



NAVIGATION TOOLS: Understanding Geographic Positions

ASK

What is a geographic object and how can you determine its geographic position?

In this section, you will find geographic objects and discover how to determine their geographic positions.

INVESTIGATE

Everything you see on the Earth's surface has a position. Look outside and you will see a variety of geographic objects that have a geographic position. Anything that has a position on the Earth's surface is called a geographic object. A geographic object can be as small as a blade of grass or as large as a whole continent. The geographic position or location of a geographic object can be defined in a variety of ways.

A geographic position is the location of the object on the Earth's surface with respect to a known origin. Geographic positions may be described by a specific point of reference such as "across from the courthouse" or "next to the highway." Street addresses are a more precise way to define a geographic location. By using a map you can find a street address in an area that you have never visited. Using points of reference require some prior knowledge of the area and sometimes a street address is not clear enough or not available. In order to be most accurate and not depend on prior knowledge, positions can be determined by a standard measurement system such as latitude and longitude coordinates.

Technologies for measuring the position, distance, direction, and other aspects of geography have evolved with the evolution of human civilization. Our early ancestors depended on basic human senses (sight, hearing, taste, smell, and touch) for traveling and locating resources. They learned to use the sun and stars for navigation. Later, humans developed more advanced technology for navigation such as rope, sticks, the compass, hand-drawn maps, and printed maps. Now we have digital devices such as GPS receivers for acquiring and using positional information (See What is GPS? activity for more information).

We cannot map every geographic object, so the objects we map depend on our needs and interests. These may vary from person to person or community to community.

CREATE

1. Go outside and consciously observe the world around you.
2. Identify 5 -10 geographic objects that interest you.
3. Study the characteristics of each object.
4. Using a pencil or pen and paper, create a table with two columns. In the first column, list the geographic object. In the second column, list the object's characteristics.
5. With a friend, family member, or group member, explain why these objects interested you and describe the characteristics of each object.
6. Think of ways you can find and record the geographic position of the objects you listed.

DISCUSS

- What did you learn about geographic objects?
- Why are accurate geographic positions important?

REFLECT

- Who may be interested in the position of each geographic object you chose?
- How can understanding geographic objects and positions help you? Help your community?



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