Beach Ball Globe

What you need

- 1 inflated beach ball or a similar round object
- 1 black permanent marker

Preparation

The instructions outlined below describe how to create a globe using a beach ball or other round object.

Step 1. Gather materials. Make sure the beach ball, or whatever round object you are using, is inflated.

Step 2. Locate the top and bottoms of the beach ball. The top represents the north pole, and the bottom represents the south pole. Label these areas. This will help you determine the northern and southern hemispheres.

Step 3. Locate the center of the beach ball. Draw a line of latitude in the center. This line represents the equator or 0° latitude.

Step 4. Locate an area on the beach ball to represent 0° longitude. This line is the prime meridian.

Step 5. Draw lines of latitude above and below the equator using the following intervals: 15°, 30°, 45°, 60°, 75°, and 90°. Lines of latitude above the equator are north of that line. Label them N. Lines of latitude below the equator are south of that line. Label them S.

Step 6. Draw lines of longitude to the right and left of the prime meridian in intervals of 10° in both directions until you mark 180°. Lines of longitude to the right of the prime meridian are east of that line. Label them E. Lines of longitude to the left of the prime meridian are west of the line. Label them W.
What to do

Use the lines of latitude and longitude drawn on the globe to determine and mark the following coordinates using a marker:

1. 38° N, 85° W
2. 70° S, 120° W
3. 20° N, 120° E

What is happening?

Maps are wonderful tools to determine location. Locations are made more accurate by using imaginary lines called latitude and longitude. The lines that circle around the earth are lines of latitude (also called parallels since they are parallel with the equator), and the lines that circle the earth from top to bottom are called longitude (or meridians). Latitude measures north-south direction, and longitude measures west-east. These lines intersect to form a grid over the earth.

One way to remember the direction of these lines are that lines of latitude are FLAT and stretch left to right, and lines of longitude are LONG and stretch from top to bottom.

The equator is a line of latitude that is located around the center of the earth. It is 0° latitude. The prime meridian is a line of longitude that passes through Greenwich, England. It is 0° longitude.

Lines of latitude range from 0° to 90° North for locations above or north of the equator and 0° to 90° South for locations below or south of the equator. Lines of longitude range from 0° to 180° East for locations east of the prime meridian and 0° to 180° West for locations west of the prime meridian.

Answers

See the images below for the locations of the coordinates.

1. 38° N, 85° W
2. 70° S, 120° W
3. 20° N, 120° E