



Globes, Maps and Diagrams

Lesson Highlights

1. Globe
2. Map
3. Plan
4. Sketch
5. A Comparison of Globe, Map, Plan, and Sketch
6. Importance of maps
7. Elements of a map
8. Types of maps
9. Diagrams—River landforms, folding and faulting landforms

The Earth we live in is spherical in shape, but its upper and lower ends are flattened. You must have seen a satellite picture of the Earth. For the convenience of studying the Earth and the various features on it, geographers have prepared a small model of the Earth and named it 'globe'. You must have seen and used maps at various places. Maps are the medium of expressing various features of the Earth's surface on a flat piece of paper.

REPRESENTATION OF THE EARTH'S REALITY

Since ages, man has tried to depict his surroundings in various ways. Cave paintings are the earliest known example of such efforts made by the early man. He not only made pictures of animals, birds and fellow men but also tried to depict the area around him. The drawing of neighbouring areas emerged as the first map. Ptolemy is supposed to be the father of mapping. His first world map made around 2nd CE remained unchallenged up to the middle ages. He talked about some regions of the world that existed but were not known to the man. He coined the term "Terra Incognita" for such regions. Later, when the actual circumference of the earth was estimated; the path of making a small model of the Earth became easier. The earliest terrestrial globe

that has survived, was made around 1492 CE. A globe is the only true map of the world. It went through a series of improvements to reach the present stage. But, it had certain limitations too. Thus, various other means of depicting the earth's reality were developed to meet the requirement. Sketch, plans, maps, and diagrams are few to name among those.

Geo Fact



A Clay Tablet map of 5th century B.C. from Babylonia

The drawing of maps first originated as scribbles on clay tablets. Later, they were drawn and produced on cloth, stone, wood and leather.

Globe

A globe is a small scale three-dimensional model of the Earth. It is mounted on an axis,



Fig. 1.1 A Globe

on which it can rotate freely. Land masses and water bodies are printed on it with different colours. Several vertical and horizontal lines are drawn on the globe for locating any feature or a place. These lines form a grid system that helps us in finding exact location of a place. A globe has certain disadvantages like:

Due to its small size, globe is difficult to read.

It does not have enough space to cover finer details of every geographical feature.

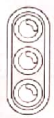
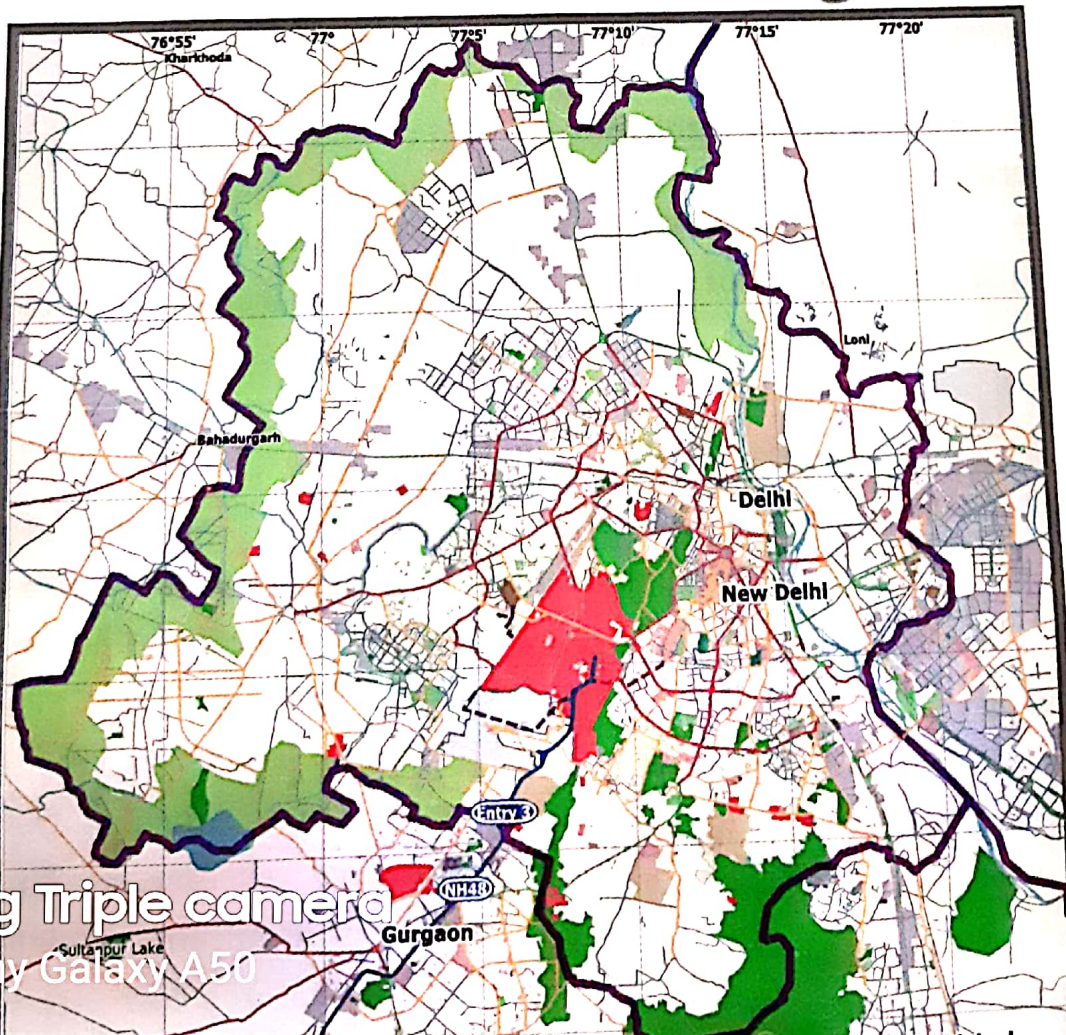
A globe occupies considerable space.

