from your position to the flag pole. \_\_\_\_\_ feet/meters
- Follow the bearing and pace off the distance to the flag pole. What is the distance based on your pace? \_\_\_\_\_ feet/meters

8) Follow a Bearing

Begin by standing at the flag pole. Using your compass follow a bearing 208.54 degrees MN for a distance of 97.98 feet.

- Describe the location of the final destination after following the bearing for the specified distance? \_\_\_\_\_



## The Orienteering Course

Review the Camp Conewago map and locate the control points marked on the map. The control points mark on the map is a small black point with a number listed to the right of it.

While navigating the course in the field, the control point will be identified with an orange and white bag.

The course begins at the Flag Pole. The flag pole is indicated on the map.

If there are multiple teams, then identify the individuals in each team and they will follow the course control points in a different order as indicated below.

- Control Point markers are triangular or square, orange and white, and hung from a tree or mounted in some other fashion. Inside each control point is a letter. Using your map and compass, find all of the control points in the order indicated below based on the team. If you mostly use your map, you will find that the easiest route to travel between control points is not always along the direct compass bearing. The goal is to visit each control point in the correct order specified for the team you have been assigned. At each control point, look inside and write down the letter here. Do not take the number from the control point:

TEAM A	TEAM B	TEAM C
Control Point 1 - _____	Control Point 4 - _____	Control Point 5 - _____
Control Point 2 - _____	Control Point 8 - _____	Control Point 1 - _____
Control Point 3 - _____	Control Point 6 - _____ **	Control Point 2 - _____
Control Point 4 - _____	See below for additional Instructions	Control Point 3 - _____
Control Point 5 - _____	Control Point 1 - _____	Control Point 4 - _____
Control Point 6 - _____ **	Control Point 2 - _____	Control Point 7 - _____
See below for additional Instructions	Control Point 3 - _____	Control Point 8 - _____
Control Point 7 - _____	Control Point 7 - _____	Control Point 6 - _____ **
Control Point 8 - _____	Control Point 5 - _____	See below for additional Instructions

\*\* At control point 6, use skills learned in the Scout handbook to determine the width of the stream. Answer: \_\_\_\_\_

- Return to the Camp Conewago Lodge.
- Using any of the methods shown in your Boy Scout Handbook and with the help of a buddy, measure the height of the flag pole.
  - Mark the flag pole height here: \_\_\_\_\_ feet.
- Bring this sheet to your leader to show that you have completed the course. Use the Secret Key below to translate a message out of the control point letters.

### Secret Key

A | B | C | D | E | F | G | H | I | J | K | L | M

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N | O | P | Q | R | S | T | U | V | W | X | Y | Z

(letter above equals below, and vice versa)

## Camp Conewago Orienteering Course

### ***Leader Instructions***

Completing this activity meets the orienteering requirement for First Class. The course is one mile long and requires measuring both the height of a flagpole and the distance between two markers. A *prepared* scout can do the activity in about one hour.

This course should NOT be a scout's first map and compass activity.

You must first teach how to

- read a topographical map,
- how to orient a map,
- use a compass to take a bearing
- use a compass to follow a bearing,
- how to measure distances

All of this is found in the Scout Handbook, but you will need some hands-on teaching for a scout to master. This course should be a fun and challenging way for a scout to test his new skills.

Each scout needs BOTH the course map and Scout instructions (which serves as an answer sheet).

Print the map and instructions on opposite sides of a sheet of paper and put inside a gallon zip-top bag for durability. Scouts will also need a pencil, a map compass, and their Scout Handbook.

Start at the flag pole. First have each boy read the "Scout instructions" fully. Confirm that each has all the required materials. Buddy up the scouts for safety but insist that they each complete their own answer sheet. (Sending a more senior scout as a buddy can work if the older boy will let the younger scout work the course by himself.)

Reinforce that part of their challenge is to use the map to find the easiest way between markers – often NOT along the direct bearing to the next marker. Ask the boys to find the cardinal points on their map, then on the ground, to demonstrate the detail and accuracy of the map.

They set off independently to complete the activity at this point.