

How to determine direction and location of places on a map.

Activity

Imagine you are in a bustling forest in Cherangany, Kenya. You have wandered off from your camping group and are completely lost. You approach a friendly-looking local woman collecting firewood. You need to politely ask this woman for directions to your camping site, the "Cherangany Forest," located near the Cherangany Police post.

You don't speak Nandi, and the woman may have limited Kiswahili. You'll need to use clear, concise, and possibly non-verbal communication to get your point across.

How can you determine the direction and location of places on a Map?

Possible Actions

- Use gestures:
 - ☐ Mimic writing in the air to indicate you're looking for a place.
 - ☐ Point to your camp card (if you have one) or try to write the name in the sand.
 - ☐ Show a map of the area (if you have one) and point to the general location of the camp.
- Use simple English:
 - ☐ "Excuse me, Camp Cherangany.." (Say the name slowly and clearly)
 - ☐ "Cherangany Police Post ? (Point towards the general direction of the square)
 - ☐ "Help? Lost." (Use a concerned expression)
- Look for landmarks:
 - ☐ "Many trees? Many people?" (Pointing towards the general direction of the forest) "Near the snake charmers?" (If you remember seeing snake charmers near the square)
- Use a translation app: If available, use a translation app to show the woman the name of the Cherangany camp in Kiswahili.

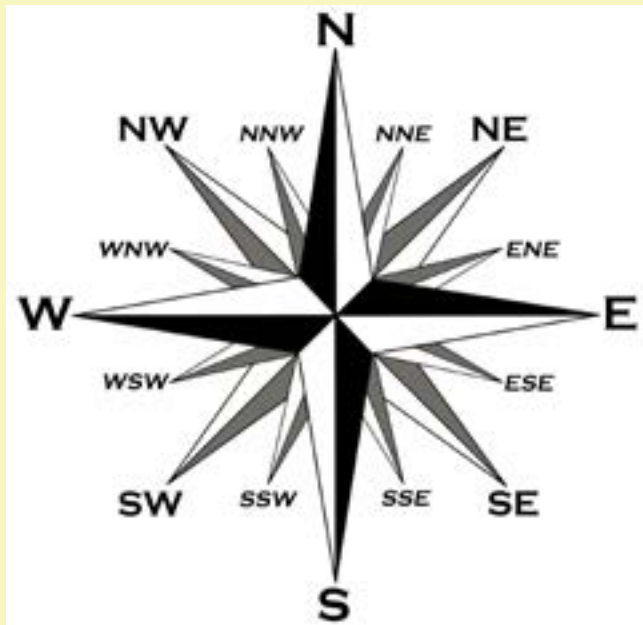
The following are major methods used to show positions of a place on a map.

- a) Use of Compass
- b) Use of latitude and longitude
- c) Using grid system
- d) Using landmarks
- e) Using bearing

Using the Compass for Direction

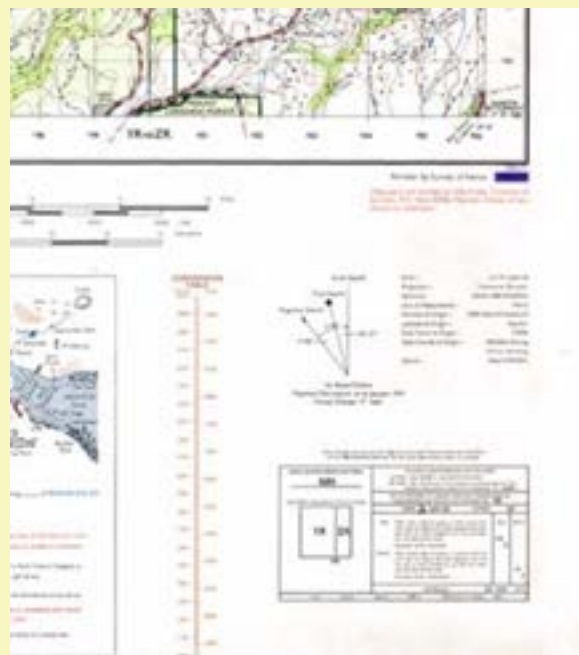
- A compass is a diagram that shows the cardinal directions (North, South, East,

West) and intermediate directions (Northeast, Northwest, Southeast, Southwest). It helps you orient the map and understand which way is which.



