

FACTivity

Time Needed:

Two class periods. The first day will teach you how to use a compass. The second day will be a field exercise.

Materials Needed:

- Compass (One for each student. If there are not enough compasses for each student, work in groups of 4–5.)
- 4–5 items for scavenger hunt

In this FACTivity, you will complete a scavenger hunt by using a compass to locate hidden objects. Using a compass and map to navigate is called orienteering. Compasses are often easier to obtain than Global Positioning System (GPS) devices, and using a compass can be a fun way to learn about navigation. This activity includes a basic introduction on how to use a compass to navigate.

Day One:

First, your teacher will start the FACTivity by asking you and the other students about your knowledge of compasses. Your teacher may ask students to provide examples of when compasses are used (e.g., hiking, bird watching, navigating ships, military use, etc.). After this brief discussion, your teacher will distribute the compasses to the students.

As a class, review the parts of a compass. Every compass has four cardinal directions: North (N), South (S), East (E), and West (W). Some compasses also have the intermediate directions marked: Northeast (NE), Northwest (NW), Southeast (SE), and Southwest (SW).

Use the compass image to review the parts of the compass.

A. Baseplate: The rectangular bottom.

B. Compass Housing: The raised, circular portion of the compass. The numbers on the compass housing represent the 360 degrees of a circle. Note: On some compasses you will see that the compass housing rotates. If you have a compass like this then you can find out more about how to use this feature by searching on the Internet or finding a book on orienteering.

C. Compass Needle: This is the needle that moves inside the compass. In most compasses, one half of the arrow is red, and one half of the arrow is white. The red end of the compass needle always points to magnetic north. Magnetic north is where the North Pole is.

D. Direction of Travel Arrow: This arrow is on the base and often says “Read Bearing Here.” This arrow points in the direction that you want to travel after orienting the compass. A good way for students to remember this arrow is that it should always be pointing in the same direction as their nose and toes.

E. Orienting Arrow: This arrow is fixed to the bottom of the compass housing and does not move. It often is marked with stripes. This arrow is lined up with the compass needle after a travel direction (or compass bearing) has been set.

After you are familiar with the parts of a compass, use the compass to find the four cardinal directions. Start by finding North. Hold the compass flat in the palm of your hand and turn your whole body until the red end of the compass needle is inside of the orienting arrow. The compass is now oriented in the North direction. Practice walking a few steps in this direction while keeping the red compass needle in the orienting arrow. Practice finding and moving in the other cardinal directions until you are comfortable using a compass.



Day Two:

Your teacher will create a mini scavenger hunt in your schoolyard or classroom. Each hidden item represents a checkpoint. Your teacher should give you directions on how to navigate to the first checkpoint at the beginning of class.

For example:

1. Starting at the classroom door, walk approximately five steps into the classroom.
2. Stop and turn West. Continue West for approximately four steps.
3. Stop and turn South. Walk South for another four steps.
4. Stop and look East. Find the bookshelf.
5. Your first object is located on the top shelf.



Directions on how to navigate to the second item should be hidden with the first item. The second item has directions on how to navigate to the third item, and so on. Have the students work in teams to find all scavenger hunt items.

Extension:

Your teacher will create a map of the schoolyard, including all buildings, trees, bushes, playground equipment, etc. The map will include symbols to mark a start and finish spot and various checkpoints. Your teacher will hide an object at each checkpoint, you will need to find the hidden items by using the map and compass.

Back to the Future Outside!

Think for a minute about the activities and things you like to do outside. How do you think these activities are different from what your parents or caregivers did outside when they were your age? Tonight when you go home, ask your parents or caregivers what they liked to do outside when they were your age. Write a short paragraph describing what your parent or caregiver liked to do at your age and what you like to do now. In class the next day, discuss what different students discovered. What are the similarities and differences? Discuss why you think there may be these similarities and differences.