Due to its round shape, it is not easy to carry everywhere.

Soon geographers found out a solution for all these problems and produced maps.

Map

A map looks like an aerial view of some area. Imagine yourself in a hot-air balloon. If you look at the ground, you will view many features such as—roads, villages, farms, buildings, rivers, mountains, forests, plateaus, and streams. A map is a visual representation



Samsung Triple camera
Shot with my Galaxy A50

Map not to scale



Map No. 1.2 A Plan of Delhi

of a part of the Earth's surface, highlighting relationships between elements of that area such as distance, direction, and other objects. A collection of maps in the form of a book is called an atlas.

Geo Fact

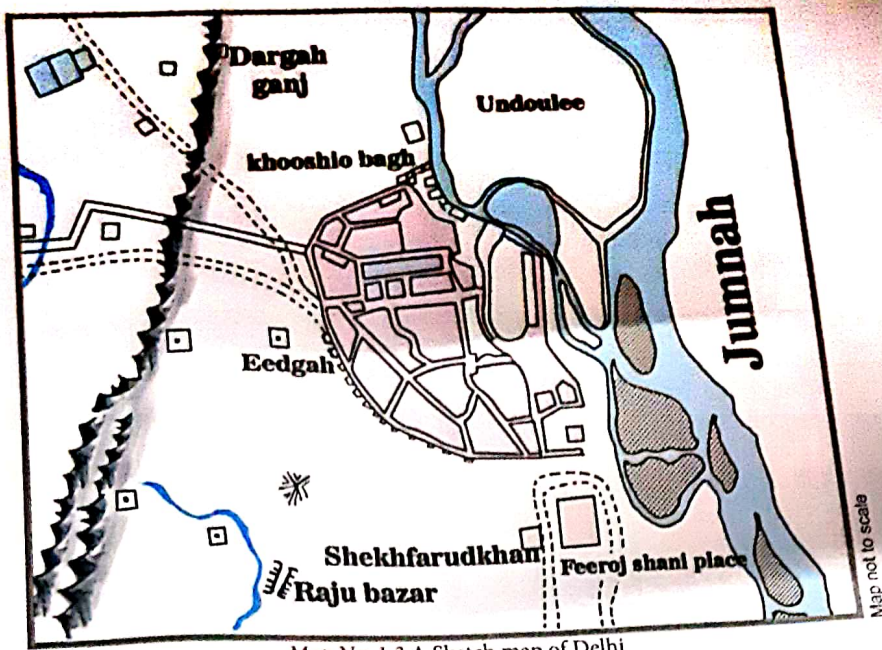
The word 'map' comes from the Latin word 'mappa' which means napkin. When spread out, a map is flat like a napkin.