Steps to Determine Direction:

- **Find the Compass** : Look for the compass rose on the map. It is usually located at the top or corner of the map and shows the orientation (which way is North, South, East, and West).
- **Determine the Orientation**: Once you know which direction is North, you can easily determine other directions (South, East, and West) and the intermediate ones (e.g., Northeast, Southwest).



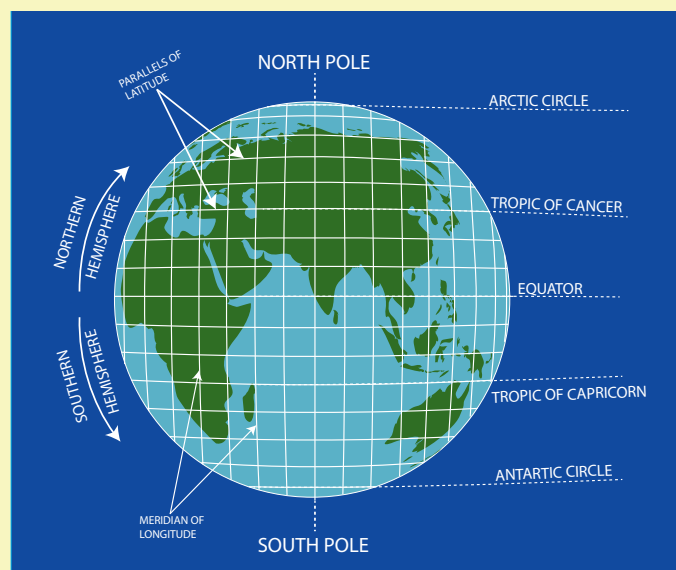
- **Use Directions for Navigation**: If you're trying to navigate, you can follow the directions indicated by the compass rose to find your way or head in a specific direction (e.g., go South-East for 10 miles).

Example:

- If the compass rose shows that North is at the top of the map, then the area at the top of the map represents the northern part of the area being mapped.
- To go to the **South**, follow the path going down towards the bottom of the map.

Using Latitude and Longitude for Location

Maps also use **latitude** and **longitude** to give exact locations on the Earth. Latitude and longitude are a global coordinate system that can pinpoint any place on the planet.



Steps to Determine Location:

- **Latitude:** Latitude lines run horizontally around the globe and are measured in degrees North or South of the **Equator** (0°). They tell you how far a place is from the equator.
 - ☐ **North Latitude** (N): If a location is **above** the Equator, its latitude will be a **positive number** (e.g., 40° N).
 - ☐ **South Latitude** (S): If a location is **below** the Equator, its latitude will be a **negative number** (e.g., 40° S).
- **Longitude:** Longitude lines run vertically around the globe, measuring the distance east or west from the **Prime Meridian** (0° longitude), which runs through Greenwich, England.

- **East Longitude (E):** If a location is **east** of the Prime Meridian, its longitude is a **positive number** (e.g., 30° E).
- **West Longitude (W):** If a location is **west** of the Prime Meridian, its longitude is a **negative number** (e.g., 30° W).

Steps to Pinpoint a Location Using Coordinates:

- **Find the Coordinates on the Map:** Check the edges of the map for the latitude and longitude values marked along the borders. The vertical lines represent **longitude**, and the horizontal lines represent **latitude**.
- **Locate the Intersection:** To find the location of a specific place, find the **latitude** (N/S) and **longitude** (E/W) of that place on the map. The point where the lines intersect will give you the exact location.

For example, if the coordinates are **40° N, 75° W**, you would find **40° North** latitude on the left side of the map and **75° West** longitude on the top or bottom of the map. The intersection point marks the location on the map.

Example:

- **Example Coordinates:** 1° S, 37° E corresponds to **Nairobi city in Kenya**.
- **To locate:** You look for 1° S on the latitude lines and 37° E on the longitude lines and find where they intersect. This will give you the location of Nairobi City on the map.

