

Orienteering

1. Explain why a compass works.
2. Identify the 8 points on a compass.
3. Demonstrated an ability to use a compass to determine direction.
4. Demonstrate an ability to find North using the North Star.
5. Explain how to determine direction without a compass.
6. Complete an orientation course.

Helps

1. Planet Earth has a magnetic field that runs in a north-south orientation due to movement of molten rock in the magma as it is affected by the planet's rotation.
2. The compass identifies 4 primary directions (North, South, East, and West) and 4 additional intermediate directions (Northeast, Southeast, Southwest, Northwest).
3. Have the Adventurers practice using a compass. Using a compass to determine direction:
 - A. Hold the compass level so that the arrow rotates freely. Once the arrow stops moving the arrow is aligned north-south. Generally, the red side of the arrow (sometimes this may be a different color) points north.
 - B. Facing North, East will be 90 degrees to the right, West will be 90 degrees to the left and South will be directly behind you.
 - C. With the arrow aligned with the north-south line, use line of site from your position toward the direction you wish to head and look at the compass to determine the direction.
4. North can be determined by finding the North Star (Polaris). Find the North Star by first finding the Big Dipper. Find the pointer stars that make up the edge of the 'dipper' opposite the 'handle'. Use these two stars to draw an imaginary line to the North Star.
5. To determine direction without a compass:
 - A. A magnetized sewing needle will orient itself north-south when placed on a small piece of cork in a pan of water.
 - B. A lodestone will orient itself north-south when suspended on a string or placed on a piece of cork in a pan of water.
 - C. A line drawn between the start point of a post's shadow and the end point of the post's shadow after 30 minutes of movement will give an approximate east-west line.
6. The course length would depend on the age of the Adventurers you are working with but even for a young group you would want to have them follow a course to several stops. *Orienteering: The sport of Navigating with Map and Compass* by Steven Boga and *Map and Compass* by Cliff

Jacobson are books on this subject that will give you more information than is included here. Also, check online and your library.