Map-drawing is a specialised field. This field is called 'cartography'. The term cartography comes from two Greek words; 'chartis' meaning 'map' and 'graphein' meaning 'write'. Cartography is the art and science of map making. It includes a complete process of map generation, from basic surveying and data collection to final map production. A person

who develops a map is called 'cartographer'. Today, accurate maps can be produced at short interval very quickly with the help of advanced computers and softwares; such as— Geographic Information Systems (GIS).

Plan

A plan shows the details of a small area based on the actual measurements on the ground. It could be a plan of a house, a classroom, or a multi-storey building. The measurement and use of a scale is very important while drawing a plan. A plan is drawn with the help of drawing instruments. To draw a plan of a house or a building in detail, one needs to show the features correctly with reference to scale and direction.



Map No. 1.3 A Sketch map of Delhi

Sketch

A sketch is a rough and free hand drawing of the relative position of a place with respect to other. Such drawing is not based on any scale and does not have all the features of the area in detail. A sketch is used to help the people, to go from one area to another or give them an idea of any place in general. It is a drawing of some parts of towns, or a society, or colony; but it does not provide the internal details of that place.

MAP—A GEOGRAPHER'S LANGUAGE

A map is a two-dimensional representation of the Earth's surface. They are drawn accurately, based on scale. Directions and distances are always correct in each map. We cannot retain all the properties of the real world in a map.

Thus, it is important to know advantages and disadvantages of a map and its elements.

Importance of Maps

Maps are useful for all. We get accurate information about places, with the help of a map. People from different fields use map for different purposes. Initially, maps were used mainly for defence and strategic purposes. Army personnel planned their strategies according to information derived from the maps. Later, their use and function spread to diverse fields like—town and country planning department, population scientists, traffic managers, insurance personnel, manufacturing and distribution industries, historians, economic experts, political parties, news makers and even the common man.

	Area	Scale	Direction	Detailing
Globe	A globe covers the entire Earth.	A globe is always small scale.	A globe always has true directions.	Due to its small size, it does not have much details.
Map	A map could be of the whole world, a continent, or a state or a city; depending upon the scale.	A map can be small scale as well as large scale.	A map has north located on it. Thus, a map always has correct directions.	A map can have all the details of an area if it is large scale.
Plan	A plan is always for a small area. It cannot cover an area, larger than a city. Usually we have plans of a city, society, or a building.	A plan is always large scale.	A plan is drawn with proper drawing instruments and proportionate measurements. So, directions are almost correct in a plan.	A plan deals with a small part of the land so it contains much detailed information.
Sketch	A sketch could be for any area, country, state, city or any small location.	A sketch is always large scale.	A sketch is just free hand drawing and sometimes directions are not correctly shown on it.	A sketch does not carry finer details of the area. It just provides a broad outline of the area.

Table 1.1 A Comparison of Globe, Map, Plan and Sketch

Advantages of Maps

- Since maps are drawn on two-dimensional piece of paper, they are easy to fold and carry anywhere.
- Maps can also be drawn for any single theme to avoid complexity in the map image.
- Calculating the direction and distance between any two places is much easier on a map, in comparison to the globe.
- Maps are valuable document and study tool as well. They help in finding the change, over the period of time.

Disadvantages of Maps

- All the features of real earth surface cannot be reproduced on map as they have been transferred from a three-dimensional curved surface to a flat two-dimensional paper.
- Being two-dimensional, a map cannot retain all the properties of a globe. Selection of the properties depends on the purpose of the map.
- Maps are most accurate around the equator. Their distortion increases as they move away from the centre towards the poles.
- The shape and size of continents get distorted on various maps, depending on their projection.

for geography

□ Fill in the blanks -

1. _____ is the art and science of map making.
2. A person who develops a map is called _____.
3. The measurement and use of scale is very important while drawing a _____.
4. A collection of maps in the form of a book is called _____.
5. _____ is supposed to be the father of mapping.
6. Maps are more accurate around the _____.

□ Differentiate between -

1. A Globe and a map.
2. Plan and Sketch.
3. Map and Plan.

□ Answer the following questions -

1. Write two advantages and two disadvantages of map.
2. Write the importance of map.