3. Using a Grid reference- A grid reference is a simple way of describing a location on the topographic maps. The grid squares are made up of vertical lines called Eastings and horizontal line called Northings.

Each Easting grid line is numbered from west to east and Northing grid line is numbered south to north.

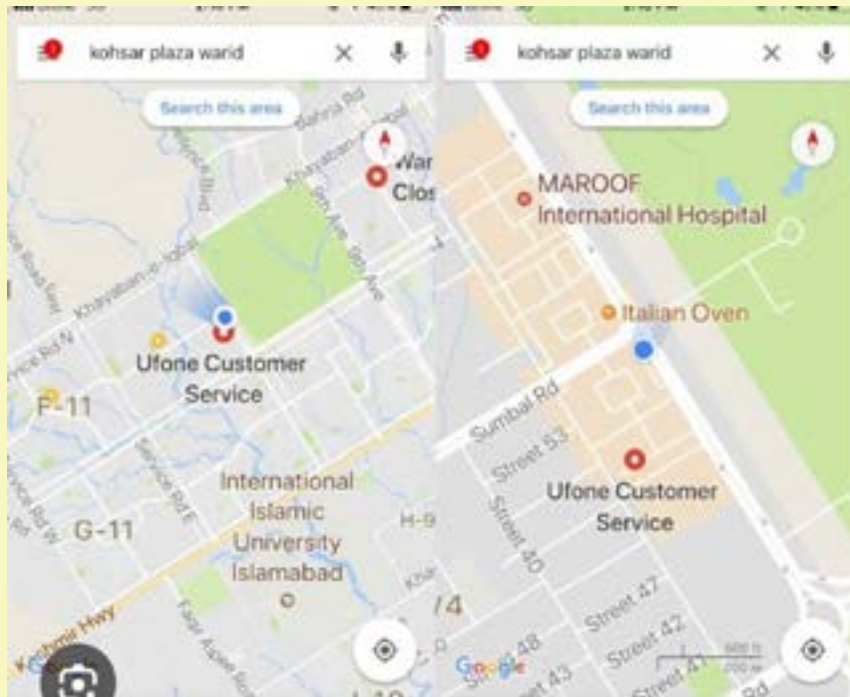


Each easting and northing is numbered on the map margin at 1 km intervals; numbers are used to find a grid reference.

A position on a topographic map is generally shown as a four- or six-figure reference. A four-figure reference will identify which grid square (1 km x 1 km) contains your location. A six-figure reference will specify your position within 100 metres in that grid square.

Using a GPS for Location

For more precise location-determining, **Global Positioning System (GPS)** devices and smartphone apps (like Google Maps) use satellite signals to provide real-time geographic locations in terms of **latitude** and **longitude**. These devices provide your **current location** as well as the direction and distance to any other place.



Steps to Use a GPS Device:

- **Turn on the GPS:** Activate a GPS-enabled device (e.g., smartphone, GPS navigator).
- **Enter a Destination:** Type the name or coordinates of the location you want to go to.
- **Follow Directions:** The GPS device will provide real-time directions to your destination, showing you the path, distance, and estimated travel time.

Using Landmarks for Direction-

In addition to using the compass or coordinates, you can often determine direction and location by using **landmarks** visible on the map.

Steps to Use Landmarks:

- **Identify Key Landmarks:** Look for natural or man-made landmarks on the map, such as rivers, mountains, cities, or roads.
- **Compare to Your Current Location:** Use your current location as a reference point and figure out the direction to the landmark. For example, if you're looking for a park, find the nearest park symbol on the map and determine the direction from your current location.

6. **Using a name ;** To determine the location of a place using its name, you can

use a digital map service like google maps, where you simply type the name of the place.

- Identify the name , type the name on the search bar and the service will pinpoint its location on a map based on geographical data , providing you with its latitude and longitude coordinates.

Assessment.

Determine the direction of the following towns using compass direction.

- Nairobi from Mombasa city
- Kitale from Busia town
- Entebbe from Jinja
- Arusha from Dar es salaam
- Addis Ababa from Nairobi